US Army Corps of Engineers®

Department of the Army
Facilities Standardization Program

OPERATIONAL READINESS TRAINING COMPLEX (ORTC)

Standard Design

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Prepared by:
Center of Standardization (COS)
US Army Corps of Engineers, Louisville District
600 Dr. Martin Luther King Jr. Place
Louisville, KY 40202
Website: http://mrsi.usace.army.mil/cos/louisville/SitePages/ortc.aspx

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1.0 GENERAL STANDARD DESIGN PROGRAM INFORMATION

1.1. PURPOSE

This standard design for Operational Readiness Training Complexes provides economical, minimum essential housing, dining, admin and operational facilities to support Reserve Component Home Station Training (Annual and Weekend Transient Training), Active Component training when away from home station, and Mobilization/Demobilization. .

The Operational Training Complex Standard Design provides parameters for basic, austere but durable facilities to accommodate the following transient training functions:

- Administrative and Classrooms for Battalion level activities
- Billeting (open bay barracks and officer quarters)
- Dining
- Admin and supply for Company level activities
- Organizational vehicle and equipment maintenance with temporary warehouse storage
- Admin for Brigade level activities

Facility requirements are predicated on current force structure alignments established for Brigade Combat Teams (BCT), which are also adaptable for Future Combat Systems Units of Action (FCS UA). A Brigade Complex is predicated on six (6) individual battalion sets that can accommodate a population ranging from 752 (intended) to 880 (maximum capacity), and an overall BCT/UA population of 4512 (intended) to 5280 (maximum capacity).

1.2. BACKGROUND

The Army has been faced with a lack of transient training facilities. This shortage has developed since the early 1990's, when the Army began an aggressive facilities reduction program targeted at eliminating World War II wood facilities with virtually no construction to replace the capacity that was being demolished, and the training requirements placed on CONUS installations by numerous OCONUS operations/conflicts. This situation adversely impacts both the mobilizations of Army personnel and the Army concept of train-alert-deploy. Construction of ORTC facilities is intended to alleviate this shortage. The Operational Readiness Training Complexes will consist of permanently constructed, mission support facilities to accommodate transient training requirements for both active and reserve component (AC/RC) units.

1.3. ARMY FACILITIES STANDARDIZATION PROGRAM

This standard design package complies with the Army Standard as established by the Department of the Army Facilities Standardization Program implemented by the Army Facilities Standardization Committee (AFSC).

1.4. CENTER OF STANDARDIZATION

This standard design was developed in accordance with guidance provided by Headquarters, Department of the Army (HQDA), including facility design team members from Army staff agencies, Office of the Assistant Chief of Staff for Installation Management (OACSIM), Installation Management Command (IMCOM), U.S. Army Reserve Command (USARCOM), U.S. Army Forces Command (FORSCOM), U.S.

Army Training and Doctrine Command (TRADOC), and representatives from various National Guard Training Centers.

This standard design was monitored and approved by the facility proponent, HQDA, Deputy Chief of Staff, G-3.

This standard design package is based on requirements established for the Department of the Army Facilities Standardization Program. The Louisville District is the U.S. Army Corps of Engineers (USACE) Center of Standardization (COS) responsible for documenting and mandating ORTC standards and criteria.

The criteria presented in this standard design are applicable for ORTC facilities worldwide.
The COS serves as the point of contact to review all ORTC designs for compliance with this standard.

1.5. WAIVER REQUESTS

Waiver requests against the Army Standard must be approved by the COS, the OTJAG proponent, the Facility Design Group (FDG), and the AFSC. Waiver requests against the Standard Design must be approved by the COS and the OTJAG proponent. The Installation is responsible for initiating a waiver request in accordance with AR 420-1

1.6. RFP WIZARD

The standard design must be implemented in conjunction with the RFP Wizard, which includes requirements for Antiterrorism and Force Protection (AT/FP), Unified Facilities Criteria (UFCs), building codes, and sustainable design requirements within an automated design-build package development system. Coordinate with the project manager and the MRSI site, https://mrsi.erdc.dren.mil/model-rfp/ for use of the web-based RFP Wizard.

1.7. INSTALLATION SPECIFIC REQUIREMENTS

During development of the RFP Package, in addition to the RFP Wizard's paragraph 6 which addresses installation requirements, the following issues must be considered and included in the RFP Package accordingly:

A. The storage racks in the Vehicle Maintenance Shop warehouse are CFCI. The Installation will indicate what type is required.

B. The Installation will determine the POC parking requirement for each Battalion Set in addition to the minimum parking for the Small DFAC at 42 spaces, the Large DFAC at 64 spaces, and the Officers' Quarters (Senior Leaders' Quarters) at 20 spaces. The Standard Design illustrates POV parking for 10% of the Barracks occupants.

C. The Installation will determine whether each Barracks will accommodate the intended capacity of 160 (90 sf per person) or the surge capacity of 192 (72 sf per person) enlisted persons in the open bays. See drawing A004A.

D. The Installation will determine if any of the open bays in the barracks are needed to be furnished for functions other than sleeping. This option is intended to accommodate company functions until other

facilities are constructed or made available. Some options are, one for mermite can dining service, one for administration, and one for classrooms.

E. Verify the Installation's requirement for a Secure Communications Room to accommodate SIPRNET in the Brigade Headquarters. Also determine the requirements for an Intrusion Detection System (IDS) for the SCR room when applicable.

F. Verify the Installation's requirement for an overhead crane in the Vehicle Maintenance Shop. If so, the crane must support up to 10 tons and must be integrated into the building structure to operate over the entire maintenance bay area.

1.8. LEED COMPLAINCE

Refer to "LEED v4 BD+C Checklist" for information regarding the ORTC Standard Designs LEED compliance strategies. Installations, DOR's, and project design teams may choose specific credits for compliance based on opportunities that each individual project location and project specific conditions may offer. The information included is intended to be starting point for LEED compliance planning for ORTC Standard Design projects. Any variations between the different facility types covered by the ORTC Standard are indicated under the Notes column of the Checklist.

Refer to the Department of the Army Sustainable Design and Development Policy Update and UFC 1-200-02 High Performance and Sustainable Building Requirements for more information related to Energy and Sustainability Requirements applicable to Army Projects.

1.9. ORTC FACILITY CATEGORY CODE & FLOOR AREA

ORTC FACILITY CATEGORY CODES & FLOOR AREAS			
Facility Type	**Category Code**	*** Standard Design Area**	**Notes**
(BNHQ) Battalion Headquarters Building: Transient Training	14184	7,075 SF	The Army Standard maximum square footage requirement is 7,400 GSF per Battalion.
(BKS2) 2-Story Barracks: Transient Training (4 per Battalion)	72114	30,669 SF/ea	The Army Standard square footage varies by number of soldiers.
(BKS4) 4-Story Barracks: Transient Training (2 per Battalion)	72114	61,338SF/ea	The Army Standard square footage varies by number of soldiers.
(OQ) Officers Quarters (Senior Leaders Quarters): Transient Training	72412	23,030 SF	POH is COS 2-Story. The Army Standard square footage requirements varies by number of senior leaders.
(SMDF) Dining Facility: Transient Training - Small	72212	17,015 SF	NAO is COS. The Army Standard maximum square footage requirement is 18,000 GSF (feeds one Battalion).

(LGDF) Dining Facility: Transient Training - Large	72212	20,786 SF	NAO is COS. The Army Standard maximum square footage requirement is 21,300 GSF (feeds two Battalion).
(COHQ) Company Headquarters Building: Transient Training	14186	19,579 SF	The Army Standard maximum square footage requirement is 3,300 GSF per Company.
(VMS) Vehicle Maintenance Shop: Transient Training	21406	10,200 SF	Includes Warehouse. Standard maximum square footage requirement is 10,200 GSF per Battalion.
Motor Pool Hardstand	85210	33,000 SY	SY required excludes building footprints
(BGHQ) Brigade Headquarters Building: Transient Training	14187	10,238 SF	Include with 6 Battalions. Standard maximum square footage requirement is 10,300 GSF per Brigade.

*See Drawings in Attachment A for Area Calculations in accordance with UFC 3-101-01

1.10. BATTALION COMPLEX SITE

The Battalion Complex Site drawing C001, illustrates an ideal Battalion Complex. Other variations are possible to accommodate specific site conditions and parameters. Alternative site layouts must utilize the following functional site considerations imposed by the Department of the Army (DA):

A. Battalion Complex Facilities must be within reasonable walking distance of each other.

B. Closely locate or consolidate the Company Headquarters Facility with the Vehicle Maintenance Shop, preferably positioning both to take advantage of the fenced tactical vehicle hardstand area.

C. Centrally locate housing and dining facilities within the Battalion Complex.

D. Consolidate building types whenever possible. Examples: Battalion and Brigade Headquarters or two Officers' Quarters (Senior Leaders Quarters).

In addition, for functionality of the ORTC, the site must include the following Standard Design requirements:

E. Avoid placing limitations on access to dining facilities for deliveries and other buildings for maintenance or dumpster access during normal threat levels by placing control gates at specific building access ways rather than POV roads

F. The basis of design for sizing the tactical vehicle hardstand area is the Maneuver Battalion of the Armored BCT and the Tactical Equipment Maintenance Facility Standard Design. The

33,000 sy tactical vehicle hardstand excludes the footprints of the VMS and Company Headquarters.

G. The area behind the Company Headquarters is preferred to be within a fenced area, allowing for secure circulation for forklifts to access overhead doors.

H. Where required for building maintenance and fire truck access, sidewalks require design to accommodate the vehicles. Assure that access for fire trucks complies with fire protection requirements with access on three sides, including both long sides, of the Barracks and Officers' Quarters (Senior Leaders Quarters) within 33 feet or as determined by the Installation Fire Chief.

I. Mechanical yard and dumpster screen walls must be located and provided per ATFP and Installation requirements.

J. Utilize underground utility and telecommunications distribution where feasible.

K. Minimal landscaping must be provided as required by the Installation. All other areas must be seeded. Landscape with materials indigenous to the area, eliminating requirements for irrigation and minimizing maintenance.

1.11. BRIGADE COMPLEX SITE

The Brigade Complex Site illustrates a conceptual ideal Brigade Complex layout, shown on drawing C002. Other variations are possible to accommodate specific site conditions and installation parameters. Alternative site layouts must group the following for functional site considerations and prominence imposed by the Department of the Army (DA):

A. Command and Control Facilities (Battalion and Brigade Headquarters)

B. Community Facilities (Housing and Dining)

C. Operational Facilities (Vehicle Maintenance Shop and Company Headquarters)

2.0 SCOPE

2.1. OPERATIONAL READINESS TRAINING COMPLEX (ORTC)

2.1.1. BATTALION HEADQUARTERS BUILDING (BNHQ)

Provide Battalion Headquarters to house transient battalion level administrative functions for soldiers. This facility is intended to be similar both functionally and technically to office type facilities in the private sector community.

The total gross area for the Battalion Headquarters is 7,075 square feet.

2.1.2. BARRACKS (BK)

Provide Barracks facilities to house transient soldiers in an open bay configuration and senior leaders in a 2 bed per room configuration with shared bathroom. Showers, toilets, and laundry facilities are also provided. This facility is intended to be similar both functionally and technically to college dormitory facilities in the private sector community.

Two-Story Barracks (BKS2): Number of personnel to be housed is 168 per building. The total gross area for the Barracks is 30,669 square feet.

Four- Story Barracks (BKS4): Number of personnel to be housed is 336 per building. The total gross area for the Barracks is 61,338 square feet.

2.1.3. OFFICERS QUARTERS (OQ)

Provide Officers Quarters to house 80 persons, accommodating transient senior leaders in a 2 bed per room configuration, each with a bathroom. This facility is intended to be similar both functionally and technically to hotels in the private sector community

The total gross area for the Officers Quarters is 23,030 square feet.

2.1.4. DINING FACILITY (DF)

Provide Dining Facilities for food preparation and service, including a seated dining area. The seated dining area must also serve as a gathering place for group activities. This facility is intended to be similar both functionally and technically to college cafeteria facilities in the private sector community.

Provide a complete and functional Dining Facility:

Small Dining Facility (SMDF): For feeding 720 soldiers per meal within 90 minutes, three times per day, seven days a week, 52 weeks per year. The total gross area is 17,015 square feet. Dining area's minimum seating capacity must be 240 seats at tables.

Large Dining Facility (LGDF): For feeding 1428 soldiers per meal within 90 minutes, three times per day, seven days a week, 52 weeks per year. The total gross area is 19,579 square feet. Dining area's minimum seating capacity must be 510 seats at tables.

2.1.4.1. Dining Facility Staffing

Staffing is based on a 40-hour work week for menu planning, food layout, equipment operation, feeding station staffing, serving line stocking and the organization's mission support. The typical anticipated staffing for this facility is:

Small Dining Facility: Total Staff is 64 Persons. Maximum staff for a single shift is 35 persons.
- (1) Manager
- (1) Assistant Manager
- (2) Administration
- (2) Subsistence Clerk
- (1) Shift Leader
- (2) First Cook
- (28) Cooks
- (2) Headcounter
- (24) Dishwasher
- (1) Maintenance

Large Dining Facility: Total Staff is 90 persons. Maximum staffing for a single shift is 50 persons.
- (1) Manager
- (1) Assistant Manager
- (2) Administration
- (2) Subsistence Clerk
- (1) Shift Leader
- (2) First Cook
- (40) Cooks
- (4) Headcounter
- (36) Dishwasher
- (1) Maintenance

2.1.4.2. Dining Facility Equipment

Refer to the floor plan and equipment schedule in the drawings for equipment requirements. Equipment noted as “Leased” in the schedule must be identified in the design documents, provided with utility connections, and coordinated with the user of the facility. All computers and related hardware, copiers, faxes, printers, video projectors, VCRs, TVs, and Point of Sales equipment are GFGI. Coordinate with Government on GFGI item requirements providing suitable structural support, mounting brackets for projectors/VCRs/TVs, utility connections, and space with required clearances.

2.1.4.3. Dining Facility Furniture

Refer to the floor plan in the drawings for the required furniture layout. Tables and chairs must be GFGI as part of the FF&E Package in configurations indicated in the floor plan

2.1.5. COMPANY HEADQUARTERS BUILDING (COHQ)

Provide Company Headquarters to house transient company administrative operations and facilitate storage and movement of supplies. This facility type is intended to be similar both functionally and technically to office and warehouse facilities in the private sector community.

The total gross area for the Company Headquarters building is 19,579 square feet.

2.1.6. VEHICLE MAINTENANCE SHOP (VMS)

Provide Vehicle Maintenance Shop for maintaining and repairing vehicles and providing temporary storage of unit supplies and equipment. This facility type is intended to be similar both functionally and technically to equipment or motor pool facilities in the private sector community.

The total gross area for the Vehicle Maintenance Shop is 10,200 square feet.

2.1.7. BRIGADE HEADQUARTERS BUILDING (BGHQ)

Provide Brigade Headquarters to house transient brigade level administrative functions and Emergency Operations Center for command use. This facility is intended to be similar both functionally and technically to office facilities in the private sector community.

The total gross area for the Brigade Headquarters Building is 10,238 square feet.

2.2. SITE

Provide site design and construct improvements necessary to support the new building(s) and supporting facilities. Supporting facilities include, but are not limited to utilities, electric service, exterior and security lighting, fire protection and alarm systems, water, gas, sewer, parking, sidewalks, landscaping and handicap accessibility.

2.3. GOVERNMENT FURNISHED / GOVERNMENT INSTALLED (GFGI) EQUIPMENT FOR ALL BUILDINGS

Coordinate with the Installation for required GFGI items. Provide adequate structural support, (for projectors/VCRs/TVs), utility connections (including dryer ducts/vents), and space with required clearances for all GFGI items. Fire extinguishers are GFGI property, while fire extinguisher brackets and cabinets are contractor furnished and installed (CFCI). All computers and related hardware, copiers, faxes, printers, televisions with mounting brackets and projectors are GFGI provided by the Installation and are not part of the FF&E Package. Refrigerators, washers, and dryers are GFGI and are part of the FF&E Package.

2.4. FURNITURE REQUIREMENTS FOR ALL BUILDINGS

2.4.1. BARRACKS AND OFFICERS QUARTERS REQUIREMENTS:

A Furniture, Fixtures and Equipment design and package is NOT required for the Barracks or Officers Quarters facility types if standard unaccompanied housing design is used. Deviations from the standard furniture design will require a full furniture package. Provide furniture design as part of the development of the Furniture, Fixtures and Equipment Package (FF&E) as described in the appendices for all spaces listed in paragraph 3. Structural Interior Design (SID) is required for all facility types regardless of the requirements for the FF&E design and package. The basic space planning for the anticipated FF&E requirements in conjunction with the functional layout of the building and design issues such as life safety, privacy, acoustics, lighting, ventilation, lighting, ventilation, and accessibility is still required as part of the SID submittal, reference applicable Appendix for Preliminary FF&E Information including furniture dimensions sizes as shown in the Standard Design.

2.4.1.1 Government Furnished FF&E

A. Paragraphs 1.1 and 1.2 of Section 01 33 16, ATTACHMENT B, FURNITURE, FIXTURES & EQUIPMENT (FF&E) REQUIREMENTS must NOT BE USED for Barracks and Officers Quarters.
B. The Contractor must provide a furniture layout, for reference and coordination only to the Installation and Sub-Contractors at each submittal. Furniture must be Government-furnished, Government-installed. The Installation must be responsible for completing the Barracks and Officers Quarters furniture package based on the furniture layout provided by

the Contractor. The furniture package must be submitted by the Installation to Huntsville Center Furniture Team to be bid, purchased, and installed.

2.4.2 BRIGADE AND BATTALION HEADQUARTERS, DINING FACILITY, COMPANY HEADQUARTERS, AND VEHICLE MAINTENANCE SHOP REQUIREMENTS

Provide furniture design as part of the development of the Furniture, Fixtures and Equipment Package (FF&E) as described in the appendices for all spaces listed in paragraph 3. Include any existing furniture and equipment to be re-used if identified in paragraph 3. Coordinate with the user to define requirements for furniture systems, movable furniture, storage systems, equipment, any existing items to be reused, etc. Early coordination of furniture design is required for a complete and usable facility.

The procurement and installation of furniture is NOT included in the base bid for this contract. Furniture will be provided and installed under a separate furniture vendor/installer contract. The general contractor must accommodate that effort with allowance for entry of the furniture vendor/installer onto this project site at the appropriate time to permit completion of the furniture installation for a complete and usable facility to coincide with the Beneficial Occupancy Date (BOD) of this project. The furniture vendor/installer contract will include all electrical pre-wiring and the whips for final connection to the building electrical systems however; the general contractor must make the final connections to the building electrical systems under this contract. Furthermore, the general contractor must provide all Information/Technology (IT) wiring (i.e. LAN, phone, etc.) up to and including the face plate of all freestanding and/or systems furniture desk tops as applicable, the services to install the cable and face plates in the furniture, the coordination with the furniture vendor/installer to accomplish the installation at the appropriate time, and all the final IT connections to the building systems under this contract.

The Government reserves the right to change the method for procurement of and installation of Government Furnished Government Installed (GFGI) furniture to Contractor Furnished Contractor Installed (CFCI). CFCI furniture will require competitive open market procurement by the Contractor using the Furniture, Fixtures and Equipment (FF&E) package. Reference applicable appendix for Preliminary FF&E Information including furniture dimensions sizes as shown in the Standard Design.

3.0 OPERATIONAL READINESS TRAINING COMPLEX (ORTC) BUILDING FUNCTIONAL REQUIREMENTS

3.1. GENERAL RERQUIREMENTS:

A. STANDARD DESIGN DRAWINGS: The standard design drawings graphically integrate Army Standard requirements, including net square footage, functional adjacencies, and control zones. The designer of record must utilize regional and climatic criteria to influence the building design.

B. FUNCTION: Functional floor plans and conceptual site plans are provided for this facility in the applicable attachments and appendices. Use of these plans for the interior functional arrangement is mandatory. However, the plans may be modified to accommodate local, regulatory, engineering, architectural, life safety, and/or construction requirements at time of proposal. Additional consideration will be given for innovative, creative, or cost-saving proposals which meet or exceed the minimum requirements as established in the RFP.

C. VARIATIONS: Minor variations in the basic design forms of the facility types are permissible to accommodate proposed construction processes and materials. Building durability must not be diminished with the use of such systems as compared to the systems and finishes indicated in this package. Floor and site plans may change after award with Installation and Center of Standardization (COS) approval to enhance design, comply with codes, or support constructability.

3.1.1. FACILITY DESCRIPTION:

The ORTC provides for basic, austere, sustainable and durable facilities to accommodate transient training functions for the following facility types:

A. BNHQ: The single-story transient training Battalion Headquarters supports command and control functions in private offices, open offices, and conference rooms.

B. BKS2: Each two-story transient training Barracks has eight open bays to accommodate E1-E6 grade personnel. In addition to the open bays, each building has four semi-private senior leader sleeping rooms with baths to accommodate E7-E8 grade personnel. A company room on each floor provides multi-use space for entertainment, administration, equipment storage, or conferencing usage.

C. BKS4: Each four-story transient training Barracks has sixteen open bays. In addition to the open bays, each building has eight semi-private senior leader sleeping rooms with baths. A company room on each floor provides multi-use space for entertainment, administration, equipment storage, or conferencing usage.

D. OQ: Each two-story transient training Officers' Quarters (Senior Leaders Quarters) has forty semi-private senior leader sleeping rooms with baths to accommodate E7-E8 grade personnel.

E. SMDF: The single-story transient training small Dining Facility feeds 720 persons (one battalion) in three 30-minute feeding periods with two serving lines, assuming 95% ORTC personnel utilization.

F. LGDF: The single-story transient training large Dining Facility feeds 1428 persons (two battalions) in three 30-minute feeding periods with two serving lines, assuming 95% ORTC personnel utilization.

G. COHQ: The single-story transient training Company Headquarters provides separate logistics suites and administrative suites for each of the six companies in a battalion. Each of the six admin suites consist of private offices, open offices, and a conference room. Each of the six logistics suites consist of an arms vault and company storage space.

H. VMS: The single-story transient training Vehicle Maintenance Shop supports a battalion unit's vehicle and equipment maintenance and temporary storage of supplies and equipment. The facility

provides a warehouse, tool storage, weapons cleaning area, and two drive-through service bays. As a transient training VMS, this facility's criteria differs from a Tactical Equipment Maintenance Facility (TEMF).

I. BGHQ: The single-story transient training Brigade Headquarters supports command and control functions in private offices, open offices, and conference rooms.

3.1.2. FACILITY RELATIONSHIPS:

This paragraph provides insight to standard design intentions and only applies to projects without a dictated site plan.

3.1.2.1. FUNCTIONAL SITE REQUIREMENTS: The Battalion Complex Site drawing C001, illustrates an ideal Battalion Complex. Other variations are possible to accommodate specific site conditions and parameters. Alternative site layouts must utilize the following functional site considerations imposed by the Department of the Army (DA):

1) Battalion Complex Facilities must be within reasonable walking distances of each other.

2) Closely locate or consolidate the Company Headquarters Facility with the Vehicle Maintenance Shop, preferably positioning both to take advantage of the fenced tactical vehicle hardstand area.

3) Centrally locate housing and dining facilities within the Battalion Complex.

3.1.2.2. MISCELLANEOUS SITE REQUIREMENTS: In addition, for functionality of the ORTC, the site must include the following Standard Design requirements:

1) Avoid placing limitations on access to dining facilities for deliveries and other buildings for maintenance or dumpster access during normal threat levels by placing control gates at specific building access ways rather than POV roads

2) The 33,000 sy tactical vehicle hardstand excludes the footprints of the VMS and Company Headquarters.

3) The area behind the Company Headquarters is preferred to be within a fenced area, allowing for secure circulation for forklifts to access overhead doors.

4) Utilize underground utility and telecommunications distribution where possible.

3.1.3. ACCESSIBILITY REQUIREMENTS:

A. ACCESSIBLE FACILITIES: The following facility types must be accessible, to include POV parking, complying with the Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities Standards for Department of Defense Facilities, as currently amended:

1) Battalion Headquarters.
2) Brigade Headquarters.
3) Dining Facility - Accessibility for the disabled must be provided generally throughout the dining facility, including staff and patron restrooms, dining areas, and administrative areas. However, kitchen and serving equipment is not required to be accessible; Pathways through these equipment and serving areas must be accessible.

B. ABLE-BODIED FACILITIES: The following facility types are intended to be occupied by able-bodied personnel only, therefore are not required to be accessible:

1) 2-Story Barracks.
2) 4-Story Barracks.
3) Officers' Quarters (Senior Leaders' Quarters).

4) Company Headquarters.
5) Vehicle Maintenance Shop.

3.1.4. BUILDING AREAS:

A. GENERAL: Area requirements for circulation space and utility rooms are to the discretion of the designer of record in accordance with applicable codes and requirements, counted in the gross square footage for each facility type. Coordinate column spacing and layout with the building floor plans concealing columns within or aligning with walls. Plan column placement to not interfere with the functionality of the space, providing clear spans for the larger open areas shown in the standard design plans.

B. GROSS AREA: Maximum building gross areas indicated in paragraph 2.0 SCOPE must not be exceeded. A smaller overall gross area is allowed if all functional relationships in the floor plans and mandated net areas indicated in the building finish schedules are met. Contractor must clearly indicate proposed overall building(s) gross area calculation, to include net areas, building gross area, and half scope areas.

C. HALF SPACE: Half scope areas must be included in the gross area for balconies and porches; overhangs greater than 3'-0" in width, exterior covered loading platforms or facilities, either depressed, ground level, or raised; covered but not enclosed passageways or walks; covered and uncovered but open stairs; and covered ramps.

D. EXCLUDED SPACE: The following must not be included in the gross building area: Crawl spaces; exterior uncovered loading platforms or facilities, either depressed, ground level, or raised; open paved terraces; roof overhangs and soffits for weather protection 3'-0" or less in width; uncovered ramps; uncovered stoops; and utility tunnels and raceways.

E. NET AREA: The standard floor plans mandate authorized space allowances for the functional areas as indicated on the drawings in the building finish schedules. Net area is measured to the inside face of the room finish walls. Net area requirements for programmed spaces are sized to accommodate the functional requirements, overall gross area limitations, and other recognized design principles. If net area requirements are not indicated as mandated, the space must be sized to accommodate the required function, comply with code requirements, and comply with overall gross area.

3.1.5. ADAPT BUILD MODEL: (NOT USED)

3.2. FUNCTIONAL AND OPERATIONAL REQUIREMENTS:

3.2.1.BNHQ FUNCTIONAL SPACES – BATTALION HEADQUARTERS (BNHQ)

A. GENERAL:

1) Standard Design Drawings: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, doors, and windows.

2) ATFP Building Occupancy Level: The Battalion Headquarters must be considered "primary gathering" with respect to ATFP requirements.

B. PRIMARY SPACES:

1) Administration Area:

a) Private Offices: Provide the following private offices: Commander, CSM, Executive Officer (XO), S1 Officer, S2 Officer, S3 Officer, S4 Officer, S6 Officer, and Chaplain.

b) Open Office: Provide open office space for 20 workstations at 6'x6' each. Include adequate circulation, file storage, and printer/copier/fax space.

c) Conference Room: Provide a conference room to accommodate a minimum of 16 PN with direct access to the open office area.

d) Storage: Provide a storage room for office supplies. Provide a Medical Storage room for equipment.

e) Break Area: In the open office area near the conference room, provide a break area to accommodate a coffee maker (providing adequate height to operate), a small microwave, dish storage, and dish washing.

C. COMMON AND UTILITY AREAS:

1) Lobby: Lobby must serve as a waiting area for the chaplain and admin area.

2) Vestibule: Provide an enclosed transition space between the exterior and lobby. Include a clearance between doors to accommodate a 10'-0" long walk-off grate which is easily cleaned on a weekly basis to meet LEED credit requirements.

3) Corridors: Minimum corridor width must be 6'-0".

4) Janitor's Closet: Provide one janitor's closet.

5) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. Provide a single out swinging interior door with panic hardware for the electrical room when required by code. Provide a dedicated interior room for telecommunications equipment, minimum 1.1% of the building footprint.

6) Mail Distribution Room: This room is intended for mail distribution by the user, not direct postal delivery, therefore ATFP mail room requirements do not apply. Locate room on an outside wall.

7) Vending/Recycle Area: Include space for one full size soft drink and one full size snack vending machine, which will be provided by others. Provide space for five recycling bins as part of the FF&E Package to meet LEED requirements.

8) Bootwash: Provide bootwashes at the two main exterior entries.

3.2.1.BKS2 FUNCTIONAL SPACES – TWO STORY BARRACKS (BKS2)

A. GENERAL:

1) Standard Design Drawings: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, doors, and windows.

2) Personnel Capacity: Each two-story Barracks building is intended to house a total of 168 personnel, 160 in grades E1-E6 utilizing furniture options, and 8 Senior Leader personnel. A Battalion set of Barracks therefore accommodates 640 E1-E6 personnel and 32 Senior Leader personnel exclusive of the Officers' Quarters building.

3) Surge Capacity: The facility HVAC, utility systems, and fixtures must be designed to support a "surge" of an additional four persons in each of the E1-E6 bays, which can be achieved by adding four bunks in each bay. This increases the capacity of the building to 192 E1-E6 personnel and 8 Senior Leaders for a total of 200 persons, increasing the capacity of a Battalion set of Barracks from 672 (intended) to 800 (maximum).

4) ATFP Building Occupancy Level: The Barracks must be considered "billeting" with respect to ATFP requirements.

B. PRIMARY SPACES:

1) Open Bays: Provide minimum of 10 exterior windows per bay, coordinating wall space needed for bunks and storage cabinets. Interior columns or pilasters at the supporting walls must not be used to allow for more efficient furniture layouts.

2) Senior Leaders' Quarters (SLQ):

   a) Sleeping Rooms: The two built-in closets in each SLQ must include minimum 3'-0" wide doors. Each sleeping room must include at least one exterior window at 3'-0" above finish floor.

   b) Bath and Sink Areas: Provide floor mounted toilets with full seats and seat covers. Provide minimum 2'-4" wide bath doors.

3) Laundry Rooms: Each laundry room must accommodate 8 heavy duty clothes washers and 10 heavy duty clothes dryers as part of the FF&E Package which is not in this contract.

4) Showers: Provide six shower stalls in each shower area with seats in dressing areas.

5) Company Rooms: Company Storage is intended to be flexible in use, as determined by each Unit or Units occupying the building. This space may be used for administration, equipment storage, or conferencing. Weapons storage is also an option for this space, assuming proper security measures are taken by the individual units. As the minimum requirement, each company room must accommodate seating for a minimum 14 people at a conference table and space for a wall mounted television. Assure adequate framing is provided to support a large flat screen television for training/briefings as well as entertainment. The television and mounting bracket must not be in the contract since it will be included in the government's FF&E Package.

C. COMMON AND UTILITY AREAS:

1) Vestibules: Provide enclosed transition spaces between the exterior and central corridor. Include a clearance between doors to accommodate a 10'-0" long walk-off grate to meet LEED credit requirements.

2) Corridors: Provide a minimum 6'-0" aisle between sleeping areas in open bays.

3) Stairs: Provide circulation to the second floor at each end and near the front entrance. Include windows at landings for light and view.

4) Janitor's Closets: Provide a janitor's closet on each floor.

5) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. Second floor mechanical room (if provided) must include an interior access door and double exterior doors (or removable louver) for equipment replacement. Main electrical room must be located on the first floor. Provide a single out swinging interior door with panic hardware for the electrical rooms when required by code. Provide dedicated interior rooms for telecommunications equipment, minimum 8'x10' on the first floor and minimum 6'x8' on the second floor.

6) Vending/Recycle Areas: Include space for one full size soft drink and one full size snack vending machine on each floor, which will be provided by others. Provide space for five recycle bins to meet LEED credit requirements.

7) Bootwashes: Provide bootwashes at the front and back exterior entries.

3.2.1.BKS4 FUNCTIONAL SPACES – FOUR STORY BARRACKS (BKS4)

A. GENERAL:

1) Standard Design Drawings: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, doors, and windows.

2) Personnel Capacity: Each 4-story Barracks building is intended to house 320 personnel in grades E1-E6 utilizing furniture options, and 16 Senior Leader personnel. A Battalion set of Barracks therefore accommodates 640 E1-E6 personnel and 32 Senior Leader personnel exclusive of the Officers' Quarters building.

3) Surge Capacity: The facility HVAC, utility systems, and fixtures must be designed to support a "surge" of an additional four persons in each of the E1-E6 bays, which can be achieved by adding four bunks in each bay. This increases the total capacity of the building to 384 E1-E6 personnel and 16 Senior Leader spaces for a total of 400 persons, increasing the capacity of a Battalion set of Barracks from 672 (intended) to 800 (maximum).

4) ATFP Building Occupancy Level: The Barracks must be considered "billeting" with respect to ATFP requirements. Barracks must be provided with electronic access on entry doors for "controlled public access" for progressive collapse design.

B. PRIMARY SPACES:

1) Open Bays: Provide minimum of 10 exterior windows per bay, coordinating wall space needed for bunks and storage cabinets. Interior columns or pilasters at the supporting walls must not be used to allow for more efficient furniture layouts.

2) Senior Leaders' Quarters (SLQ):

a) Sleeping Rooms: The two built-in closets in each SLQ must include minimum 3'-0" wide doors. Each sleeping room must include at least one exterior window at 3'-0" above finish floor.

b) Bath and Sink Areas: Provide floor mounted toilets with full seats and seat covers. Provide minimum 2'-4" wide bath doors.

3) Laundry Rooms: Each laundry room must be provided 8 heavy duty clothes washers and 10 heavy duty clothes dryers as part of the FF&E Package which is not in this contract.

4) Showers: Provide six shower stalls in each shower area with seats in dressing areas.

5) Company Rooms: Company Storage is intended to be flexible in use, as determined by each Unit or Units occupying the building. This space may be used for administration, equipment storage, or conferencing. Weapons storage is also an option for this space, assuming proper security measures are taken by the individual units. As the minimum requirement, each company room must accommodate seating for a minimum 14 people at a conference table and space for a wall mounted television. Assure adequate framing is provided to support a large flat screen television for training/briefings as well as entertainment. The television and mounting bracket must not be in the contract since it will be GFGI.

C. COMMON AND UTILITY AREAS:

1) Vestibules: Provide enclosed transition spaces between the exterior and central first floor corridor. Include a clearance between doors to accommodate a 10'-0" long walk-off grate to meet LEED credit requirements.

2) Corridors: Provide a minimum 6'-0" aisle between sleeping areas in open bays.

3) Stairs: Provide circulation to the second floor at each end and near the front entrance. Include windows at landings for light and view.

4) Elevator: Provide one oil-less elevator with minimum 2500 lb capacity, primarily to move furnishings and to assist soldiers in reaching upper floors with assigned equipment and personal luggage. Elevator is not intended to escape fire or provide handicap accessibility. Elevator interior clear floor area must be sized to accommodate a gurney; therefore, minimum elevator cab clear depth must be 7'-6". Minimum elevator finishes must include stainless steel walls and doors with paver floors and lighted ceiling. Freight pads and attachment hardware

must be provided. Include an appropriately sized elevator hoist way, elevator room or closet per UFC.

5) Janitor's Closets: Provide a janitor's closet on each floor.

6) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. Upper floor mechanical rooms (if provided) must each include an interior access door and double exterior doors (or removable louver) for equipment replacement. Double height mechanical rooms are acceptable in lieu of a mechanical room on each floor. Main electrical room must be located on the first floor. Provide a single out swinging interior door with panic hardware for the electrical rooms when required by code. Provide dedicated interior rooms for telecommunications equipment, minimum 8'x10' on the first floor and minimum 6'x8' on the upper floors.

7) Vending/Recycle Areas: Include space for one full size soft drink and one full size snack vending machine on each floor, which will be provided by others. Provide space for five recycle bins to meet LEED credit requirements.

8) Bootwashes: Provide bootwashes at the four exterior entries.

3.2.1.OQ FUNCTIONAL SPACES – OFFICERS' QUARTERS (OQ)

A. GENERAL:

1) Standard Design Drawings: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, doors, and windows.

2) Capacity: The Officers' Quarters (Senior Leaders Quarters) is a two-story building housing up to 80 senior leaders in 40 living/sleeping rooms. The Officers' Quarters are sized to accommodate a heavy armor BCT to include the E7 and E8 personnel that cannot be housed in the semi-private Senior Leader Quarters in the Barracks.

3) Living Module: Each living module consists of two semi-private rooms. Each room has a bathroom with shower, a sink outside the bathroom, two closets, and a space for two beds. The rooms can be assigned as double or single occupancy consistent with space authorized by grade. Laundry rooms, activity rooms, and vending are available on each floor.

4) Consolidate Facilities: If two Battalion complexes are required, and two Officers' Quarters (Senior Leaders Quarters) are required, the two buildings may be consolidated into a single facility. Methods for combining the buildings, including adding stories (requiring an elevator for buildings over two stories), must meet the design criteria set forth in this Standard Design as determined by the COS.

5) ATFP Building Occupancy Level: The Officers' Quarters must be considered "billeting" with respect to ATFP requirements.

B. PRIMARY SPACES:

1) Senior Leaders' Quarters (SLQ):

a) Sleeping Rooms: The two built-in closets in each SLQ must include minimum 3'-0" wide doors. Each sleeping room must include at least one exterior window at 3'-0" above finish floor. Columns or pilasters along the walls must not be used to allow for an efficient furniture layout.

b) Bath and Sink Areas: Provide floor mounted toilets with full seats and seat covers. Provide minimum 2'-4" wide bath doors.

2) Laundry Rooms: Each laundry room must be provided 4 heavy duty clothes washers and 5 heavy duty clothes dryers as part of the FF&E Package which is not in this contract.

3) Common Areas: These spaces may be used for administration or conferencing. Provide spaces for casual seating to view a wall mounted television in each area. Assure adequate framing is provided to support a large flat screen television for training/briefings as well as entertainment. The television and mounting bracket must not be in the contract since it will be GFGI. Provide space for tables with seating. Within the common area on the second floor, provide a kitchenette with space for a refrigerator/freezer as part of the FF&E, which is not part of this contract, stainless steel double basin sink, and space for a microwave oven, which will be provided by others. Provide base and wall cabinets, 8'-0" minimum length.

C. COMMON AND UTILITY AREAS:

1) Vestibule: Provide an enclosed transition space between the exterior and lobby. Include a clearance between doors to accommodate a 10'-0" long walk-off grate to meet LEED credit requirements.

2) Corridors: Minimum corridor width is 5'-0".

3) Stairs: Provide circulation to the second floor near the front entrance and at the end of the corridor. Both stairs must be enclosed with windows included for light and view. The Installation may choose to use a covered, open stair at the end of the second floor corridor in lieu of an enclosed stair.

4) Storage Rooms: Provide a storage room on each floor, including full built-in adjustable shelving.

5) Janitor's Closets: Provide a janitor's closet on each floor, including service faucet with hose and bracket, mop rack and floor drain.

6) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. The second floor mechanical room must include an interior access door and double exterior doors (or removable louver) for equipment replacement. The main electrical room must be located on the first floor. Provide a single out swinging interior door with panic hardware for the electrical rooms when required by code. Provide dedicated interior rooms for telecommunications equipment, minimum 8'x10' on the first floor and minimum 6'x8' on the second floor.

7) Vending/Recycle Areas: Include space for one full size soft drink and one full size snack vending machine on each floor, which will be provided by others. Provide space and appropriate utilities for a GFGI ice machine, provided in the FF&E Package. Provide space for five recycle bins to meet LEED credit requirements.

8) Bootwashes: Provide a bootwash at the two exterior entries.

3.2.1.SMDF FUNCTIONAL SPACES – SMALL DINING FACILITY (SMDF)

A. GENERAL:

1) Standard Design: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, kitchen equipment schedule, doors, and windows.

2) Capacity: The Dining Facility is designed to feed personnel based on three 30 minute feeding periods, with two serving lines operating to assume 95% of the personnel are utilizing the facility. The Small DFAC must feed 720 personnel or one Battalion.

3) Equipment/Furniture: Government furnished, government installed (GFGI) equipment will be delivered prior to final completion of the building. When requested, the contractor must provide an optional bid to provide and install all GFGI equipment items. In all cases, the contractor must plan for and coordinate installation of this equipment as well as for vendor-provided equipment, and must provide clearances, space, power, data, water, drains, conduits, etc. as

required for equipment to be operational. The contractor must consider the heat generated by all equipment in determining cooling loads. See drawings for kitchen equipment plans for identification of contractor furnished, contractor installed (CFCI) items versus GFGI and Vendor furnished/installed equipment. In addition, all movable furnishings will be provided using the contractor prepared FF&E Package and GFGI items unless otherwise indicated. All food service equipment must be certified by the National Sanitation Foundation, International.

4) ATFP Building Occupancy Level: The Dining Facility must be considered "primary gathering" with respect to ATFP requirements.

B. PRIMARY SPACES:

1) Dining Areas: Provide two seating areas for dining with required seating capacity as shown on the drawings. For each seating area, provide hand-washing, queue line area, cashiers, and food service line. The two seating areas must share the centrally located salad/self-service bar, beverage dispensing area, and dishwash area. Provide a minimum of four separate television (ceiling- or wall-mounted) locations dispersed throughout each dining area. Provide mounting bracket capable of supporting a 60-inch flat screen television. Minimize column and pilaster use for most efficient furniture layout.

   a) Queuing, Exterior Entrance Canopies: Provide fully covered areas to protect patrons while waiting to enter, which may be detached from the building, having a continuous cover to the entrance doors. Construct canopies to prohibit bird nesting.

   b) Queuing, Interior: Provide interior space for queuing functions including hand washing, headcount, and waiting. Provide location and mounting bracket for 60" flat panel monitor for menu display. Provide point-of-sale or headcount station. Point-of-Sale or headcount station equipment is GFGI.

   c) Food Service Line: Provide dedicated area for food service with tray slides. All tray slides for the service line and elsewhere must accommodate the full depth of a 14-inch deep tray. Exhaust Hoods on the serving lines must be provided with a manual on/off switch.

2) Kitchen: Provide kitchen space without columns (to the maximum extent possible) for placement and safe operation of the kitchen equipment reflected in the floor plan and equipment schedule provided in the drawings. Kitchen space includes the walk-in refrigerators and freezer.

   a) Cold Storage: Provide walk-in cold storage floors at the same elevation as the kitchen floor. Drain lines must not intrude on the working aisles. Operating temperatures must be as indicated in TB Med 530. Provide Slab Frost Heave Protection in addition to the insulated slab for all freezers over 225 square feet.

   b) Dry Storage: Provide one telephone receptacle, one data receptacle, and a double duplex electrical receptacle at desk location inside room. One door leaf must be "Dutch" type with a minimum 10-inch deep shelf on the dry storage side. Provide bumpers or other protective feature to prevent wall damage from mobile racks.

3) Dishwash: Provide dedicated space for dishwashing. Ceiling heights in dishwashing room must be coordinated with the dishwashing equipment, minimum 10'-6" high. Coordinate side clearance for removal of the inspection doors on the dishwashing machines. Dishwashing room exhaust ducts must be as short as possible with direct runs to outside of building. Ductwork must have watertight joints and a drain line from the low point. Provide a minimum of 10 air changes per hour or 25% more than dishwasher exhaust requirement, whichever is greater. Approximately 75 percent of the room air will be exhausted thru the dishwasher, with the remainder exhausted at the ceiling. Ceiling exhaust must run continuous while the facility is occupied. Dishwash room drains must be directed to the solids and grease interceptors.

4) Soda Room: Provide space for the vender-provided CO2 tanks for the beverage station. Provide two empty 6-inch conduits with pull string from the soda room to each beverage station. Provide water filters for the water to be distributed to the beverage stations.

5) Offices: Provide an admin office and a manager office. Include a minimum of three telephone and data receptacles in each office (one telephone/data outlet centered on each wall without a door). Provide unobstructed visual monitoring of food preparation areas from each office with a window through the separating wall. Provide two bulletin boards, one mounted inside administrative office and one outside administrative office door. Provide wall or floor mounted anchor for safe in administrative office.

C. COMMON AND UTILITY SPACES:

1) Patron Toilets: Provide standard toilet accessories including mirrors for the full width of the vanities, combination paper towel dispenser/waste paper receptacle units, liquid soap dispensers, toilet tissue dispensers, coat hooks, and sanitary napkin disposers (women's toilet only). Toilet partitions and urinal screens must be solid polymer material with a minimum 3/4-inch thickness. Partition doors must be provided with an overlapping door option at both vertical door edges for privacy.

2) Staff Men's and Women's Toilet & Shower Rooms: Provide one unisex handicap accessible shower room including shower unit, bench, curtain, rod, towel pins, and soap/shampoo shelf. Provide separate men and women handicap accessible toilet rooms, each with toilet, lavatory, toilet tissue dispenser, paper towel dispenser, waste receptacle, and coat hook.

3) Staff Locker Room: Provide 12" wide x 15" deep x 72" tall, ventilated, four-tier (18" high each) lockers. Provide minimum of 42 lockers or the maximum number that will fit in the available space, whichever is greater. Lockers must be mounted on locker manufacturer's base and must have a sloped top. Provide a 120V receptacle along with a telephone/data jack on each wall of the locker room except where the entire wall is covered by lockers.

4) Janitor Closets: Provide a janitor closet in the kitchen area and in the dishwash area. Provide floor mounted stainless steel mop sink 33" x 25" x 10" high, service faucet, mop hangar, hose, and bracket. Provide one 18" deep x 60" long x 48" high four tier, heavy duty shelving unit for storage of cleaning supplies.

5) Can Wash: Provide a can wash off the loading dock. Provide exterior hose bib inside can wash. Slope floor to drain. Floor surface must be free of curbs or other obstructions that prohibit rolling garbage cans or equipment into the space. Provide can drying racks, mop racks, and broom storage racks out of range of spray from cleaning equipment. Provide waterproof membrane behind the cement board and ceramic tile to create a continuous water barrier.

6) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. Provide double doors for the mechanical room. Provide a single out swinging interior door with panic hardware for the electrical room when required by code. Provide a dedicated interior room for telecommunications equipment, minimum 1.1% of the building footprint.

3.2.1.LGDF FUNCTIONAL SPACES – LARGE DINING FACILITY (LGDF)

A. GENERAL:

1) Standard Design Drawings: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, kitchen equipment schedule, doors, and windows.

2) Capacity: The Dining Facility is designed to feed personnel based on three 30 minute feeding periods, with two serving lines operating to assume 95% of the personnel are utilizing the facility. The Large DFAC must feed 1428 personnel or two Battalions.

3) Equipment/Furniture: Government furnished, government installed (GFGI) equipment will be delivered prior to final completion of the building. When requested, the contractor must provide an optional bid to provide and install all GFGI equipment items. In all cases, the contractor must plan for and coordinate installation of this equipment as well as for vendor-provided equipment, and must provide clearances, space, power, data, water, drains, conduits, etc. as required for equipment to be operational. The contractor must consider the heat generated by all equipment in determining cooling loads. See Attachment A for kitchen equipment plans for identification of contractor furnished, contractor installed (CFCI) items versus GFGI and Vendor furnished/installed equipment. In addition, all movable furnishings will be provided using the contractor provided FF&E Package and GFGI items unless otherwise indicated. All food service equipment must be certified by the National Sanitation Foundation, International.

4) Roof/Ceiling: The roof must be designed for roof mounted equipment with mansards or parapets for screening. Finished ceiling heights must not exceed 14 feet except in areas where clerestories or other daylighting is incorporated to enhance sustainable design. Regardless of the ceiling features provided, no building structure or materials must be exposed due to cleanliness requirements.

5) ATFP Building Occupancy Level: The Dining Facility must be considered “primary gathering” with respect to ATFP requirements.

B. PRIMARY SPACES:

1) Dining Areas: Provide two seating areas for dining with required seating capacity as shown on the drawings. For each seating area, provide hand-washing, queue line area, cashiers, and food service line. The two seating areas must share the centrally located salad/self-service bar, beverage dispensing area, and dishwash area. Provide a minimum of four separate television (ceiling- or wall-mounted) locations dispersed throughout each dining area. Provide power, CATV connection, and mounting bracket capable of supporting a 60-inch flat screen television. Provide chair rails and impact-resistant wainscots to protect wall surfaces. Minimize column and pilaster use for most efficient furniture layout.

   a) Queuing, Exterior Entrance Canopies: Provide fully covered areas to protect patrons while waiting to enter, which may be detached from the building, having a continuous cover to the entrance doors. Provide lighting for safety and security. Construct canopies to prohibit bird nesting. Provide lighted, weather resistant daily menu display case outside the entry doors. Display case must be a minimum of 18” x 24”.

   b) Queuing, Interior: Provide interior space for queuing functions including hand washing, headcount, and waiting. Provide power, CATV connection, data, and mounting bracket for 60” flat panel monitor for menu display. Provide point-of-sale or headcount stations. Point-of-Sale or headcount station equipment is GFGI.

   c) Food Service Line: Provide dedicated area for food service with tray slides. All tray slides for the service line and elsewhere must accommodate the full depth of a 14-inch deep tray. Exhaust Hoods on the serving lines must be provided with a manual on/off switch.

2) Kitchen: Provide kitchen space without columns (to the maximum extent possible) for placement and safe operation of the kitchen equipment reflected in the floor plan and equipment schedule provided in the drawings. Kitchen space includes the walk-in refrigerators and freezer.

   a) Cold Storage: Provide walk-in cold storage floors at the same elevation as the kitchen floor. Drain lines must not intrude on the working aisles. Operating temperatures must be as indicated in TB Med 530. Provide Slab Frost Heave Protection in addition to the insulated slab for all freezers over 225 square feet.

   b) Dry Storage: One door leaf must be “Dutch” type with a minimum 10-inch deep shelf on the dry storage side.

3) Dishwash: Provide dedicated space for dishwashing. Ceiling heights in dishwashing room must be coordinated with the dishwashing equipment, minimum 10'-6" high. Coordinate side clearance for removal of the inspection doors on the dishwashing machines.

4) Soda Room: Provide space for the vender-provided CO2 tanks for the beverage station.

5) Offices: Provide an admin office and a manager office. Provide unobstructed visual monitoring of food preparation areas from each office with a window through the separating wall. Provide wall or floor mounted anchor for safe in administrative office.

C. COMMON AND UTILITY SPACES:

1) Patron Toilets: Provide men's and women's handicap accessible restrooms for dining facility patrons.

2) Staff Men's and Women's Toilet & Shower Rooms: Provide one unisex handicap accessible shower room including shower unit, bench, curtain, rod, towel pins, and soap/shampoo shelf. Provide separate men and women handicap accessible toilet rooms.

3) Staff Locker Room: Provide minimum of 42 lockers or the maximum number that will fit in the available space, whichever is greater.

4) Janitor Closets: Provide a janitor closet in the kitchen area and in the dishwash area.

5) Can Wash: Provide a can wash off the loading dock. Floor surface must be free of curbs or other obstructions that prohibit rolling garbage cans or equipment into the space. Provide waterproof membrane behind the cement board and ceramic tile to create a continuous water barrier.

6) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. Provide double doors for the mechanical room. Provide a single out swinging interior door with panic hardware for the electrical room when required by code. Provide a dedicated interior room for telecommunications equipment, minimum 1.1% of the building footprint.

3.2.1.COHQ FUNCTIONAL SPACES – COMPANY HEADQUARTERS (COHQ)

A. GENERAL:

1) Standard Design Drawings: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, kitchen equipment schedule, doors, and windows.

2) Function: The Company Headquarters serves training and mobilization functions for a battalion. The facility consists of six company modules and a utility core. Each module includes an administrative area with private and open office space and a logistics area with unit storage and a weapons vault. Include no columns or pilasters for most efficient furniture/storage layout.

3) ATFP Building Occupancy Level: The Company Headquarters must be considered "primary gathering" with respect to ATFP requirements.

B. PRIMARY SPACES:

1) Administration Area:

a) Private Offices: Provide the following private offices: the Company Commander (CO CDR), First Sergeant (1SG), and Executive Officer (XO).

b) Open Office: Provide open office space for 4 workstations at 6'x6' each. Include adequate circulation, file storage, and printer/copier/fax space.

c) Conference Room: Provide a conference room to accommodate a minimum of 10 PN with direct access to the open office area. Accommodate a ceiling mounted projector which is GFGI.

2) Logistics Area:

a) Weapons Vault: Provide a weapons vault for storage of arms, ammunition and explosives designed in accordance with AR 190-11, including intrusion detection system (IDS). Vault may be a modular type weapons vault that complies with the requirements of UL 608 Class "M" vault (forced entry delay time of 15 minutes). Modular vaults may be used if expected to be expanded/relocated. Provide vault entry door complete with day gate.

b) Company Storage: Provide company storage room with 8'-0" wide x 8'-0" high overhead motorized coiling/roll-up or sectional door and a 3'-0" wide door to the exterior. Provide NBC storage, Communications storage, and unit storage areas, defined with caging rather than constructed walls, with 3'-0" wide gates. Design floor slab in storage areas to accommodate fork lift use. The supply clerk must occupy the supply storage cage.

C. COMMON AND UTILITY AREAS:

1) Vestibule: Provide an enclosed transition space between the exterior and admin area. Include a clearance between doors to accommodate a 10'-0" long walk-off grate which is easily cleaned on a weekly basis.

2) Toilets: Provide Men's and Women's Toilets.

3) Corridor: Minimum corridor width must be 5'-0".

4) Janitor's Closet: Provide one janitor's closet in each company module.

5) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. Provide double exterior doors for the mechanical room, opening on the front side of the building, not toward the hardstand for Installation access during operations. Provide a single out swinging interior door with panic hardware for the electrical room when required by code. Provide a dedicated interior room for telecommunications equipment, minimum 1.1% of the building footprint.

6) Recycle Area: Provide space for five (5) recycling bins to meet LEED requirements. Utilize the recycle room as a "vestibule" to the electrical and comm. rooms.

7) Bootwash: Provide bootwashes at each exterior entry door of each company module.

3.2.1.VMS FUNCTIONAL SPACES – VEHICLE MAINTENANCE SHOP (VMS)

A. GENERAL:

1) Standard Design Drawings: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, kitchen equipment schedule, doors, and windows.

2) Function: The VMS includes two service bays, tool storage, and a separate warehouse with loading dock. Interior columns must not be used.

3) ATFP Building Occupancy Level: The Vehicle Maintenance Shop must be considered "inhabited" with respect to ATFP requirements.

B. PRIMARY SPACES:

1) Vehicle Maintenance Area:

a) Two Service Bays: Provide two 32'x64' drive through service bays with floors sloping to trench drains minimum 1/8-inch per foot. Design floor slab to accommodate the installations heaviest organizational vehicle(s) as indicated in Section 01 10 00, Para 6.

Provide a 24' wide x 20' high overhead motorized coiling/roll-up or sectional door at each end of both bays.

b) Maintenance Pit: Provide one 48-foot long x 3'-6" wide concrete maintenance pit in one service bay with stair access. Due to inside clearance for some vehicles, the maximum 3'-6" width is critical for the pit and curbing. Pit must have non-sparking, non-slip removable floor grating approximately 4'-4" below finish floor elevation, with concrete pit floor below sloping to sump pump. When not in use, pit must be provided with removable cover capable of supporting pedestrian traffic. Provide minimum 4-inch high steel angle curb surrounding pit opening. Pit cover panels' weight and size must be small enough to be removable by only two persons.

c) Weapons Cleaning & Maintenance Area: Provide an area open to the service bays to accommodate approximately 120 linear feet of work benches for use by vehicle maintenance personnel and also for weapons and equipment cleaning. Ceiling height must be a minimum of 10 feet high with adequate task lighting mounted below a metal liner ceiling. Provide workbenches similar to that shown, heavy duty steel, in work bench area as part of the FF&E Package which is not in this contract.

d) Office: Provide an office with windows into the service bays.

e) Tool Room/POL: Provide an open tool and parts storage area with a 6'-0" double door opening into the service bays and 3'-0" doors to the exterior to access each of two Standard Automotive Tool Set (SATS). Accommodate storage for minimal volumes of weapons cleaning supplies and petroleum/oil/lubricants (POL). Hazardous materials and battery storage, if needed, will be accommodated by other Installation facilities or unit mil-vans outside the building.

f) Standard Automotive Tool Set (SATS): The SATS is a unit-owned (i.e. GF/GI) containerized tool system with the dimensions of 8' x 20' x 8' high. Provide an exterior hardstand area adjacent to the Tool Room for two SATS containers. SATS are accessed from the end. Provide a wall mounted awning with minimum 14-foot clear height and 3'-0" overhang above tool room doors for weather protected entry into SATS containers. The technical manual for SATS is TM 9-4910-783-13&P.

2) Battalion Warehouse: Provide a warehouse for battalion supplies. Warehouse must have a minimum clear height of 14'-0". Provide a loading dock, see paragraph 3.3. Provide stairs from the loading dock to finished grade. Provide a roof for the loading dock. Provide a minimum 16'-0" wide x 12'-0" high and 10' wide x 12' high overhead motorized coiling/roll-up or sectional doors at loading dock. Provide one workspace within the warehouse near the loading dock exit door for a single workstation. Storage racks must be provided by others (provided by training units or Installation) and are not in the contract. Design floor slab to accommodate storage racks and fork lift use.

C. COMMON AND UTILITY AREAS:

1) Restrooms: Provide one men's and one women's restroom.

2) Corridor: Minimum corridor width must be 6'-0".

3) Janitor's Closet: Provide one janitor's closet.

4) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. Provide double exterior doors for the mechanical room. Provide a single out swinging interior door with panic hardware for the electrical room when required by code. Provide a dedicated interior room for telecommunications equipment, minimum 1.1% of the building footprint.

5) Recycle Area: Provide space for five (5) recycling bins to meet LEED requirements.

6) Bootwash: Provide bootwashes at each exterior service bay entry door.

3.2.1.BGHQ FUNCTIONAL SPACES – BRIGADE HEADQUARTERS (BGHQ)

A. GENERAL:

1) Standard Design Drawings: Refer to the Standard Design drawings for minimum net floor areas, space adjacencies, doors, and windows.

2) ATFP Building Occupancy Level: The Brigade Headquarters must be considered “primary gathering” with respect to ATFP requirements.

B. PRIMARY SPACES:

1) Administration Area:

a) Private Offices: Provide the following private offices: Commander, Executive Officer (XO), Sergeant Major (SGM), S1, S2, S3, S1/S4, S4, S6, and Brigade Surgeon.

b) Open Office: Provide open office space for 48 workstations at 6’x6’ each. Include adequate circulation, file storage, and printer/copier/fax space.

c) Conference Room: Provide a conference room to accommodate a minimum of 16 PN with direct access to the open office area.

d) EOC: Provide an emergency operations center (EOC) to seat minimum 16 PN. Include wall mounted video teleconferencing capability.

e) EOC/Conference Room Storage: Provide a storage room to serve the EOC and conference room.

f) Storage: Provide a storage room for office supplies. Provide a Medical Storage room for equipment.

g) Break Area: In the open office area near the conference room, provide a break area to accommodate a coffee maker (providing adequate height to operate), a small microwave, dish storage, and dish washing.

2) Chaplain: Provide a private office for the Chaplain.

C. COMMON AND UTILITY AREAS:

1) Lobby: Lobby must serve as a waiting area for the chaplain and admin area.

2) Vestibules: Provide enclosed transition spaces from the exterior to the lobby and to the open office area. Include a clearance between doors to accommodate a 10’-0” long walk-off grate which is easily cleaned on a weekly basis.

3) Corridors: Minimum corridor width must be 6’-0”.

4) Janitor’s Closet: Provide a janitors closet.

5) Mechanical, Electrical, and Telecommunications Rooms: Size and locate utility rooms to allow equipment removal and maintenance. Provide a single out swinging interior door with panic hardware for the electrical room when required by code. Provide a dedicated interior room for telecommunications equipment, minimum 1.1% of the building footprint.

6) SIPRNET Room: Provide a dedicated interior room for SIPRNET equipment, sized minimum 6’-6” x 8’-6’. Room must accommodate one SIPRNET rack and two persons at a briefing table to access the SIPRNET, therefore not requiring secure communications lines to run to individual offices.

7) Mail Distribution Room: This room is intended for mail distribution by the user, not direct postal delivery, therefore ATFP mail room requirements do not apply. Locate room on an outside wall.

8) Vending/Recycle Area: Include space for one full size soft drink and one full size snack vending machine, which will be provided by others. Provide space for five (5) recycling bins to meet LEED requirements.

9) Bootwash: Provide a bootwash at the main exterior entry.

3.3. SITE FUNCTIONAL REQUIREMENTS

A. PARKING:

1) PRIVATELY OWNED VEHICLE (POV) PARKING: Provide paved and striped parking for privately owned vehicles (POV) as shown in the provided site layout per the Installation's requirements. Site layout includes handicap accessible parking spaces near buildings required to be handicap accessible, 64 parking spaces for employees when the large dining facility is included, 42 parking spaces for employees when the small dining facility is included, and 20 parking spaces to accommodate occupants when the Officers' Quarters (Senior Leaders Quarters) is included.

2) TACTICAL VEHICLE HARDSTAND AND ACCESS: THE FOLLOWING APPLIES WHEN A TACTICAL VEHICLE HARDSTAND IS INCLUDED. Tactical vehicle hardstand and access drives must consist of rigid concrete pavement for mobilization and parking of organizational vehicles (wheeled, heavy, and tracked), commercial vehicles (contractor support), trailers, and generators. The hardstand includes building aprons, parking, and circulation on site. Rigid concrete pavement must accommodate the installation's heaviest organizational vehicle(s) as indicated in section 01 10 00, para 6.

a) Entrance Drives: Provide primary and secondary entrance drives with gates to connect tactical vehicle hardstand to roads and/or tank trails as shown in site plans. The primary and secondary entrance drives must be 30 feet wide.

b) Drainage: Provide positive surface drainage with a 1-percent minimum slope in the direction of drainage. Maximum pavement slope must be 2 percent.

c) Parking Layout: The layout of spaces or overall quantities of organizational vehicles is not dictated due to the transient training requirement of the ORTC. Organizational vehicle requirements must be coordinated with the installation (i.e. type and sizes).

d) Striping: Striping of the hardstand area for parking is not suggested to ensure flexibility.

e) Security Fencing: Provide minimum 6 foot high chain link fence with 3-strand barbed wire or as required by the Installation, around the perimeter of the vehicle hardstand. Include a horizontal sliding with keycard access operation or as required by the Installation.

B. ACCESS DRIVES AND LANES:

1) Services Drives: Provide service drives to each building for access to the mechanical room location. Restrict access as required for ATFP and the Installation. Service drives must be minimum 10 feet wide, designed as required in paragraph 5 of this section, "VEHICLE PAVEMENTS".

2) Emergency Vehicle/Fire Access Lanes: Provide fire access to each building as required by UFC 3-600-01 with access restricted as required for ATFP and the Installation. Required fire access lanes designed for emergency vehicle loads and widths must also be used as sidewalks. When barracks and officers' quarters are included, assure that access for fire trucks complies with fire protection requirements with access on three sides, including both long sides, of the Barracks and Officers' Quarters (Senior Leaders Quarters) within 33 feet or as determined by the Installation Fire Chief.

3) Drop-off Lanes: When barracks are included, provide bus drop-off locations near barracks.

C. DINING FACILITY LOADING DOCK: Completely separate POV (patron and staff) parking areas from loading dock and dumpster enclosure areas.

1) Loading Dock: Provide a 4'-0" high, minimum 15'-0" deep loading dock with 25,000 lb. dock leveler, dock bumpers, and truck restraints. Dock width must accommodate the ramp, stair, and number of truck dock locations shown on the floor plans. Align dock leveler with receiving vestibule door. Dock leveler must include an integral loading dock "back-up" light signal system. Loading dock platform must be sloped at a one percent pitch away from the building. Platform surface must have a broom finish. Provide a 4'-0" overhang beyond the edge of the dock. Provide a minimum clear height of 14'-6" from hardstand to loading dock overhang. Include automatic sprinkler protection for the loading dock.

2) Loading Dock Stair and Ramp: Provide a loading dock pedestrian stair and a loading dock ramp for wheeled carts & dollies. Coordinate loading dock pedestrian stair and loading dock pedestrian ramp with the location of the trash enclosure for easy access.

D. VMS – BATTALION WAREHOUSE: Provide a minimum 30'-0" long x 4'-0" high loading dock. Depending on existing site conditions and Installation preference, loading dock may be either raised (Warehouse finish floor must be 4'-0" above finish grade) or recessed. (Warehouse finish floor must equal to finish grade.)

3.4. SITE AND LANDSCAPE REQUIREMENTS

A. SITE STRUCTURES:

1) Dumpster Enclosures: Provide screened or enclosed dumpster areas, architecturally compatible with the buildings served and as required by the Installation. Enclosures must be sized to the required number of dumpsters and recycle containers. Locate dumpsters in accordance with ATFP standoff distance requirements.

2) Service Yards: Provide mechanical equipment enclosures to include chillers, transformers, PV arrays, etc., sized to allow clearance for maintenance and operation as required by the equipment manufacturer. Locate enclosures in accordance with ATFP standoff distance requirements. Where top protection is required per ATFP requirements, assure adequate height is provided for maintenance without removal of top protection. Design top screening for removal in easily handled sections. Enclosures must be appropriate for the equipment and in accordance with Installation requirements, including masonry, chain-link, or plank fence.

3) Utility Pads: Provide concrete exterior utility pads for any mechanical or utility device needed for the building operation. Include all necessary piping, wiring, or utility extensions for the device to function as designed. Locate mechanical equipment near existing or proposed sidewalks, access drives, or parking areas to eliminate the need to construct additional accesses.

4) Bollards: Provide 5-foot high, 6-inch diameter concrete-filled, schedule 80 galvanized steel pipe bollards, painted safety yellow at overhead coiling, roll-up, or sectional door frames and adjacent to the service yards and building corners where frequent nearby vehicle movement increases the risk of damage by vehicle impact. Provide bollards 5 feet from the edge of electrical and mechanical equipment not already protected by enclosures. Minimum required bollards for facility types are shown in the floor plans.

B. LANDSCAPING/HARDSCAPING:

1) Pedestrian Sidewalks: Provide minimum 6-foot wide sidewalks connecting each building entrance with parking areas, other buildings in the complex, and as needed for fire exiting and site circulation.

2) Landscaping: Minimal landscaping must be provided as required by the Installation. All other areas must be seeded in lawn grasses acceptable to the climate and Installation. Landscape with materials indigenous to the area, eliminating requirements for irrigation and minimizing maintenance. Reference Installation planting lists.

3.4.SMDF SITE AND LANDSCAPE REQUIREMENTS – SMALL DINING FACILITY (SMDF)

A. DUMPSTER ENCLOSURE: Size enclosure to accommodate at least four front loaded dumpsters, two for trash, one for recyclables, and one for cardboard. Provide one hose bib at each enclosure. Entire enclosure area and access must be concrete pavement having adequate drainage.

B. GREASE INTERCEPTOR: Provide a grease interceptor to collect and contain grease from the waste drain line flows emanating from the kitchen food preparation and dishwashing and pot/can wash areas. The grease interceptor must be located outside of the facility in a location that is accessible to a vacuum grease collection truck. The grease interceptor tank must be cathodically protected. Size the grease interceptor for 2,000 gallons, except where local requirements dictate a larger size.

C. SOLIDS INTERCEPTOR: Provide a solids interceptor to collect and contain solids from the waste drain line flows emanating from the kitchen food preparation and dishwashing and pot/can wash areas. The solids interceptor must be located outside of the facility in a location that is accessible to a vacuum solids collection truck and must be in-line before the grease interceptor. The solids interceptor tank must be cathodically protected. Size the solids interceptor at 100 gallons, except where local requirements dictate a larger size.

3.4.LGDF SITE AND LANDSCAPE REQUIREMENTS – LARGE DINING FACILITY (LGDF)

A. DUMPSTER ENCLOSURE: Size enclosure to accommodate at least four front loaded dumpsters, two for trash, one for recyclables, and one for cardboard. Provide one hose bib at each enclosure. Entire enclosure area and access must be concrete pavement having adequate drainage.

B. GREASE INTERCEPTOR: Provide a grease interceptor to collect and contain grease from the waste drain line flows emanating from the kitchen food preparation and dishwashing and pot/can wash areas. The grease interceptor must be located outside of the facility in a location that is accessible to a vacuum grease collection truck. The grease interceptor tank must be cathodically protected. Size the grease interceptor for 3,000 gallons, except where local requirements dictate a larger size.

C. SOLIDS INTERCEPTOR: Provide a solids interceptor to collect and contain solids from the waste drain line flows emanating from the kitchen food preparation and dishwashing and pot/can wash areas. The solids interceptor must be located outside of the facility in a location that is accessible to a vacuum solids collection truck and must be in-line before the grease interceptor. The solids interceptor tank must be cathodically protected. Size the solids interceptor at 250 gallons, except where local requirements dictate a larger size.

3.4.VMS SITE AND LANDSCAPE REQUIREMENTS – VEHICLE MAINTENANCE SHOP (VMS)

A. BOLLARDS: Provide 12-inch diameter bollards rather than 6-inch diameter bollards to protect against the larger size vehicles accommodated by the VMS.

3.5. ARCHITECTURAL REQUIREMENTS

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

B. ROOF ACCESS: Provide lockable roof access hatches at the top of stairs as required by UFC 3-600-01 and Code for buildings over three stories. Include ladder, top ladder extension, and lockable ladder guard for each roof access.

C. EXTERIOR OPENINGS:

1) Storefronts (Main Entrances): Provide aluminum storefront doors and frames with Architectural Class 1 anodized finish, fully glazed with insulating glass units, having medium or wide stiles for entry into lobbies or corridors. Framing systems must have thermal-break design. Storefront systems must comply with wind load requirements of applicable codes and criteria including UFC 4-010-01.

2) Windows: The number of windows shown on the drawings illustrate the minimum number of windows required with the intent to include additional windows to balance building elevation aesthetics or achieve more day lighting or views. Provide insulated glass units in high efficiency window systems with thermally broken frames complying with applicable codes and criteria including UFC 4-010-01. Window sills must be designed for drainage and discouraging bird nesting. Where operable windows are used, aluminum framed insect screens must be provided. Window operability must be determined by the Installation.

3) Exterior Doors and Frames: All exterior doors must be minimum 3'-0" wide, including those used in double door openings.

a) Exterior Insulated Hollow Metal Doors & Frames: Provide insulated hollow metal exterior doors for entry to all spaces other than corridors or lobbies. Doors must be minimum Level 3, physical performance Level A, Model 2 flush, seamless. Frames must be Level 4, 12-gauge, with continuously welded mitered corners and seamless face joints. Doors and frames must be A60 galvannealed, in compliance with ASTM A653 and must be factory primed for field paint.

b) Exterior Overhead Doors: Overhead doors, where required, must be insulated, motorized, coiling/roll-up or sectional doors with factory finish.

4) Hardware:

a) Door Hardware: All door hardware must be Grade 1 for heavy duty use. Keying must be coordinated with the Installation. Cores must have not less than seven pins; cylinders must have key-removable type cores.

b) Electronic Access System: When the Installation requires electronic access, all main entry doors must be included.

D. INTERIOR OPENINGS:

1) Interior Doors: All interior doors must be minimum 3'-0" wide, including those used in double door openings.

a) Interior Wood Doors: All interior doors for all facility types must be solid core wood unless otherwise indicated. Provide flush solid core wood doors conforming to WDMA I.S.-1A. Stile edges must be non-finger jointed hardwood compatible with face veneer. Provide Architectural Woodwork Institute (AWI) Grade A hardwood face veneer for transparent finished doors.

b) Interior Insulated Hollow Metal Doors: When indicated for use, hollow metal doors for interior use must be factory primed and comply with ANSI A250.8/SDI 100. Doors must be minimum Level 2, physical performance Level B, Model 2, flush, seamless.

c) Interior Hollow Metal Frames: All interior door frames must be hollow metal unless otherwise indicated. Interior hollow metal frames must be factory primed and comply with ANSI A250.8/SDI 100. Frames must be minimum Level 2, 16 gauge, with continuously welded mitered corners and seamless face joints.

E. ACOUSTICAL REQUIREMENTS:

1) Sound Transmission Reduction: Provide STC rated wall and door assemblies between spaces with minimums as shown on the drawings.

2) Room Noise Criteria and Testing: Building construction and installed equipment must accommodate room noise criteria limits.

a) Room Criteria (RC): Occupancy classification establishes acceptable background sound in rooms over the frequency range of 16 Hz to 4000 Hz, particularly measuring rumbling, rattling, buzzing, hissing, and humming from building mechanical and electrical systems. Rooms must not exceed the RC indicated below. All RC ratings must be neutral (N). Designers of Record must determine adequate construction requirements to achieve the following RC limits:

(1) Open Offices: RC 35 (N)
(2) Private Offices: RC 30 (N)
(3) Conference Rooms: RC 25 (N)
(4) Sleeping Rooms/Bays: RC 25 (N)
(5) Common Rooms: RC 25 (N)

b) RC Testing: Test all rooms with all building systems operating, including air compressors. Measure the sound pressure level in dB referenced to 20 micro Pascals. Report the results of the tests by plotting the sound pressure level in each octave band from 32-4000 Hertz on Room Criterion Curve sheets published by ASHRAE. Provide an individual plot for each room and a narrative discussion explaining the test results. Rooms exceeding the above RC must have either systems or sound attenuation altered until the RC rating is met.

3.5.BKS2 ARCHITECTURAL REQUIREMENTS – TWO STORY BARRACKS (BKS2)

A. WINDOWS: Each window must be as large as possible, minimum of 2'-0" high x 2'-0" wide unless otherwise indicated. Recommend use of translucent glazing for open bays.

B. MINIMUM FINISH REQUIREMENTS: Where concrete masonry units (CMU) are required as the room finish in the drawings on the finish schedules alternative high impact wall finishes may be used, including high impact gypsum board and high impact plaster coatings. Impact resistance must be as approved by the installation.

3.5.BKS4 ARCHITECTURAL REQUIREMENTS – FOUR STORY BARRACKS (BKS4)

A. WINDOWS: Each window must be as large as possible, minimum of 2'-0" high x 2'-0" wide unless otherwise indicated. Recommend use of translucent glazing for open bays.

B. MINIMUM FINISH REQUIREMENTS: Where concrete masonry units are required as the room finish in the drawings on the finish schedules alternative high impact wall finishes may be used, including high impact gypsum board and high impact plaster coatings. Impact resistance must be as approved by the Installation.

3.5.OQ ARCHITECTURAL REQUIREMENTS – OFFICERS' QUARTERS (OQ)

A. MINIMUM FINISH REQUIREMENTS: Where concrete masonry units are required as the room finish in the drawings on the finish schedules alternative high impact wall finishes may be used, including high impact gypsum board and high impact plaster coatings. Impact resistance must be as approved by the Installation.

3.5.SMDF ARCHITECTURAL REQUIREMENTS – SMALL DINING FACILITY (SMDF)

A. ROOF: The roof must be designed for roof mounted equipment with mansards or parapets for screening. Provide lockable roof access hatch in the mechanical room, minimum of 16 square feet clear open area with no dimension smaller than 4'-0". Provide a ship-type ladder to access the roof hatch.

B. EXTERIOR DOORS: A solid aluminum threshold must be provided at the receiving vestibule door leading to the loading dock. Emergency "exit only" doors must be provided with a local audible alarm.

C. INTERIOR DOORS: The doors between the Kitchen and the Servery, between the Kitchen and Receiving Vestibule, and into the Dishwashing area, must be lightweight, high impact resistant, double-swing doors with protective door plates, bumpers, pivots, and vision panels.

D. CEILINGS: Finished ceiling heights must not exceed 14 feet except in areas where clerestories or other daylighting is incorporated to enhance sustainable design. Regardless of the ceiling features provided, no building structure or materials must be exposed to comply with cleanliness requirements.

3.5.LGDF ARCHITECTURAL REQUIREMENTS – LARGE DINING FACILITY (LGDF)

A ROOF: The roof must be designed for roof mounted equipment with mansards or parapets for screening. Provide lockable roof access hatch in the mechanical room, minimum of 16 square feet clear open area with no dimension smaller than 4'-0". Provide a ship-type ladder to access the roof hatch.

A. EXTERIOR DOORS: A solid aluminum threshold must be provided at the receiving vestibule door leading to the loading dock. Emergency "exit only" doors must be provided with a local audible alarm.

B. INTERIOR DOORS: The doors between the Kitchen and the Servery, between the Kitchen and Receiving Vestibule, and into the Dishwashing area, must be lightweight, high impact resistant, double-swing doors with protective door plates, bumpers, pivots, and vision panels.

C. CEILINGS: Finished ceiling heights must not exceed 14 feet except in areas where clerestories or other daylighting is incorporated to enhance sustainable design. Regardless of the ceiling features provided, no building structure or materials must be exposed in order to comply with cleanliness requirements.

3.5.1. FINISHES AND INTERIOR SPECIALTIES

A. GENERAL: Minimum interior finishes must be as indicated in the finish schedules for each facility type on the drawings. Higher grade finishes may be proposed, however, due to durability issues with these transient facilities, may not be acceptable.

B. INTERIOR FINISHES:

1) Walls: All gypsum board must achieve a score of 10, the highest level of performance for mold resistance under the ASTM D 3273 test method. Exposed gypsum board must receive a minimum level 5 finish in accordance with GA 214.

2) Countertops/Vanities: Provide solid polymer countertops/vanities with integral sinks where shown and backsplashes. Include 4-inch solid polymer skirts for vanities and waterfall edges for countertops.

3) Window Stools: Provide solid polymer window sills.

C. INTERIOR SPECIALTIES:

1) Signage & Directories: Provide a comprehensive signage package for each facility including changeable directories, way-finding signage, and room signage with room numbers and changeable room names.

2) Restroom, Bath, and Shower Accessories: Provide commercial grade, heavy duty toilet accessories with metal finish. (Type 304 stainless steel when available.) Coordinate for toilet accessories that may be provided by an Installation's maintenance contract.

3) Wall Protection:

a) Chair Rail: Provide chair rails in areas prone to chair height impacts including conference rooms, waiting areas, and common use areas.

B) Corner Guards: Provide surface mounted, high impact resistant, integral color, snap-on type resilient corner guards, extending from floor to ceiling for wall and column outside corners in high traffic areas such as corridors, waiting areas, lobbies, conference and common use rooms. Factory fabricated end closure caps must be furnished for top and bottom of corner guards.

4) Janitor's Closet: Provide floor mop sink where shown in each facility with 4'-0" high stainless steel, tile, or solid polymer backsplash, service faucet with hose and bracket, mop rack for three mops, minimum 6'-0" of linear stainless steel shelving capable of supporting minimum 30 lb. per linear feet, and floor drain.

5) Clothes Closets: Provide a wire shelf the width of the closet with hanger bar capable of supporting minimum 30 lb. per linear foot in each clothes closet in senior leaders' quarters.

6) Restrooms: Provide vanity light fixtures above glass mirror for length of the vanity in each restroom. Provide a solid polymer countertop with integrally molded lavatories, minimum 16"x12", and 6" high coved back and side splash. The number of fixtures shown in the facility type plans must be considered the minimum requirement.

a) Men's Restrooms: Urinals must be wall hung. Provide floor mounted, 3/4-inch solid polymer toilet partitions and urinal screens, toilet tissue dispensers, liquid soap dispensers, paper towel dispensers, coat hooks, and waste receptacles.

b) Women's Restrooms: Provide floor mounted, 3/4-inch solid polymer toilet partitions, toilet tissue dispensers, napkin disposals, liquid soap dispensers, paper towel dispensers, coat hooks, and waste receptacles.

3.5.1.BNHQ FINISHES AND INTERIOR SPECIALTIES – BATTALION HEADQUARTERS (BNHQ)

A. CONFERENCE ROOM: Provide a 4'-0" high x 8'-0" wide marker board and recessed projection screen.

B. BREAK AREA: In the open office area near the conference room, provide a minimum 6'-0" long solid polymer countertop with 19"x19" stainless steel sink with gooseneck faucet and 6" high coved back and side splash. Include base cabinets with drawers and adjustable shelves.

3.5.1.BKS2 FINISHES AND INTERIOR SPECIALTIES – TWO STORY BARRACKS (BKS2)

A. SHOWERS: Provide a curtain and rod at each shower and at each dressing area. Provide solid polymer shower partitions. Include towel pins, clothes hooks, and soap and shampoo shelves in each shower/dressing area.

B. SENIOR LEADERS' QUARTERS BATH AND SINK AREA: Provide a minimum 3'-0" wide solid polymer countertop with integral sink in each SLQ with base cabinet having hinged door(s). Provide one, minimum 3'-0" x 3'-0" fiberglass shower unit in each bathroom with curtain, curtain rod, and integral soap shelves. Towel pins and toilet tissue dispensers must be provided in each bath and sink area.

C. LAUNDRY ROOMS: Laundry rooms must include a custom solid polymer clothes folding table with clothes rod above.

3.5.1.BKS4 FINISHES AND INTERIOR SPECIALTIES – FOUR STORY BARRACKS (BKS4)

A. SHOWERS: Provide a curtain and rod at each shower and at each dressing area. Provide solid polymer shower partitions. Include towel pins, clothes hooks, and soap and shampoo shelves in each shower/dressing area.

B. SENIOR LEADERS' QUARTERS BATH AND SINK AREA: Provide a minimum 3'-0" wide solid polymer countertop with integral sink in each SLQ with base cabinet having hinged door(s). Provide one, minimum 3'-0" x 3'-0" fiberglass shower unit in each bathroom with curtain, curtain rod, and integral soap shelves. Towel pins and toilet tissue dispensers must be provided in each bath and sink area.

C. LAUNDRY ROOMS: Provide a custom solid polymer clothes folding table with clothes rod above.

3.5.1.OQ FINISHES AND INTERIOR SPECIALTIES – OFFICERS' QUARTERS (OQ)

A. SENIOR LEADERS' QUARTERS BATH AND SINK AREA: Provide a minimum 3'-0" wide solid polymer countertop with integral sink in each SLQ with base cabinet having hinged door(s). Provide one, minimum 3'-0" x 3'-0" fiberglass shower unit in each bathroom with curtain, curtain rod, and integral soap shelves. Towel pins and toilet tissue dispensers must be provided in each bath and sink area.

B. LAUNDRY ROOMS: Provide a custom solid polymer clothes folding table with clothes rod above.

C. STORAGE ROOMS: Provide full built-in adjustable shelving with capability of supporting minimum 30 lb. per linear foot.

D. COMMON AREA, SECOND FLOOR: Provide a kitchenette, 8'-0" minimum length with base and wall cabinets and double stainless steel kitchen sink and gooseneck faucet.

3.5.1.SMDF FINISHES AND INTERIOR SPECIALTIES – SMALL DINING FACILITY (SMDF)

A. INTERIOR FINISHES:

1) Casework: Provide custom-fabricated rectangular-shaped casework module to house each point-of-sale or headcount station including power and data receptacles at each station.

B. INTERIOR SPECIALTIES:

1) Signage: Signage must clearly define the major areas, identify different service areas and types of food served, identify food items over the kiosks, provide directional information and traffic flow where appropriate, and compliment the interior design scheme. Illumination of service area identification signage is not required, but is acceptable to enhance visibility. Ensure that general space lighting does not conflict or detract from the lighted signage design. Provide lighted, weather resistant daily menu display case, minimum of 36” x 72”, outside the entry doors. Provide two bulletin boards, one mounted inside administrative office and one outside administrative office door.

2) Wall Protection: 72-inch high corner guards are required for all outside corners of walls and columns throughout the facility except in toilets. Corner guards in kitchen, food service lines, dishwashing, and other utility/service areas must be stainless steel. Corner guards in dining areas and other patron/public spaces must be architectural type as part of the SID. Include chair rails and impact-resistant wainscots to protect wall surfaces in dining areas. Provide bumpers or other protective features to prevent wall damage from mobile racks in the Dry Storage.

3) Janitor Closets: Provide floor mounted stainless steel mop sink 33" x 25" x 10" high, service faucet, mop hangar, hose, and bracket. Provide one 18" deep x 60" long x 48” high four tier, heavy duty shelving unit for storage of cleaning supplies.

4) Can Wash: Provide can drying racks, mop racks, and broom storage racks with locations out of range of spray from cleaning equipment.

5) Staff Locker Room: Provide factory finished 12" wide x 15" deep x 72" tall, ventilated, four-tier (18" high each) lockers. Lockers must be mounted on locker manufacturer's base and must have a sloped top.

3.5.1.LGDF FINISHES AND INTERIOR SPECIALTIES – LARGE DINING FACILITY (LGDF)

C. INTERIOR FINISHES:

1) Casework: Provide custom-fabricated rectangular-shaped casework module to house each point-of-sale or headcount station including power and data receptacles at each station.

D. INTERIOR SPECIALTIES:

1) Signage: Signage must clearly define the major areas, identify different service areas and types of food served, identify food items over the kiosks, provide directional information and traffic flow where appropriate, and compliment the interior design scheme. Illumination of service area identification signage is not required, but is acceptable to enhance visibility. Ensure that general space lighting does not conflict or detract from the lighted signage design. Provide lighted, weather resistant daily menu display case, minimum of 36” x 72”, outside the entry doors. Provide two bulletin boards, one mounted inside administrative office and one outside administrative office door.

2) Wall Protection: 72-inch high corner guards are required for all outside corners of walls and columns throughout the facility except in toilets. Corner guards in kitchen, food service lines, dishwashing, and other utility/service areas must be stainless steel. Corner guards in dining areas and other patron/public spaces must be architectural type as part of the SID. Include chair rails and impact-resistant wainscots to protect wall surfaces in dining areas. Provide bumpers or other protective features to prevent wall damage from mobile racks in the Dry Storage.

3) Janitor Closets: Provide floor mounted stainless steel mop sink 33" x 25" x 10" high, service faucet, mop hangar, hose, and bracket. Provide one 18" deep x 60" long x 48" high four tier, heavy duty shelving unit for storage of cleaning supplies.

4) Can Wash: Provide can drying racks, mop racks, and broom storage racks with locations out of range of spray from cleaning equipment.

5) Staff Locker Room: Provide factory finished 12" wide x 15" deep x 72" tall, ventilated, four-tier (18" high each) lockers. Lockers must be mounted on locker manufacturer's base and must have a sloped top.

3.5.1.COHQ FINISHES AND INTERIOR SPECIALTIES – COMPANY HEADQUARTERS (COHQ)

A. CONFERENCE ROOMS: Provide a 4'-0" high x 8'0" wide marker board and recessed projection screen in each conference room.

3.5.1.BGHQ FINISHES AND INTERIOR SPECIALTIES – BRIGADE HEADQUARTERS (BGHQ)

A. CONFERENCE ROOM: Provide a 4'-0" high x 8'-0" wide marker board and recessed projection screen.

B. EOC: Provide a 4'-0" high x 8'-0" wide marker board and recessed projection screen.

C. BREAK AREA: In the open office area near the conference room, provide a minimum 6'-0" long solid polymer countertop with 19"x19" stainless steel sink with gooseneck faucet and 6" high coved back and side splash. Include base cabinets with drawers and adjustable shelves.

3.6. STRUCTURAL REQUIREMENTS

A. GENERAL: System design and construction must meet all applicable criteria identified herein and in Section 01 10 00, paragraphs 4.0 and 5.0.

B. BUILDING CATEGORY: (based on 2009 criteria per UFC 1-200-01)

Barracks:	II
Officers Quarters:	II
Dining Facility:	III
Company Headquarters:	II
Vehicle Maintenance Shop:	II
Brigade Headquarters:	II

C. SEISMIC IMPORTANCE FACTOR (IE): (based on 2009 criteria per UFC 1-200-01)

Barracks:	1.0
Officers Quarters:	1.0
Dining Facility:	1.25
Company Headquarters:	1.0
Vehicle Maintenance Shop:	1.0
Brigade Headquarters:	1.0

3.7. SEE PARAGRAPH 6.7 THERMAL PERFORMANCE – NOT USED

3.8. PLUMBING REQUIREMENTS

A. GENERAL: System design and construction must meet all applicable criteria identified herein and in Section 01 10 00, paragraphs 4.0 and 5.0.

B. DOMESTIC WATER:

1) Water Service: The domestic water service to the building must enter the building in the mechanical room. The water service must be provided with a reduced pressure backflow preventer to isolate each building from the base water system. A main shut-off valve must be provided inside each building; coordinate location with the Installation.

2) Water Distribution: A horizontal water distribution system must serve all the buildings' fixtures and equipment, with isolation valves at each branch to common areas serving two or more fixtures, and at each wall hydrant or equipment connection. Water connections for mechanical equipment systems make-up will be isolated from the domestic water system with a reduced pressure backflow preventer.

C. SANITARY SYSTEM: A sanitary drain, waste and vent system will extend from the connection to the site utility system to all fixtures and equipment requiring service. Drainage and vent stacks must extend vertically and be vented through the roof. Trap primers must be provided for drains susceptible to loss of water seal by evaporation.

D. FLOOR DRAINS: Floor drains must be provided in mechanical rooms, janitor rooms, vending machine areas, restrooms, laundries, weapons vaults, and for equipment requiring drainage. All floor drains must be automatically primed by single trap primers.

E. BOOTWASH: Bootwashes must accommodate boot washing, drainage, and grit/dirt removal. Each boot wash facility must include minimum two freeze-proof hose bibs, removable bar grating for sediment clean-out, mounted boot brushes, and drying rack/handrail. Coordinate bootwash drainage requirements with the Installation.

F. WALL HYDRANTS: Wall hydrants must be provided at a maximum spacing interval of 150 feet around the perimeter of the building. Wall hydrants must be box type, freeze-proof, with integral vacuum breaker/backflow preventer.

G. WATER HAMMER ARRESTORS: Water hammer arresters will be provided for shock suppression. The placement of water hammer arresters must be as referenced in the IPC.

H. GAS DISTRIBUTION: The design and installation of interior natural gas distribution systems must be in accordance with manufacturer's recommendations and the applicable sections of ASME B31.8 and NFPA 54.

3.8.BNHQ PLUMBING REQUIREMENTS – BATTALION HEADQUARTERS (BNHQ)

A. BREAK AREA: Within the counter, provide one minimum 19"x19" stainless steel sink with gooseneck faucet.

B. CORRIDOR: Provide one standard and one accessible electric water coolers.

3.6.BKS2 PLUMBING REQUIREMENTS – TWO STORY BARRACKS (BKS2)

A. LAUNDRY ROOMS: Each laundry must include one solid polymer utility sink with gooseneck faucet. Water and sanitary lines must be provided to accommodate the washers and utility sink.

B. LATRINE/SHOWERS: In each shower, provide shower heads and drains. Include a drain in each dressing area as well as in the shower room. Locate shower heads such that spray is directed at opposite wall and not shower curtain.

C. SENIOR LEADERS' QUARTERS BATH AND SINK AREAS: Locate shower heads such that spray is directed at opposite wall and not shower curtain.

D. CORRIDOR: Provide one standard electric water coolers on each floor

3.8.BKS4 PLUMBING REQUIREMENTS – FOUR STORY BARRACKS (BKS4)

A. LAUNDRY ROOMS: Each laundry must include one solid polymer utility sink with gooseneck faucet and a floor drain. Water and sanitary lines must be provided to accommodate the washers and utility sink.

B. LATRINE/SHOWERS: In each shower, provide shower heads and drains. Include a drain in each dressing area as well as in the shower room. Locate shower heads such that spray is directed at opposite wall and not shower curtain.

C. SENIOR LEADER'S QUARTERS BATH AND SINK AREAS: Locate shower heads such that spray is directed at opposite wall and not shower curtain.

D. CORRIDOR: Provide two standard electric water coolers on each floor.

3.8.OQ PLUMBING REQUIREMENTS – OFFICERS' QUARTERS (OQ)

A. LOBBY: Provide one standard electric water cooler in the lobby on each floor.

B. LAUNDRY: Each laundry must include one solid polymer utility sink with gooseneck faucet and a floor drain. Water and sanitary lines must be provided to accommodate the washers and utility sink.

C. LIVING/SLEEPING ROOM BATH: Locate shower heads such that spray is directed at opposite wall and not shower curtain.

D. VENDING AREA: Provide adequate water supply for the ice machine.

E. COMMON AREA: Within the counter, provide stainless steel double basin sink with gooseneck faucet. Provide adequate water supply for refrigerator ice maker.

3.8.SMDF PLUMBING REQUIREMENTS – SMALL DINING FACILITY (SMDF)

A. WATER SOFTENER: Perform a water quality analysis to determine the need for water softening equipment, piping requirements, equipment filtering requirements, etc. Where the water quality analysis determines the need for a water softener system, a whole building water softener system must be provided.

B. WATER FILTERING: Individual equipment items may also require water filtering per manufacturer's recommendations. Provide water filters for the water to be distributed to the beverage stations.

C. PIPING CONCEALMENT: In accordance with TB Med 530, all piping must be concealed to the greatest extent possible. Where metallic piping cannot be concealed provide stainless steel or chrome-plated. Chrome plating must be in accordance with ASTM B 650.

D. HOT WATER TEMPERATURE: In the kitchen and dishwashing areas, hot water must be designed to provide 140 degree Fahrenheit at the equipment. General purpose, hand washing

sinks, and lavatories must be provided with 110 degree Fahrenheit hot water. Provide tempering of the hot water drains in accordance with 4.0 APPLICABLE CRITERIA.

E. SINKS: All sinks must be UL and NSF approved/certified/listed. Hand wash sinks in food service areas must have foot operated faucets.

F. FLOOR DRAINS: Floor drains are required in the toilets, janitor's closets, kitchen, can wash, dishwash, serving lines, self-service, and at each hand wash sink. Slope floors to drain. Floor drains must be provided with trap primers. Dishwash room drains must be directed to the solids and grease interceptors.

G. HOT WATER DRAINS: Provide tempering of the hot water drains in accordance with 4.0 APPLICABLE CRITERIA.

H. WASH STATIONS: Provide a centrally controlled low-pressure washing system with remote wall-mounted workstations in the Kitchen, Can Wash, Dishwashing Area, and Receiving Platform. Required accessories include water broom attachment, hose reel, spray nozzle and freeze-proof valves for exterior application. Install wall mounted equipment in locations away from possible damage from mobile carts.

I. HOSE BIBS: Provide a hose bib inside can wash and mechanical room.

3.8.LGDF PLUMBING REQUIREMENTS – LARGE DINING FACILITY (LGDF)

A. WATER SOFTENER: Perform a water quality analysis to determine the need for water softening equipment, piping requirements, equipment filtering requirements, etc. Where the water quality analysis determines the need for a water softener system, a whole building water softener system must be provided.

B. WATER FILTERING: Individual equipment items may also require water filtering per manufacturer's recommendations. Provide water filters for the water to be distributed to the beverage stations.

C. PIPING CONCEALMENT: In accordance with TB Med 530, all piping must be concealed to the greatest extent possible. Where metallic piping cannot be concealed provide stainless steel or chrome-plated. Chrome plating must be in accordance with ASTM B 650.

D. HOT WATER TEMPERATURE: In the kitchen and dishwashing areas, hot water must be designed to provide 140 degree Fahrenheit at the equipment. General purpose, hand washing sinks, and lavatories must be provided with 110 degree Fahrenheit hot water. Provide tempering of the hot water drains in accordance with 4.0 APPLICABLE CRITERIA.

E. SINKS: All sinks must be UL and NSF approved/certified/listed. Hand wash sinks in food service areas must have foot operated faucets.

F. FLOOR DRAINS: Floor drains are required in the toilets, janitor's closets, kitchen, can wash, dishwash, serving lines, self-service, and at each hand wash sink. Slope floors to drain. Floor drains must be provided with trap primers. Dishwash room drains must be directed to the solids and grease interceptors.

G. HOT WATER DRAINS: Provide tempering of the hot water drains in accordance with 4.0 APPLICABLE CRITERIA.

H. WASH STATIONS: Provide a centrally controlled low-pressure washing system with remote wall-mounted workstations in the Kitchen, Can Wash, Dishwashing Area, and Receiving Platform.

Required accessories include water broom attachment, hose reel, spray nozzle and freeze-proof valves for exterior application. Install wall mounted equipment in locations away from possible damage from mobile carts.

I. HOSE BIBS: Provide a hose bib inside can wash and mechanical room.

3.7.COHQ PLUMBING REQUIREMENTS – COMPANY HEADQUARTERS (COHQ)

A. CORRIDOR: Provide standard electric water cooler in each company module.

3.8.VMS PLUMBING REQUIREMENTS – VEHICLE MAINTENANCE SHOP (VMS)

A. DRAINS, INTERCEPTOR, SEPARATORS & CLEANOUTS

1) Service Bays: Provide trench drains with oil/water separator at interior of overhead motorized coiling/roll-up or sectional service bay doors for removal of oil, lubricants, floatables, and grit from contaminated water sources. Oil/water separators must be designed in accordance with local codes and standard industry practice for the specific waste stream to be treated. Minimize maintenance requirements and locate oil/water separators to minimize pipe runs, provide vehicular access, and avoid circulation areas.

B. PLUMBING FIXTURES:

1) Service Bays:

a) Hose Bibs: Provide hose bibs between overhead motorized coiling/roll-up or sectional service bay doors.

b) Eyewash: Provide eyewash points. Installed emergency eyewash, hand held drench hose and shower station at each circulation bay that is adjacent to a core area and provide additional emergency eye wash, hand held drench hose and shower stations in other bays as required per OSHA standard 1910.151(c) and ANSI Z358.1. Locate emergency wash stations in accordance with OSHA standard 1910.151(c) and ANSI Z358.1. Per OSHA 1910.151(c) emergency eyewash/shower units should be located such that a worker can reach one in 10 seconds. ANSI Z358.1 gives a guideline of 55 feet to meet this requirement.

c) Water Cooler: Provide standard electric water cooler near restrooms.

d) Sump Pump: Provide an explosion proof sump pump in the maintenance pit.

C. COMPRESSED AIR SYSTEMS:

1) Service Bays: Provide a compressed air distribution system, including the air compressor to serve the two vehicle maintenance bays with a minimum of two compressed air outlets in each bay. Also include an outlet in two places in the maintenance pit. Each outlet must provide 4 cfm and a hose reel must be provided at each compressed air outlet. Compressed air must be provided at a maximum 120 psi and a minimum of 90 psi at the outlets. Assume that 66% of all air outlets are in use at the same time.

2) Weapons Cleaning & Maintenance Area: Provide a minimum of 4 compressed air outlets, spaced along the back wall above the workbenches.

3.8.BGHQ PLUMBING REQUIREMENTS – BRIGADE HEADQUARTERS (BGHQ)

A. BREAK AREA: Within the counter, provide one minimum 19”x19” stainless steel sink with gooseneck faucet.

B. CORRIDOR: Provide standard and accessible electric water coolers.

3.9. COMMUNICATIONS AND SECURITY SYSTEMS

A. GENERAL: System design and construction must meet all applicable criteria identified herein and in Section 01 10 00, paragraphs 4.0 and 5.0.

B. TELECOMMUNICATION SYSTEMS:

1) Connectivity:

a) Utility Rooms: Provide each utility room with at least one wall phone outlet located near the entrance door including mechanical, electrical, and telecommunications rooms.

b) Offices: Provide each office and each workstation with at least one wall phone outlet and one data point.

c) Conference Rooms: Provide each conference room with at least one wall phone outlet and one data point.

C. AUDIO/VISUAL SYSTEMS & INFRASTRUCTURE:

1) Projectors: Provide power where ceiling mounted projectors will be installed. Projectors are GFGI by the Installation, not included in the FF&E Package.

2) PA Systems: Provide power and conduit with pull wire where public address (PA) systems will be installed. PA systems are GFGI by the Installation, not included in the FF&E Package.

3.9.BNHQ COMMUNICATIONS AND SECURITY SYSTEMS – BATTALION HEADQUARTERS (BNHQ)

A. AUDIO/VISUAL SYSTEMS & INFRASTRUCTURE:

1) Video Teleconferencing (VTC): Coordinate specific wiring infrastructure requirements with the Installation. Provide a conduit with pull wires or cable tray system from the conference room to the telecommunications room to facilitate video teleconferencing.

3.9.BKS2 COMMUNICATIONS AND SECURITY SYSTEMS – TWO STORY BARRACKS (BKS2)

A. TELECOMMUNICATION SYSTEMS:

1) Connectivity:

a) Open Bays: Provide wireless data access with a centrally located wireless router / switch hook-up (connector point), on each barracks floor capable of serving minimum 100 users. No voice outlets or CATV outlets are required in the open sleeping bays.

b) Company Storage: Provide data/internet ports along walls and at television.

2) CATV:

a) Senior Leader Quarters (SLQ): Provide each SLQ sleeping room with one CATV outlet.

b) Company Storage: Provide one CATV outlet for the television.

3.9.BKS4 COMMUNICATIONS AND SECURITY SYSTEMS – FOUR STORY BARRACKS (BKS4)

A. TELECOMMUNICATION SYSTEMS:

1) Connectivity:

a) Open Bays: Provide wireless data access with a centrally located wireless router / switch hook-up (connector point), on each barracks floor capable of serving minimum 100 users. No voice outlets or CATV outlets are required in the open sleeping bays.

b) Company Storage: Provide data/internet ports along walls and at television.

2) CATV:

a) Senior Leader Quarters (SLQ): Provide each SLQ sleeping room with one CATV outlet.

b) Company Storage: Provide one CATV outlet for the television.

3.9.OQ COMMUNICATIONS AND SECURITY SYSTEMS – OFFICERS' QUARTERS (OQ)

A. TELECOMMUNICATION SYSTEMS:

1) Connectivity:

a) Senior Leader Quarters (SLQ): Provide each SLQ sleeping room with a single 8P8C voice outlet.

b) Common Areas: Provide data/internet ports along walls and for television.

2) CATV:

a) Senior Leader Quarters (SLQ): Provide each SLQ sleeping room with one CATV outlet.

b) Common Areas: Provide CATV for television.

3.9.SMDF COMMUNICATIONS AND SECURITY SYSTEMS – SMALL DINING FACILITY (SMDF)

A. TELECOMMUNICATION SYSTEMS:

1) CATV: The facility must include a cable television system. Where not indicated otherwise, Contractor must provide all power, cable and mounting hardware suitable for 60" minimum flat panel televisions. All CATV outlet boxes, connectors, cabling, and cabinets must conform to 4.0 APPLICABLE CRITERIA unless noted otherwise. All horizontal cabling must be homerun from the CATV outlet to the telecommunications room unless indicated otherwise. See paragraph 6 for possible additional requirements.

a) Dining Areas: Provide all power, cable, and mounting hardware suitable for minimum 60-inch flat panel televisions in each dining area, including at least four separate television locations.

b) Interior Queuing: Provide power, CATV connection, and data flat panel monitor for 60" flat panel monitor for menu display in each interior queuing area. Include power and data receptacles at each point-of-sale or headcount station.

B. COMMUNICATIONS REQUIREMENTS:

1) Data Receptacles: Data receptacles must be included in the Offices (three receptacles in each office centered on each wall without a door), Interior Queuing Module, Dry Storage, Locker, Mechanical, Electrical, and Telecommunications Rooms. Provide two empty 6-inch conduits with pull string from the soda room to each beverage station.

2) Telephone Receptacles: Telephone receptacles must be included in the Offices (three receptacles in each office centered on each wall without a door), Dry Storage, Locker, Mechanical, Electrical, and Telecommunications Rooms.

3) PA System: Provide a building-wide, zoned paging/intercom system with announcement and music (aux plug-in) capabilities from the Administrative Office over multiple zones including Kitchen, Dishwashing, Serving, Carryout, Dining, etc. This paging/intercom system may be integrated with the building mass notification system per 4.0 APPLICABLE CRITERIA.

4) Mass Notification: Provide a mass notification system with point of origin microphone in the Administrative Office. The mass notification system must tie into an existing base-wide giant voice system or as coordinated with the Installation. See Paragraph 6 for further requirements.

3.9.LGDF COMMUNICATIONS AND SECURITY SYSTEMS – LARGE DINING FACILITY (LGDF)

A. TELECOMMUNICATION SYSTEMS: The facility must include a cable television system. Where not indicated otherwise, Contractor must provide all power, cable and mounting hardware suitable for 60" minimum flat panel televisions. All CATV outlet boxes, connectors, cabling, and cabinets must conform to 4.0 APPLICABLE CRITERIA unless noted otherwise. All horizontal cabling must be homerun from the CATV outlet to the telecommunications room unless indicated otherwise. See paragraph 6 for possible additional requirements.

1) CATV:

a) Dining Areas: Provide all power, cable, and mounting hardware suitable for minimum 60-inch flat panel televisions in each dining area, including at least four separate television locations.

b) Interior Queuing: Provide power, CATV connection, and data flat panel monitor for 60" flat panel monitor for menu display in each interior queuing area. Include power and data receptacles at each point-of-sale or headcount station.

B. COMMUNICATIONS REQUIREMENTS:

1) Data Receptacles: Data receptacles must be included in the Offices (three receptacles in each office centered on each wall without a door), Interior Queuing Module, Dry Storage, Locker, Mechanical, Electrical, and Telecommunications Rooms. Provide two empty 6-inch conduits with pull string from the soda room to each beverage station.

2) Telephone Receptacles: Telephone receptacles must be included in the Offices (three receptacles in each office centered on each wall without a door), Dry Storage, Locker, Mechanical, Electrical, and Telecommunications Rooms.

3) PA System: Provide a building-wide, zoned paging/intercom system with announcement and music (aux plug-in) capabilities from the Administrative Office over multiple zones including Kitchen, Dishwashing, Serving, Dining, etc. This paging/intercom system may be integrated with the building mass notification system per 4.0 APPLICABLE CRITERIA.

4) Mass Notification: Provide a mass notification system with point of origin microphone in the Administrative Office. The mass notification system must tie into an existing base-wide giant voice system or as coordinated with the Installation. See Paragraph 6 for further requirements.

3.8.COHQ COMMUNICATIONS AND SECURITY SYSTEMS – COMPANY HEADQUARTERS (COHQ)

A. SECURITY INFRASTRUCTURE/SYSTEMS:

1) Intrusion Detection (IDS): A power and signal conduit and box system for an IDS must be provided for the Weapons Vault. The requirements for the power and signal conduit and box system must be coordinated with the Installation IDS System Administrator.

3.9.VMS COMMUNICATIONS AND SECURITY SYSTEMS – VEHICLE MAINTENANCE SHOP (VMS)

A. TELECOMMUNICATION SYSTEMS:

1) Connectivity: Data receptacles must be included in the office, in the tool room, in each service bay, and in the warehouse for the workstation. Provide minimum 6 data points along the

perimeter walls in the Weapons Cleaning & Maintenance Area above workbenches. Connectivity for the SATS to the building and installation network is required.

2) Telephone Receptacles: Telephone receptacles must be included in the office, in the tool room, in each service bay, and in the warehouse for the workstation.

3.9.BGHQ COMMUNICATIONS AND SECURITY SYSTEMS – BRIGADE HEADQUARTERS (BGHQ)

A. AUDIO/VISUAL SYSTEMS & INFRASTRUCTURE:

1) Video Teleconferencing (VTC): Coordinate specific wiring infrastructure requirements with the Installation.

a) Brigade Headquarters, Conference & EOC Rooms: Provide a conduit with pull wire or cable tray system from the conference room and Emergency Operations Center (EOC) to the telecommunications room to facilitate video teleconferencing.

B. SECURED COMMUNICATIONS:

1) SIPRNET: Provide a SIPRNET room in the Brigade Headquarters. See FUNCTIONAL REQUIREMENTS paragraph.

C. SECURITY INFRASTRUCTURE/SYSTEMS:

1) Intrusion Detection (IDS): A power and signal conduit and box system for an IDS must be provided for the SIPRNET Room. The requirements for the power and signal conduit and box system must be coordinated with the Installation IDS System Administrator.

3.10. ELECTRICAL REQUIREMENTS:

A. GENERAL: System design and construction must meet all applicable criteria identified herein and in Section 01 10 00, paragraphs 4, 5, and 6, using the most stringent in case of conflict. 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. Electrical systems, including, but not limited to, interior power, exterior and interior lighting, communication systems, cable television (CATV), public address (PA), audio visual systems, fire alarm system, mass notification system, lightning protection and grounding system, and cathodic protection system must be designed to comply with the documents listed in 4.0 APPLICABLE CRITERIA. Use distribution and utilization voltages of the highest level that is practical for the load to be served. Voltage drop must not exceed the maximum allowed per ASHRAE 90.1. Transient voltage surge protection must be provided on service equipment.

B. INTERIOR ELECTRICAL SYSTEM:

1) Transient Voltage Surge Suppression (TVSS): Transient voltage surge suppression (TVSS) must be provided for all buildings. TVSS devices must parallel the operating devices in providing a path to ground for an electrical surge and thereby limiting the magnitude of the transient voltage surges on the system. TVSS devices must be mounted adjacent to or integral with the main distribution panel in accordance with the manufacturer's recommendation. TVSS devices must be hard wired into the electrical distribution system utilizing a circuit breaker connection. TVSS units must be tested in accordance with IEEE C62.45 using IEEE C62.41 Category B waveform. Units must be UL 1449 listed and labeled. The modes of protection must be the normal mode (L-N, L-L) and common mode (L-G, N-G). TVSS units must include self-diagnostic and self-testing capabilities, a resettable transient event counter, and a local audible alarm with mute capability.

2) Receptacles: Receptacles must be provided adjacent to all CATV and data jack locations. Provide adequate power for all installed equipment requiring power to include convenience receptacles, GFGI items, vending machines, washers, dryers, ice machines, and televisions.

3) Spare Capacity: All switchboards, panel board, load centers, and feeders must be designed with 15% spare electrical load capacity throughout the building electrical system for future additions and changes.

C. EXTERIOR LIGHTING SYSTEM: Exterior lighting systems must be provided for sidewalks, roadways, service yards, facility aprons, and parking areas. Poles located within the service yards, facility aprons, and hardstand parking areas must be located and protected to minimize damage from vehicles. Building mounted light fixtures may be used around the building perimeter to supplement pole mounted light fixtures. Coordinate the control of the exterior lighting with the Installation.

D. INTERIOR LIGHTING SYSTEM:

1) Security Lighting: Security lighting must be provided at all exterior doors, including overhead doors and utility room doors. Wall mounted security lighting fixtures must be shrouded to minimize glare.

2) Exit and Emergency Lighting: Illuminated exit signs and egress/emergency lighting must be provided by self-contained emergency battery units for all emergency exits and passageways as required by NFPA 101. Exit signs must be LED type, letter color per Installation. If installed on a switched circuit, emergency lighting must be configured so that the emergency lamp is illuminated regardless of the position of the control switch.

3) Sensors: Occupancy sensors (auto on with movement and auto off with no movement) must be utilized for lighting control in the public restrooms, latrine/showers, and all vertical/horizontal circulation spaces. All other spaces must be provided with vacancy sensors (manual on or manual off and auto off with no movement).

3.10.BKS2 ELECTRICAL REQUIREMENTS – TWO STORY BARRACKS (BKS2)

A. COMPANY STORAGE: Double the number of electrical outlets along walls over the standard requirement. Include power for the wall mounted television, coordinating location with Interior Design drawings.

3.10.BKS4 ELECTRICAL REQUIREMENTS – FOUR STORY BARRACKS (BKS4)

A. COMPANY STORAGE: Double the number of electrical outlets along walls over the standard requirement. Include power for the wall mounted television, coordinating location with Interior Design drawings.

3.10.OQ ELECTRICAL REQUIREMENTS – OFFICERS' QUARTERS (OQ)

A. COMPANY STORAGE: Double the number of electrical outlets along walls over the standard requirement. Include power for the wall mounted television, coordinating location with Interior Design drawings.

3.10.SMDF ELECTRICAL REQUIREMENTS – SMALL DINING FACILITY (SMDF)

A. GENERAL AREA LIGHTING: Interior lighting controls must be provided in accordance with ASHRAE 90.1. Electronic ballasts for linear florescent lamps must be the high efficiency programmed start type. Provided lighting levels must be within +/- 10% of required lighting levels. Provide general area lighting as well as task and decorative lighting in service and public areas. The use of a variety of fixtures – pendant, surface, sconce, direct, and/or indirect – is encouraged.

See TB MED 530 for specific lighting requirements including, but not limited to intensity and protective shielding.

B. EXTERIOR LIGHTING: Provide lighting for safety and security under the entrance canopies.

C. POWER:

1) Wall Receptacles: In addition to other required receptacles, provide 120 volt duplex wall receptacles in all spaces. The maximum receptacle spacing in offices must be 12 feet with at least one receptacle on each wall. The maximum spacing between receptacles in other locations must be 25 feet.

a) Staff Locker Room: Provide a 120V receptacle along with a telephone/data jack on each wall of the locker room except where the entire wall is covered by lockers.

b) Soda Room: Provide three 20 amp dedicated 120V receptacles on each wall of the soda room, mounted at 48-inches AFF.

c) Interior Queuing: Provide power at each point of sale or headcount station.

d) Dry Storage: Provide a double duplex receptacle at desk location.

2) Spare Receptacles: In addition to receptacles required for specified pieces of equipment along the serving and salad bar lines and soda stations, provide 3-20 amp dedicated 120V spare receptacles at each soda station and 2-20 amp dedicated 120V spare receptacles along each serving and salad bar line.

3) Electrical Enclosures: The kitchen space must be considered a wet location from the finish floor to 30 inches AFF for the selection of electrical enclosures including junction boxes and switches.

4) Emergency Generator Connection: Provide an electrical disconnect and a mechanical/electrical interlock on the service entrance disconnect for a portable generator to support the full building load. Generator will be provided by others when needed for emergency use. The contractor must test this electrical disconnect, interlock and cabling by performing a full building load test using a portable generator.

5) TVSS: Provide transient voltage surge suppressors (TVSS) at service entrance panels, and panels supporting electronic equipment.

6) Retractable Drop Cord: In the food service areas, where mobile equipment requires electrical power, and the equipment is not next to a fixed wall where a receptacle can be provided, provide a retractable drop cord from the ceiling in lieu of a floor mounted box.

7) Panels: Panel boards located in accessible areas, must be lockable and keyed to one master key. Panel boards installed in the kitchen/serving areas of the building must be flush mounted.

8) Faucet Sensors: Hard-wire flush and faucet sensors when provided to eliminate batteries.

D. TELECOMMUNICATIONS:

1) Conduit: Provide 1-1/2-inch empty conduit from each queuing station monitor location to the administrative office with pull string.

3.10.LGDF ELECTRICAL REQUIREMENTS – LARGE DINING FACILITY (LGDF)

A. GENERAL AREA LIGHTING: Interior lighting controls must be provided in accordance with ASHRAE 90.1. Electronic ballasts for linear florescent lamps must be the high efficiency programmed start type. Provided lighting levels must be within +/- 10% of required lighting levels. Provide general area lighting as well as task and decorative lighting in service and public areas.

The use of a variety of fixtures – pendant, surface, sconce, direct, and/or indirect – is encouraged. See TB MED 530 for specific lighting requirements including, but not limited to intensity and protective shielding.

B. EXTERIOR LIGHTING: Provide lighting for safety and security under the entrance canopies.

C. POWER:

1) Wall Receptacles: In addition to other required receptacles, provide 120 volt duplex wall receptacles in all spaces. The maximum receptacle spacing in offices must be 12 feet with at least one receptacle on each wall. The maximum spacing between receptacles in other locations must be 25 feet.

a) Staff Locker Room: Provide a 120V receptacle along with a telephone/data jack on each wall of the locker room except where the entire wall is covered by lockers.

b) Soda Room: Provide three 20 amp dedicated 120V receptacles on each wall of the soda room, mounted at 48-inches AFF.

c) Interior Queuing: Provide power at each point of sale or headcount station.

d) Dry Storage: Provide a double duplex receptacle at desk location.

2) Spare Receptacles: In addition to receptacles required for specified pieces of equipment along the serving and salad bar lines and soda stations, provide 3-20 amp dedicated 120V spare receptacles at each soda station and 2-20 amp dedicated 120V spare receptacles along each serving and salad bar line.

3) Electrical Enclosures: The kitchen space must be considered a wet location from the finish floor to 30 inches AFF for the selection of electrical enclosures including junction boxes and switches.

4) Emergency Generator Connection: Provide an electrical disconnect and a mechanical/electrical interlock on the service entrance disconnect for a portable generator to support the full building load. Generator will be provided by others when needed for emergency use. The contractor must test this electrical disconnect, interlock and cabling by performing a full building load test using a portable generator.

5) TVSS: Provide transient voltage surge suppressors (TVSS) at service entrance panels, and panels supporting electronic equipment.

6) Retractable Drop Cord: In the food service areas, where mobile equipment requires electrical power, and the equipment is not next to a fixed wall where a receptacle can be provided, provide a retractable drop cord from the ceiling in lieu of a floor mounted box.

7) Panels: Panel boards located in accessible areas, must be lockable and keyed to one master key. Panel boards installed in the kitchen/serving areas of the building must be flush mounted.

8) Faucet Sensors: Hard-wire flush and faucet sensors when provided to eliminate batteries.

D. TELECOMMUNICATIONS:

1) Conduit: Provide 1-1/2-inch empty conduit from each queuing station monitor location to the administrative office with pull string.

3.9.COHQ ELECTRICAL REQUIREMENTS – COMPANY HEADQUARTERS (COHQ)

A. WEAPONS VAULTS: Provide minimum two electric outlets in each vault.

3.10.VMS ELECTRICAL REQUIREMENTS – VEHICLE MAINTENANCE SHOP (VMS)

A. GENERAL: Vehicle Maintenance Shop must be designed as Class I, Division 2 hazardous locations in accordance with the requirements of NEC Article 511.

B. GROUNDING: Grounding points must be provided on 40-foot centers (maximum) and coordinated with the parking layout. Provide a minimum of one grounding point for every eight vehicles parked in a double row, and one grounding point for every four vehicles parked in a single row configuration.

1) Service Bays: Grounding points must be provided in each service bay area. Provide a minimum of one grounding point for every four vehicles.

2) Tactical Vehicle Hardstand: Grounding points must be provided in vehicle and equipment parking areas on 40-foot centers (maximum) and coordinated with the parking layout. Provide a minimum of one grounding point for every eight vehicles parked in a double row, and one grounding point for every four vehicles parked in a single row configuration.

C. POWER:

1) Weapons Cleaning & Maintenance Area: Provide power outlets at least every 6 feet along the perimeter walls above workbenches.

2) Warehouse: Provide a power point to charge forklift batteries.

3.11. HEATING VENTILATING AND AIR-CONDITIONING (HVAC) REQUIREMENTS:

A. GENERAL: System design and construction must meet all applicable criteria identified herein and in Section 01 10 00, paragraphs 4, 5, and 6, using the most stringent in case of conflict. “Air conditioned” means comfort cooled and comfort heated and ventilated.

B. HVAC DESIGN CONDITIONS:

1) Outdoor Design Temperature, Cooling: The outdoor design temperature for comfort cooling must be the 1% dry bulb and the corresponding wet bulb temperature for the locale or the 1% dehumidification dew point temperature and the corresponding dry bulb temperature, whichever produces the greater cooling load.

2) Outdoor Design Temperature, Heating: The outdoor design temperature for heating must be the 99% dry bulb temperature for the locale.

3) Indoor Design Temperature, Cooling: The indoor design temperature for comfort cooling must be 15 degrees F less than the 1% outdoor air temperature, but will be no lower than 75 degrees F, nor any greater than 78 degrees F.

4) Indoor Design Temperature, Heating: The indoor design temperature for comfort heating must be 68 degrees F. Winter humidification must be required where the indoor relative humidity is expected to fall below 20%.

5) Indoor Design, Humidity: The indoor design relative humidity must be 50%.

3.11.BKS2 HVAC REQUIREMENTS – TWO STORY BARRACKS (BKS2)

A. LAUNDRY ROOM: Provide required exhaust for dryers.

3.11.BKS4 HVAC REQUIREMENTS – FOUR STORY BARRACKS (BKS4)

A. LAUNDRY ROOM: Provide required exhaust for dryers.

3.11.OQ HVAC REQUIREMENTS – OFFICERS' QUARTERS (OQ)

A. LAUNDRY ROOM: Provide required exhaust for dryers.

3.11.SMDF HVAC REQUIREMENTS – SMALL DINING FACILITY (SMDF)

A. GENERAL: The facility must be air conditioned except for the storage and service areas which must be ventilated and heated as required by code. The Kitchen, Dishwash, Pot/Pan washing must be cooled to not exceed 85 degrees Fahrenheit and heated to maintain temperature no less than 68 degrees Fahrenheit. The Can Wash must be maintained to at least 50 degrees Fahrenheit. The Kitchen, Dishwash, Pot/Pan Washing, service spaces, and Restrooms must maintain a negative pressure while the Dining and Interior Queuing areas must have a positive pressure.

B. THERMOSTATS: Locate thermostats and other wall mounted equipment to minimize damage from mobile carts, coordinating location to not be behind equipment or furniture.

C. AIR CURTAINS: Air curtain fans must be provided over frequently used openings such as personnel entry/exit doors and receiving vestibule doors, but not over exit only doors or utility room access doors. Air curtain fans must be full width of opening, mounted on the interior side immediately above the opening. Air curtain fans must be NSF rated and meet the velocity requirements of TB MED 530. See floor plans and equipment schedules in Attachment A.

D. KITCHEN HOODS: Kitchen hood systems must be stainless steel all welded construction and must include lights, filters, grease troughs and fire protection systems. Hoods must be UL and NSF approved/certified/listed. Hoods must be certified to meet the International Mechanical Code required velocities for the service application. If face discharge hoods are utilized, they must be provided with tempered makeup air. Makeup air must be tempered to 85 degrees Fahrenheit for cooling and 60 degrees for heating. Indicate kitchen hood functions by designating "Type II Condensate Laden Air Hood" and "Type I Grease Laden Air Hood" in the hood schedule. Kitchen hood systems must be designed and installed in compliance with NFPA 96. Kitchen hoods must be UL rated in accordance with UL 710.

E. EXHAUST: Dishwashing room exhaust ducts must be as short as possible with direct runs to outside of building. Ductwork must have watertight joints and a drain line from the low point. Provide a minimum of 10 air changes per hour or 25% more than dishwasher exhaust requirement, whichever is greater. Approximately 75 percent of the room air will be exhausted thru the dishwasher, with the remainder exhausted at the ceiling. Ceiling exhaust must run continuous while the facility is occupied.

F. DUCTWORK: Exposed ductwork must not be located in the kitchen or serving areas due to cleanliness requirements.

3.11.LGDF HVAC REQUIREMENTS – LARGE DINING FACILITY (LGDF)

A. GENERAL: The facility must be air conditioned except for the storage and service areas which may be ventilated and heated as required by code. The Kitchen, Dishwash, Pot/Pan washing must be cooled to not exceed 85 degrees Fahrenheit and heated to maintain temperature no less than 68 degrees Fahrenheit. The Can Wash must be maintained to at least 50 degrees Fahrenheit. The Kitchen, Dishwash, Pot/Pan Washing, service spaces, and Restrooms must maintain a negative pressure while the Dining and Interior Queuing areas must have a positive pressure.

B. THERMOSTATS: Locate thermostats and other wall mounted equipment to minimize damage from mobile carts, coordinating location to not be behind equipment or furniture.

C. AIR CURTAINS: Air curtain fans must be provided over frequently used openings such as personnel entry/exit doors and receiving vestibule doors, but not over exit only doors or utility room

access doors. Air curtain fans must be full width of opening, mounted on the interior side immediately above the opening. Air curtain fans must be NSF rated and meet the velocity requirements of TB MED 530. See floor plans and equipment schedules in Attachment A.

D. KITCHEN HOODS: Kitchen hood systems must be stainless steel all welded construction and must include lights, filters, grease troughs and fire protection systems. Hoods must be UL and NSF approved/certified/listed. Hoods must be certified to meet the International Mechanical Code required velocities for the service application. If face discharge hoods are utilized, they must be provided with tempered makeup air. Makeup air must be tempered to 85 degrees Fahrenheit for cooling and 60 degrees for heating. Indicate kitchen hood functions by designating "Type II Condensate Laden Air Hood" and "Type I Grease Laden Air Hood" in the hood schedule. Kitchen hood systems must be designed and installed in compliance with NFPA 96. Kitchen hoods must be UL rated in accordance with UL 710.

E. EXHAUST: Dishwashing room exhaust ducts must be as short as possible with direct runs to outside of building. Ductwork must have watertight joints and a drain line from the low point. Provide a minimum of 10 air changes per hour or 25% more than dishwasher exhaust requirement, whichever is greater. Approximately 75 percent of the room air will be exhausted thru the dishwasher, with the remainder exhausted at the ceiling. Ceiling exhaust must run continuous while the facility is occupied.

F. DUCTWORK: Exposed ductwork must not be located in the kitchen or serving areas due to cleanliness requirements.

3.10.COHQ HVAC REQUIREMENTS – COMPANY HEADQUARTERS (COH)

A. COOLING/HEATING: Cool and heat each company module, including the company storage.

3.11.VMS HVAC REQUIREMENTS – VEHICLE MAINTENANCE SHOP (VMS)

A. COOLING/HEATING: Provide heating and ventilation for all spaces, including in the warehouse area. Provide air conditioning only in the office, restrooms, and telecommunications room. See Section 01 10 00, paragraph 6 for additional climate determined cooling requirements.

B. EXHAUST: Provide general exhaust in maintenance bays. Exhaust fans must be non-sparking. Exhaust duct openings must be located to effectively remove vapor accumulations at floor level from all parts of the floor area including the pit. Exhaust systems must be in accordance with NFPA 30 and 30A. Energy recovery from exhaust air must be used in climate zones 3 through 8.

1) Two Service Bays: A vehicle exhaust evacuation system for wheeled vehicles must be provided in the vehicle maintenance shop with a minimum of one "snorkel" per work bay allowing for capture of exhaust fumes from stationary vehicles. Size and locate the exhaust lines as required to service vehicles and equipment within each of the two work bays. Lines must not interfere with maintenance operations or obstruct equipment such as the traveling bridge crane. The exhaust hose system must be retractable when not in use. 50% duty cycle of the total available capacity of vehicle exhaust must be considered. The using service is responsible for providing transition connectors between the vehicle exhaust and the vehicle exhaust system installed in the building. All system components must be compatible with the vehicle exhaust temperatures. Design exhaust outlets for 1400 cfm and 700 degrees F.

2) Maintenance Pit: Provide exhaust system for pit area, ducted with explosion proof fans.

3) Weapons Cleaning & Maintenance Area: A ventilation hood or other mechanical adjustment must be provided to prevent the dispersion of solvent vapors throughout the facility. The exhaust rate of the system must be designed to ensure that the occupants are not exposed to concentrations of cleaning solutions that exceed established threshold limits.

C. VENTILATION:

1) Area Exhaust: In addition to the vehicle exhaust fans, separate area exhaust fans for the maintenance bays must be provided and sized for a minimum exhaust rate of 1.5 CFM per square foot to meet ASHRAE 62.1. Exhaust duct openings must be located so that they effectively remove vapor accumulations at floor level. CO and NOx sensors must be provided throughout the maintenance bays. If a sensor registers concentrations above acceptable levels, the area exhaust fans must be started, and alarms must be initiated both locally and at the Building Automation System. Additionally, a mechanical spring wound manual AUTO/ HAND 4 hour timer switch located near the entrance door must be provided for the occupants to manually start the area exhaust fans. Exhaust fans must not be operated on a programmed time-of-day scheduler. When any vehicle exhaust fan or area exhaust fan starts, outdoor air makeup must be provided in sufficient quantity to meet the exhaust requirements while maintaining the maintenance bays at a slight negative pressure relative to the areas adjacent to the maintenance bays. Outdoor makeup air heating must be provided and controlled to maintain space temperature during the heating season. Cooling of outdoor air makeup is not required.

2) The warehouse, tool storage, air compressor, mechanical, and electrical rooms must have a ventilation rate that maintains the spaces at a maximum of 10 degrees (F) above ambient conditions.

D. PRESSURIZATION: Air supplied into the air conditioned areas must be cascaded into adjacent areas for pressurization and to prevent polluted air from entering the air conditioned areas.

E. SYSTEM SELECTION: Return air plenum systems are not acceptable.

1) Maintenance Bays: Maintenance bays and work bench area must be heated to 55 degrees F. by some form of radiant heating; overhead gas infrared, in-floor hydronic, or some combination thereof.

2) Warehouse and Tool Storage: The warehouse and tool storage must be heated to 40 degrees F for freeze protection.

3) Office and Restrooms: Office and restrooms must be heated and cooled in accordance with Paragraph 5 of Section 01 10 00. Consider packaged equipment, split systems.

4) Telecommunications Room: Telecommunications Room must be served by an independent and dedicated air-handling system. Air handling unit system(s) must not be floor-space mounted within the actual space served. Room must be maintained at 72 degrees F and 50 percent relative humidity year-round. Assume 1941 Watts for communications room. Contractor must verify this load during the design stage.

3.12. ENERGY CONSERVATION REQUIREMENTS:

A. ENERGY ENHANCEMENTS: The following energy enhancements may be included to meet energy conservation requirements indicated in paragraph 5 of the RFP Package:

1) Optimize building orientation (East-West Axis with Passive Solar shading geometry).

2) Tight construction with Infiltration less than 0.15 cfm per square foot of exterior envelope area at 75 PA.

3) Added insulation to high performance ‘Passivhaus’ levels (See the Insulation Requirements and Window Characteristics Table per climatic zone below).

4) Design detailing to eliminate thermal bridges that allow heat to bypass insulation.

5) Windows: Triple-pane, Energy Star, with low-E coatings appropriate to climatic zone.

6) Lighting: lower lighting consumption to average 0.75W/ft2 or less. To achieve this performance, consider the following:

    a. Low maintenance, low wattage-per-lumen technologies, e.g. SSL/LED fixtures.
    b. Occupancy, Vacancy, and Daylighting sensors for active ambient light control.
    c. Increase vertical glazing by 50% over standard designs.
    d. Increase Skylight to Floor Area (SFA) fraction to 3% over corridors, admin areas and office areas.
    e. Use digital multi-zone lighting controls with individually addressable fixtures.

7) 'Cool Roof' finishes where cooling load exceeds heating (e.g. Climate Zones 1-5).

8) Top Tier Energy Star or FEMP rated appliances and equipment.

9) Demand/user controlled High Efficiency HVAC equipment per ASHRAE 189.1.

10) Optimize HVAC zones with respect to user schedules and occupancy.

11) Include Energy Recovery Ventilation (ERV) systems with >75% efficiency.

12) Dedicated Outside Air System (DOAS) for ventilation with heat recovery for assembly and heat/fume generating activities.

13) Indirect Evaporative Pre-Cooling (IEPC or IDEC) for Dry Climates (Climate Zones xB).

14) HVAC equipment efficiency ratings (e.g. COP) that exceed ASHRAE 189.1 (C) requirements.

15) High Efficiency condensing boilers with >90% efficiency and/or incorporate Ground-Source Heat Pump technology.

16) NEMA MG1 Premium Efficiency/ Electronically Commutated Motors (ECM) motors.

17) Variable Air Volume (VAV) or hydronic distribution; consider radiant heating systems, especially in maintenance bays, and "Radiant" cooling systems in ceilings.

18) Measurement and Verification (M&V) systems.

19) On-site Renewable Energy elements:

    a. Transpired Solar Collectors in Climate Zones 2A to 8.
    b. SSL/LED parking and street lighting; site-specific light distribution patterns.
    c. Prepackaged pole-mounted solar site lighting solutions.

20) Include 30% demand solar water heating in areas where the average sun exposure is equal or greater than 4.0 kWh/m2 per day according to the National Renewable Energy Lab (http://www.nrel.gov/gis/solar.html).

21) Maximum flow rates for plumbing fixtures per ASHRAE 189.1.

22) Dual-flush toilets.

23) Waterless Urinals: urinals that use either no water or no potable water (e.g. may use harvested rainwater or reclaimed greywater).

24) Stormwater management: Meet local codes and Low Impact Development (LID) best practices (e.g. pervious pavement, rainwater harvesting, swales, bioretention ponds).

3.13. FIRE PROTECTION REQUIREMENTS:

A. GENERAL: System design and construction must meet all applicable criteria identified herein and in Section 01 10 00, paragraphs 4, 5, and 6, using the most stringent in case of conflict. All facility types require full protection throughout by an automatic sprinkler system in accordance with NFPA and UFC documents.

B. FIRE PUMP: A fire pump or fire booster pump must be provided if required, based on the available flow and pressure. (Prior to award, contractors must use the flow test data provided. After award, designer of record must be responsible for performing a hydrant flow test.) Data from this test must be used as the basis for design as indicated above for automatic sprinkler protection. When a fire pump is required, an additional room must be created, preferably within or near the mechanical room, changing the building floor plan without adding to the total floor area. These changes must be made during design and will require COS approval.

C. FIRE DETECTION AND ALARM SYSTEMS: The fire alarm system installation must be supervised by a National Institute for Certification of Engineering Technologies (NICET) Level 3 (minimum) technician. 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 must become property of the Government and be furnished to the Contracting Officer's Representative prior to final inspection of the system.

3.13.BNHQ FIRE PROTECTION REQUIREMENTS – BATTALION HEADQUARTERS (BNHQ)

A. SUGGESTED USE AND OCCUPANCY: IBC, Group B (Offices). NFPA 101, New Business (Offices).

3.13.BKS2 FIRE PROTECTION REQUIREMENTS – TWO STORY BARRACKS (BKS2)

A. SUGGESTED USE AND OCCUPANCY: IBC, Group R-1 (Residential Transient). NFPA 101, New Hotels & Dormitories.

B. FIRE DETECTION AND ALARM SYSTEMS: Smoke detection devices must be individually monitored and addressed in the senior leader's quarters and the sleeping bays. Tampering with a smoke detector must transmit a trouble signal to the Fire Department. A smoke detector with sounder must be provided. The fire alarm system must be programmed so that the activation of the smoke detector must activate the sounder in the sleeping room and/or sleeping bay, but must be connected to the FACP for supervision only and must not activate the general alarm.

3.13.BKS4 FIRE PROTECTION REQUIREMENTS – FOUR STORY BARRACKS (BKS4)

A. SUGGESTED USE AND OCCUPANCY: IBC, Group R-1 (Residential Transient). NFPA 101, New Hotels & Dormitories.

B. FIRE DETECTION AND ALARM SYSTEMS: Smoke detection devices must be individually monitored and addressed in the senior leader's quarters and the sleeping bays. Tampering with a smoke detector must transmit a trouble signal to the Fire Department. A smoke detector with sounder must be provided. The fire alarm system must be programmed so that the activation of

the smoke detector must activate the sounder in the sleeping room and/or sleeping bay, but must be connected to the FACP for supervision only and must not activate the general alarm.

3.13.OQ FIRE PROTECTION REQUIREMENTS – OFFICERS QUARTERS (OQ)

A. SUGGESTED USE AND OCCUPANCY: IBC, Group R-1 (Residential Transient). NFPA 101, New Hotels & Dormitories.

B. FIRE DETECTION AND ALARM SYSTEMS: Smoke detection devices must be individually monitored and addressed in the senior leader's quarters. Tampering with a smoke detector must transmit a trouble signal to the Fire Department. A smoke detector with sounder must be provided. The fire alarm system must be programmed so that the activation of the smoke detector must activate the sounder in the senior leader's quarters sleeping room, but must be connected to the FACP for supervision only and must not activate the general alarm.

3.13.SMDF FIRE PROTECTION REQUIREMENTS – SMALL DINING FACILITY (SMDF)

A. SUGGESTED USE AND OCCUPANCY: IBC Group A-2 (Assembly-Restaurant). NFPA 101, New Assembly (Restaurant).

B. LOADING DOCK: Provide sprinkler protection for the covered loading dock. Suggest that the loading dock be classified as ordinary hazard group 2 per NFPA.

3.13.LGDF FIRE PROTECTION REQUIREMENTS – LARGE DINING FACILITY (LGDF)

A. SUGGESTED USE AND OCCUPANCY: IBC Group A-2 (Assembly-Restaurant). NFPA 101, New Assembly (Restaurant).

B. LOADING DOCK: Provide sprinkler protection for the covered loading dock. Suggest that the loading dock be classified as ordinary hazard group 2 per NFPA.

3.13.COHQ FIRE PROTECTION REQUIREMENTS – COMPANY HEADQUARTERS (COHQ)

A. SUGGESTED USE AND OCCUPANCY: IBC Group B (Offices). NFPA 101, New Business (Offices).

3.3.1.VMS FIRE PROTECTION REQUIREMENTS – VEHICLE MAINTENANCE SHOP (VMS)

A. SUGGESTED USE AND OCCUPANCY: IBC Group S-1 (Moderate Hazard Storage – Repair Garage). NFPA 101, Industrial Occupancy (Special Purpose Industrial – Repair Shop) and Storage Occupancy (Warehouse)

3.13.BGHQ FIRE PROTECTION REQUIREMENTS – BRIGADE HEADQUARTERS (BGHQ)

A. SUGGESTED USE AND OCCUPANCY: IBC, Group B (Offices). NFPA 101, New Business (Offices).

3.14. SEE PARAGRAPH 6.14 SUSTAINABLE DESIGN – NOT USED

3.15. SEE PARAGRAPH 6.15 ENVIRONMENTAL DESIGN – NOT USED

3.16. SEE PARAGRAPH 6.16 PERMITS – NOT USED

3.17. SEE PARAGRAPH 6.17 DEMOLITION – NOT USED

3.18. SEE PARAGRAPH ADDITIONAL FACILITIES – NOT USED

3.19. EQUIPMENT AND FURNITURE REQUIREMENTS:

3.19.1. FURNISHINGS:

A. GENERAL: Refer to the standard design drawings for required furniture layout to develop the FF&E Package.

B. WINDOW TREATMENTS: Provide horizontal mini blinds at all windows in all facility types except for windows in doors, stairways, and storefronts.

3.19.2. EQUIPMENT:

A. GENERAL: Refer to the standard design drawings for required equipment shown on the floor plans and furniture layout to develop the FF&E Package.

3.19.2.SMDF EQUIPMENT – SMALL DINING FACILITY (SMDF)

A. GOVERNMENT FURNISHED EQUIPMENT: Government furnished equipment will be delivered prior to final completion of the building. Where indicated, the Contractor must provide an optional bid to provide all Government Furnished equipment items. In all cases, Contractor must plan for and coordinate installation of this equipment as well as for Vendor provided equipment, and must provide clearances, space, power, data, water, drains, conduits, etc. as required for equipment to be operational. The Contractor must consider the heat generated by this all equipment in determining cooling loads. See enclosed kitchen equipment plans for identification of Contractor furnished versus Government and Vendor furnished equipment. In addition, all movable furnishings will be based on the Contractor's FF&E Package and must be Government furnished unless otherwise indicated as an optional bid item.

3.19.2.LGDF EQUIPMENT – SMALL DINING FACILITY (SMDF)

A. GOVERNMENT FURNISHED EQUIPMENT: Government furnished equipment will be delivered prior to final completion of the building. Where indicated, the Contractor must provide an optional bid to provide all Government Furnished equipment items. In all cases, Contractor must plan for and coordinate installation of this equipment as well as for Vendor provided equipment, and must provide clearances, space, power, data, water, drains, conduits, etc. as required for equipment to be operational. The Contractor must consider the heat generated by this all equipment in determining cooling loads. See enclosed kitchen equipment plans for identification of Contractor furnished versus Government and Vendor furnished equipment. In addition, all movable furnishings will be based on the Contractor's FF&E Package and must be Government furnished unless otherwise indicated as an optional bid item.

3.19.2.VMS EQUIPMENT – VEHICLE MAINTENANCE SHOP (VMS)

A. PROCESSING AND HANDLING EQUIPMENT

1) Service Bay: Provide an Overhead Crane capable of supporting 10-tons with a minimum overall hook height of 20 feet to service both bays. Crane must be designed and constructed to CMAA 70 (Class C) or CMAA 74 (moderate requirements) for operation with hoist in accordance with ASME HST-1 or HST-4. Rated load speeds must consist of (plus or minus 15 percent):

a) Hoist - 20 fpm

b) Trolley - 65 fpm

c) Bridge - 125 fpm

3.20. FACILITY SPECIFIC REFERENCES: (NOT USED)

ATTACHMENT A: STANDARD DESIGN DRAWINGS

All Drawings are in compliance with Army Standard (AS) and the USACE A/E/C CADD Standards.

GENERAL SHEETS: OPERATIONAL READINESS TRAINING COMPLEX: TRANSIENT TRAINING

G-001	ORTC COVER SHEET
G-002	ORTC BATTALION COMPLEX SITE PLAN
G-003	ORTC BRIGADE COMPLEX SITE PLAN

BATTALION HEADQUARTERS BULDING: TRANSIENT TRAINING

G-004	BATTALION HEADQUARTERS BUILDING COVER SHEET
A-004	BATTALION HEADQUARTERS BUILDING FLOOR PLAN
A-005	BATTALION HEADQUARTERS BUILDING EXTERIOR ELEVATIONS

2- STORY BARRACKS: TRANSIENT TRAINING

G-006	BARRACKS COVER SHEET (2-STORY)
A-006	BARRACKS FIRST FLOOR PLAN: (2-STORY)
A-007	BARRACKS SECOND FLOOR PLAN: (2-STORY)
A-007A	BARRACKS OPTIONAL FURNITURE LAYOUTS: (2-STORY)
A-008	BARRACKS ENLARGED FLOOR PLANS: (2-STORY)
A-009	BARRACKS ELEVATIONS: (2-STORY)
A-010	FINSH SCHEDULE

4- STORY BARRACKS: TRANSIENT TRAINING

G-011	BARRACKS COVER SHEET (4-STORY)
A-011	BARRACKS FIRST FLOOR PLAN: (4-STORY)
A-012	BARRACKS SECOND FLOOR PLAN: (4-STORY)
A-013	BARRACKS THIRD FLOOR PLAN: (4-STORY)
A-014	BARRACKS FOURTH FLOOR PLAN: (4-STORY)
A-014A	BARRACKS OPTIONAL FURNITURE LAYOUTS: (4-STORY)
A-015	BARRACKS ENLARGED FLOOR PLANS: (4-STORY)
A-016	BARRACKS ELEVATIONS: (4-STORY)
A-017	FINISH SCHEDULE

OFFICERS QUARTERS: TRANSIENT TRAINING

G-018	OFFICERS QUARTERS COVER SHEET
A-018	OFFICERS QUARTERS FLOOR PLANS
A-019	OFFICERS QUARTERS ENLARGED FLOOR PLANS
A-020	OFFICERS QUARTERS ELEVATIONS

SMALL DINING FACILITY: TRANSIENT TRAINING

G-021	SMDF COVER SHEET
A-021	SMDF FLOOR PLAN
A-022	SMDF EXTERIOR ELEVATIONS
A-023	SMDF EQUIPMENT SCHEDULE

LARGE DINING FACILITY: TRANSIENT TRAINING

G-024	LGDFCOVER SHEET

A-024 LGDF FLOOR PLAN
A-025 LGDF EXTERIOR ELEVATIONS
A-026 LGDF EQUIPMENT SCHEDULE

COMPANY HEADQUARTERS BULDING: TRANSIENT TRAINING

G-027 COMPANY HEADQUARTERS BUILDING COVER SHEET
A-027 COMPANY HEADQUARTERS BUILDING FLOOR PLAN
A-028 COMPANY HEADQUARTERS BUILDING ENLARGED PLANS
A-029 COMPANY HEADQUARTERS BUILDING ELEVATIONS

VEHICLE MAINTENANCE SHOP: TRANSIENT TRAINING

G-030 VEHICLE MAINTENANCE SHOP COVER SHEET
A-030 VEHICLE MAINTENANCE SHOP FLOOR PLAN
A-031 VEHICLE MAINTENANCE SHOP ELEVATIONS

BRIGADE HEADQUARTERS BULDING: TRANSIENT TRAINING

G-032 BRIDAGE HEADQUARTERS BUILDING COVER SHEET
A-032 BRIGADE HEADQUARTERS BUILDING FLOOR PLAN
A-033 BRIGADE HEADQUARTERS BUILDING ELEVATIONS

US Army Corps of Engineers ®
LOUISVILLE DISTRICT

DEPARTMENT OF THE ARMY
FACILITIES STANDARDIZATION PROGRAM
OPERATIONAL READINESS TRAINING COMPLEX (ORTC) STANDARD DESIGN V4.8

INDEX OF DRAWINGS

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G-002	BATTALION COMPLEX SITE PLAN
G-003	BRIGADE COMPLEX SITE PLAN
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BATTALLION HQ INDEX

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ARCHITECTURAL	
A-004	FLOOR PLAN
A-005	EXTERIOR ELEVATIONS
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TWO STORY BARRACKS INDEX

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G-006	COVER SHEET
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A-006	BARRACKS FIRST FLOOR PLAN
A-007	BARRACKS SECOND FLOOR PLAN
A-007A	BARRACKS OPTIONAL FURNITURE LAYOUT
A-008	ENLARGED FLOOR PLANS
A-009	EXTERIOR ELEVATIONS
A-010	FINISH SCHEDULE
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FOUR STORY BARRACKS INDEX

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G-011	COVER SHEET
ARCHITECTURAL	
A-011	FIRST FLOOR PLAN
A-012	SECOND FLOOR PLAN
A-013	THIRD FLOOR PLAN
A-014	FOURTH FLOOR PLAN
A-014A	BARRACKS OPTIONAL FURNITURE LAYOUT
A-015	ENLARGED FLOOR PLANS
A-016	EXTERIOR ELEVATIONS
A-017	FINISH SCHEDULE
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G-018	COVER SHEET
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A-021	FLOOR PLAN
A-022	EXTERIOR ELEVATIONS
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LARGE DINING FACILITY INDEX

SHEET NO.	SHEET TITLE
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G-024	COVER SHEET
ARCHITECTURAL	
A-024	FLOOR PLAN
A-025	EXTERIOR ELEVATIONS
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COMPANY HEADQUARTERS INDEX

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G-027	COVER SHEET
ARCHITECTURAL	
A-027	FIRST FLOOR PLAN
A-028	ENLARGED PLANS
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VEHICLE MAINTENACE INDEX

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G-030	COVER SHEET
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A-030	FLOOR PLAN
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BRIGADE HEADQUARTERS INDEX

SHEET NO.	SHEET TITLE
GENERAL	
G-032	COVER SHEET
ARCHITECTURAL	
A-032	FLOOR PLAN
A-033	EXTERIOR ELEVATIONS
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ADAPTATION OF THE STANDARD DESIGN:

THE GENERAL ARRANGEMENT OF SPACES AND THE RELATIONSHIP OF FUNCTIONAL GROUPS TO ONE ANOTHER ARE MANDATORY. MINOR VARIATIONS IN THE BASIC DESIGN FORMS FOR THE BUILDING SHOWN IN THIS STANDARD ARE PERMISSIBLE AS DETERMINED BY THE CENTER OF STANDARDIZATION (COS), TO ACCOMMODATE MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS.

MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS ARE ENCOURAGED; HOWEVER, THERE MUST BE NO LOSS IN DURABILITY DUE TO THE USE OF THESE SYSTEMS AS DETERMINED BY THE COS AND AS COMPARED TO THE TYPICAL CONSTRUCTION SYSTEMS AND FINISHES INDICATED WITHIN THIS PACKAGE.

MATERIAL SELECTIONS, EXTERIOR/INTERIOR DESIGN DETAILS, MECHANICAL, ELECTRICAL, AND STRUCTURAL SYSTEMS DESIGN MAY VARY AS REQUIRED IN RESPONSE TO LOCAL CLIMATIC AND GEOGRAPHICAL CONDITIONS, LOCAL CONSTRUCTION PRACTICES, AVAILABILITY OF CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS.

THE STANDARD DESIGN REQUIREMENTS AND THE INSTALLATION ARCHITECTURAL THEME MUST BE ANALYZED BY THE INSTALLATION IN CONJUNCTION WITH THE DESIGN AGENT TO ASSURE CONFORMANCE.

BUILDING ELEVATIONS SHOWN ILLUSTRATE POSSIBLE DESIGN SOLUTIONS AND ARE NOT MANDATED. THE INTENT IS TO ALLOW DESIGNERS FLEXIBILITY CONSISTENT WITH THE INSTALLATION DESIGN GUIDE, WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE FACILITY TYPE.

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DATED: VERSION 4.8 FEBRUARY 2021

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY: LJG/JJS
CHECKED BY: JJS
SUBMITTED BY:
ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX (ORTC) STANDARD DESIGN

DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

OPERATIONS READINESS TRAINING COMPLEX (ORTC) STANDARD DESIGN

COVER SHEET

SHEET ID
ORTC
G-001

File Path: C:\Users\h2edajjs\Documents\COS ORTC_SITE_V4.7_h2edajjs.rvt
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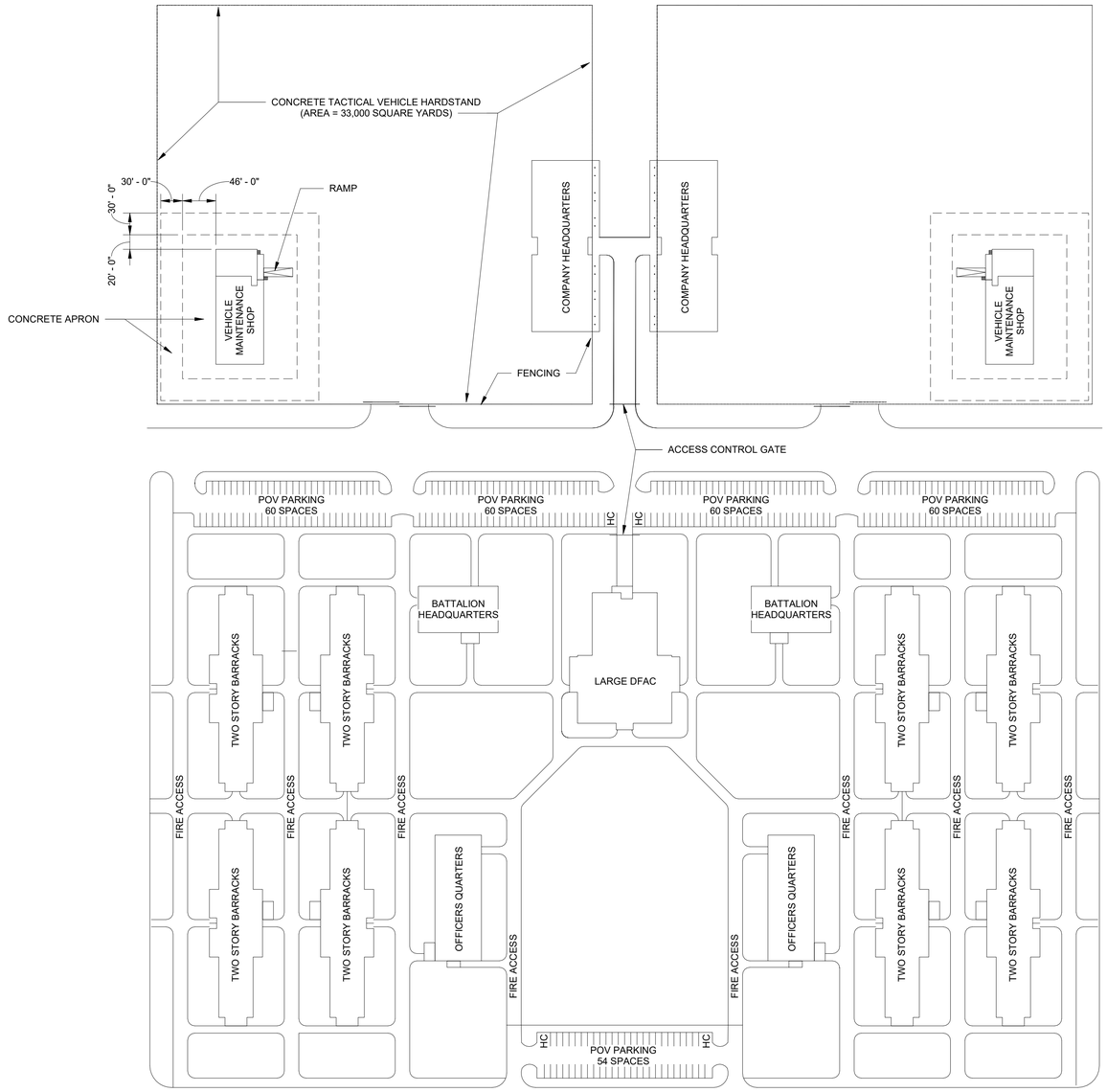

1 TWO BATTALION COMPLEX SITE PLAN

1" = 100'-0"

APPROXIMATE BATTALION SITE COMPLEX = 46 ACRES

0' 100' 200'

GENERAL NOTES:

1. THE TWO-BATTALION COMPLEX SITE PLAN ILLUSTRATES ONE ACCEPTABLE SOLUTION. DESIGNER MUST DEVELOP THE PLAN TO MEET INSTALLATION SPECIFIC CONDITIONS AS WELL AS STANDARD DESIGN CRITERIA.
2. WHERE ONLY ONE BATTALION COMPLEX IS REQUIRED, THE SITE PLAN MUST INCLUDE THE FOLLOWING:
   - FOUR 2-STORY BARRACKS OR TWO 4-STORY BARRACKS.
   - ONE OFFICERS' QUARTERS (SENIOR LEADERS QUARTERS).
   - ONE BATTALION HEADQUARTERS.
   - ONE COMPANY HEADQUARTERS.
   - ONE VEHICLE MAINTENANCE SHOP.
   - 33,000 SY TACTICAL VEHICLE HARDSTAND.
   - ONE SMALL DFAC (OR ONE LARGE DFAC, SEE NOTE 3.)
3. THE INSTALLATION MAY MASTERPLAN FOR ANY NUMBER OF BATTALION SETS. FOR EVERY TWO BATTALION SETS PLANNED, RECOMMEND THAT THE LARGE DFAC BE USED, EVEN IF ONE IS BUILT WITH THE OTHER PLANNED FOR THE FUTURE. IF ONLY ONE BATTALION SET IS PLANNED, USE THE SMALL DFAC.
4. OPEN SITE SPACES ARE NOT MANDATORY, HOWEVER SHOULD BE CONSIDERED AS PART OF THE OVERALL PLAN WHEN FEASIBLE.
5. BATTALION SET PARKING ILLUSTRATES ONE SOLUTION FOR POV PARKING:
   - 60 + 4 HC PARKING SPACES FOR THE LARGE DFAC, MINIMUM REQUIRED.
   - 40 SPACES FOR THE TWO OFFICERS QUARTERS, MINIMUM REQUIRED.
   - 190 SPACES FOR THE 8 BARRACKS BUILDINGS, OPTIONAL PER INSTALLATION.
6. POV PARKING FOR THE BARRACKS MUST BE AS DETERMINED BY THE INSTALLATION. THE STANDARD DESIGN DOES NOT HAVE A MANDATORY REQUIREMENT FOR BARRACKS PARKING.
7. THE TACTICAL VEHICLE HARDSTAND SIZE OF 33,000 SY EXCLUDES THE FOOTPRINTS OF THE COMPANY HEADQUARTERS AND VEHICLE MAINTENANCE. THE INSTALLATION MAY CHOOSE TO SPLIT THE HARDSTAND IF NEEDED TO FIT THE SITE.

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM

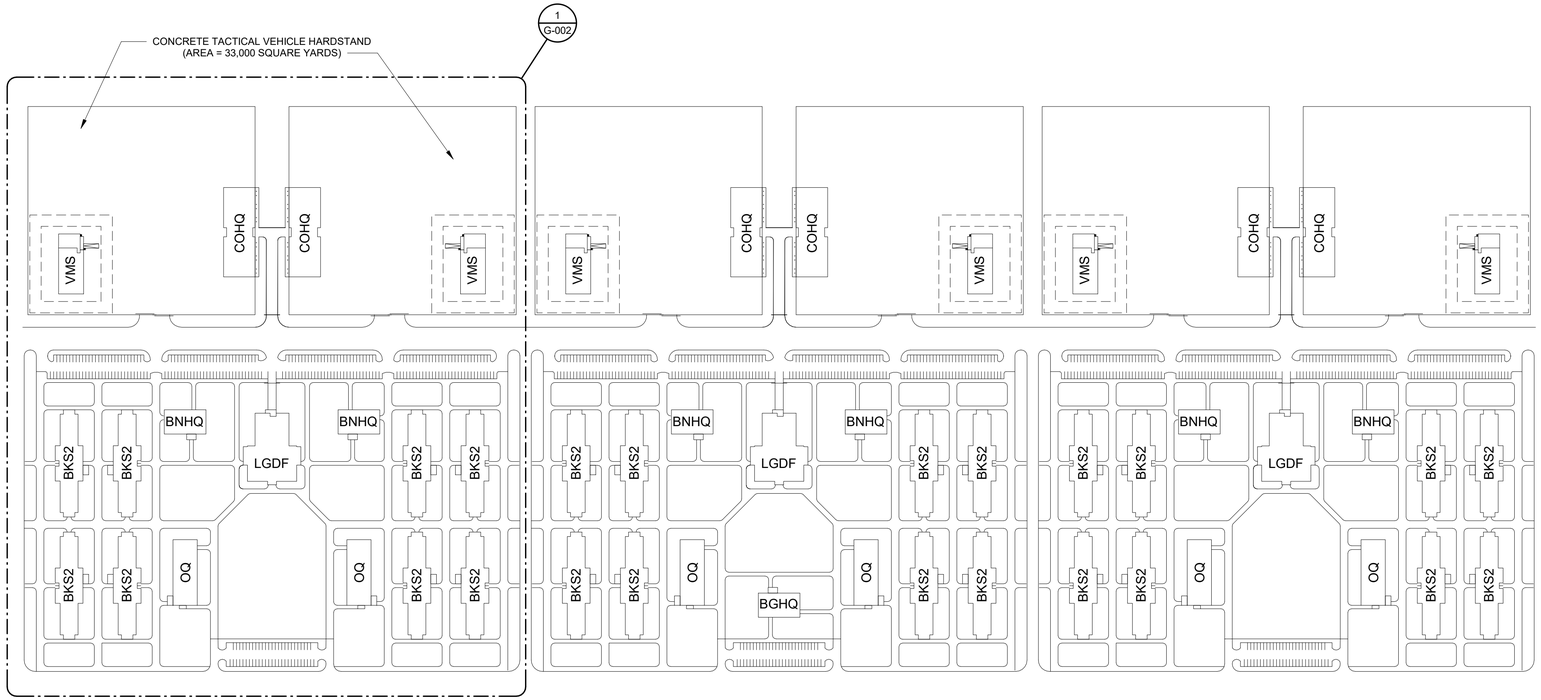
OPERATIONAL READINESS TRAINING COMPLEX (ORTC) STANDARD DESIGN

BATTALION COMPLEX SITE PLAN

SHEET ID
ORTC
G-002

GENERAL NOTES:

1. THE BRIGADE COMPLEX SITE PLAN ILLUSTRATES ONE ACCEPTABLE SOLUTION. DESIGNER MUST DEVELOP THE PLAN TO MEET INSTALLATION SPECIFIC CONDITIONS AS WELL AS STANDARD DESIGN CRITERIA.
2. THE BRIGADE COMPLEX CONSISTS OF SIX BATTALOIN SETS
3. THE BRIGADE HEADQUARTERS BUILDING MAY BE PROVIDED AFTER FOUR BATTALION SETS ARE COMPLETE, OR AS DETERMINED BY THE INSTALLATION.



1 BRIGADE COMPLEX SITE PLAN
1" = 200'-0"

APPROXIMATE BRIGADE SITE COMPLEX = 137 ACRES
0 200 400

US Army Corps of Engineers ®

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CHECKED BY: JJS
SUBMITTED BY:
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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

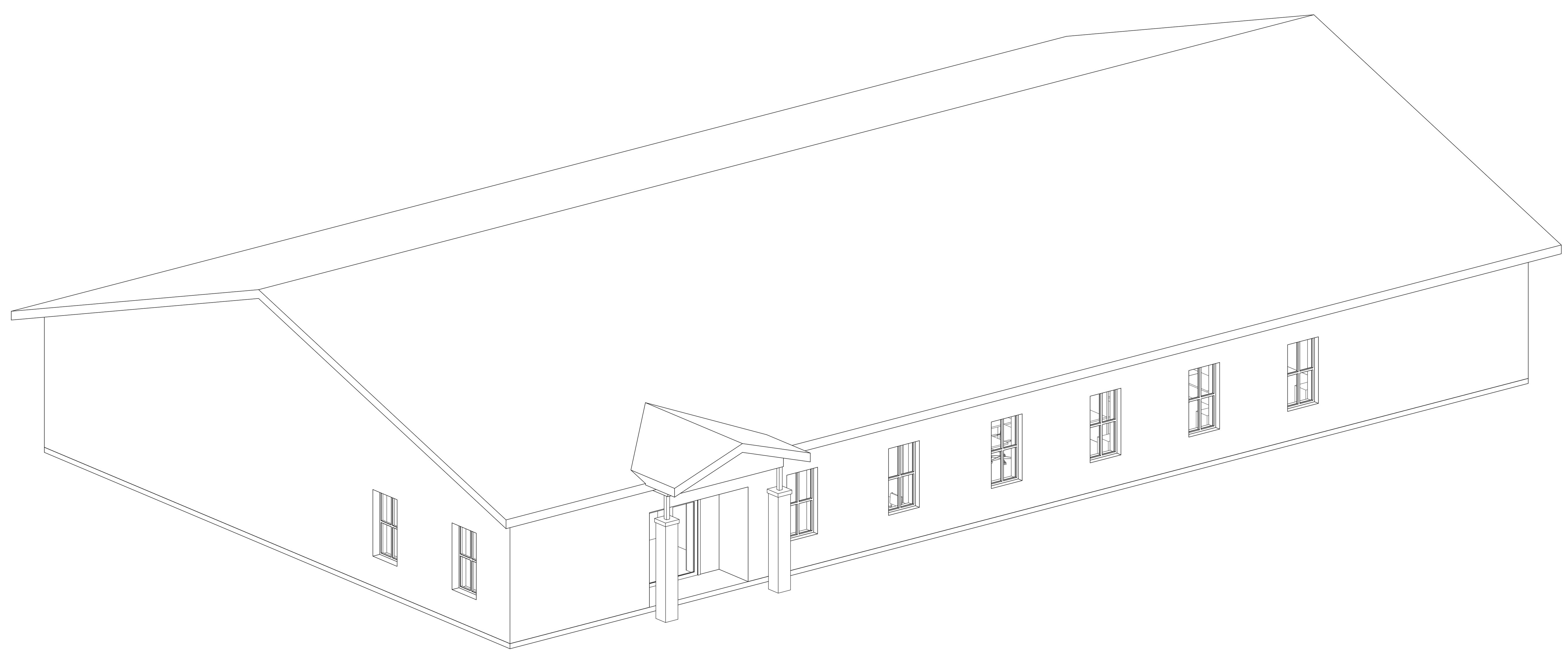
OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
OPERATIONAL READINESS TRAINING COMPLEX (ORTC) STANDARD DESIGN
BRIGADE COMPLEX SITE PLAN

SHEET ID
ORTC
G-003

DEPARTMENT OF THE ARMY FACILITIES STANDARDIZATION PROGRAM (ORTC) STANDARD DESIGN V4.8 BATTALION HEADQUARTERS: TRANSIENT TRAINING

US Army Corps of Engineers ®
LOUISVILLE DISTRICT



INDEX OF DRAWINGS

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DATED: VERSION 4.7, FEBRUARY 2020

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

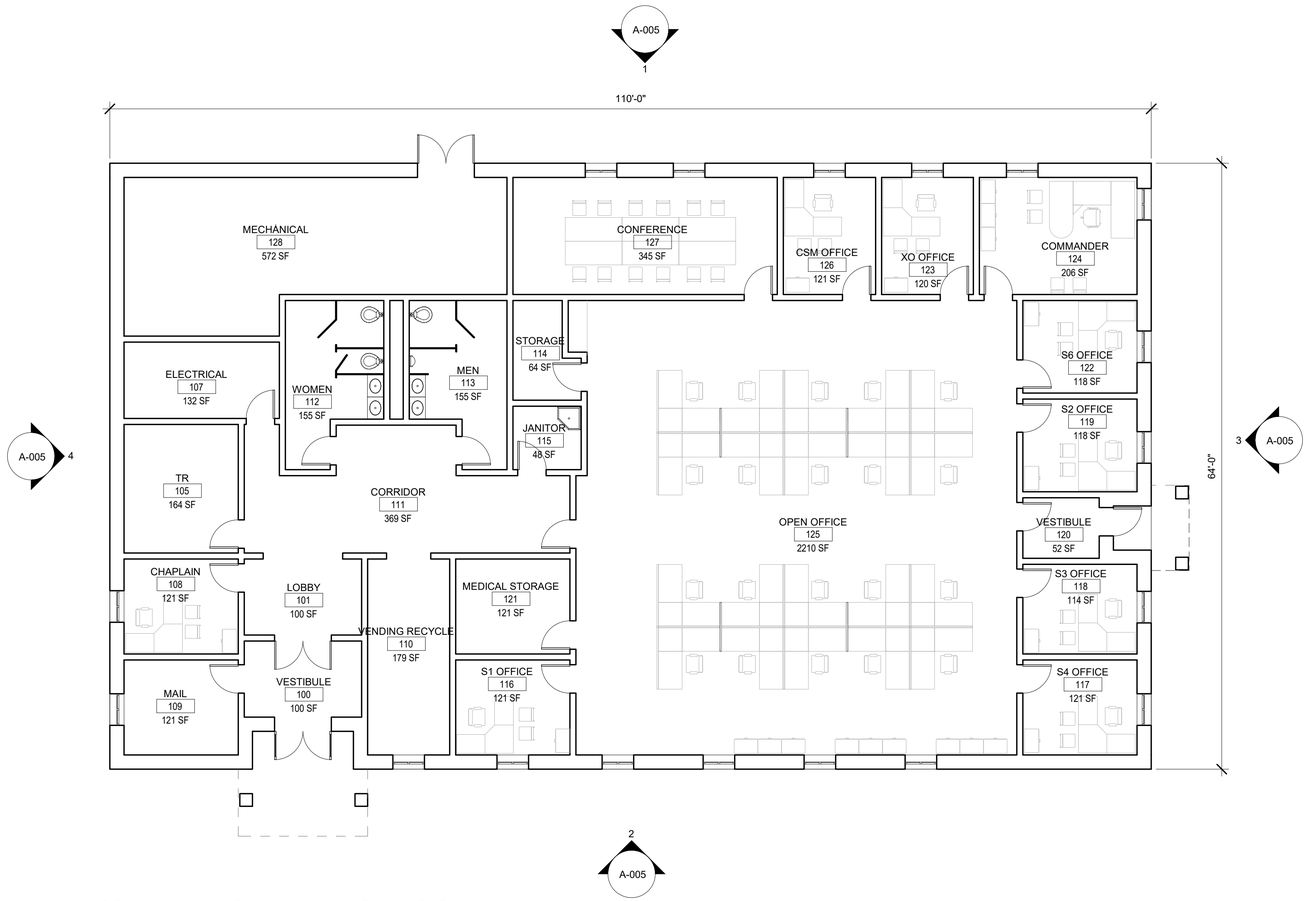
OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

BATTALION HEADQUARTERS

COVER SHEET

SHEET ID
BNHQ
G-004



1 A-004 BATTALION HEADQUARTERS FLOOR PLAN

1/8" = 1'-0"

FINISH SCHEDULE

ROOM NO	ROOM NAME	FINISH				MIN. CLNG HEIGHT	MIN STC	Area	NOTES & REMARKS (SEE NOTES)
		FLOOR	BASE	WALL	CLNG				
COMMANDERS SUITE									
114	STORAGE	CONC	RB	GWB	ACT	9'-0"	--	64 SF	
116	S1 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	121 SF	
117	S4 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	121 SF	
118	S3 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	114 SF	
119	S2 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	118 SF	
121	MEDICAL STORAGE	CONC	RB	GWB	ACT	9'-0"	45	121 SF	
122	S6 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	118 SF	
123	XO OFFICE	CONC	RB	GWB	ACT	9'-0"	45	120 SF	
124	COMMANDER	CONC	RB	GWB	ACT	9'-0"	45	206 SF	
125	OPEN OFFICE	CONC	RB	GWB	ACT	9'-0"	45	2210 SF	
126	CSM OFFICE	CONC	RB	GWB	ACT	9'-0"	45	121 SF	
127	CONFERENCE	CONC	RB	GWB	ACT	9'-0"	45	345 SF	
SERVICE									
105	TR	CONC	RB	GWB	GWB	9'-0"	--	164 SF	MIN ROOM = 1.1% OF BLDG AREA
107	ELECTRICAL	CONC	RB	GWB	GWB	9'-0"	--	132 SF	
128	MECHANICAL	CONC	RB	GWB	EXP	9'-0"	45	572 SF	
SOLDIERS SERVICES									
100	VESTIBULE	CONC	RB	GWB	ACT	9'-0"	--	100 SF	
101	LOBBY	CONC	RB	GWB	ACT	9'-0"	--	100 SF	
108	CHAPLAIN	CONC	RB	GWB	ACT	9'-0"	45	121 SF	
109	MAIL	CONC	RB	GWB	GWB	9'-0"	45	121 SF	
110	VENDING RECYCLE	CONC	RB	GWB	ACT	9'-0"	--	179 SF	
111	CORRIDOR	CONC	RB	GWB	ACT	9'-0"	45	369 SF	
112	WOMEN	CT	CT	MRG	MRG	9'-0"	45	155 SF	
113	MEN	CT	CT	MRG	MRG	9'-0"	45	155 SF	
115	JANITOR	CONC	RB	GWB	MRG	9'-0"	--	48 SF	
120	VESTIBULE	CONC	RB	GWB	ACT	9'-0"	45	52 SF	

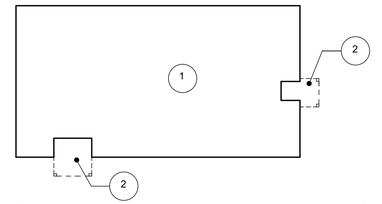
FINISH LEGEND

ACT	2'-0" X 2'-0" ACOUSTIC CEILING TILE
CMU	PAINTED CONCRETE MASONRY UNIT
CONC	SEALED CONCRETE
CT	CERAMIC TILE
EXP	EXPOSED PAINTED STRUCTURE
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD PAINTED
RB	RUBBER BASE

FINISH NOTES

1	ROOM FINISH SHOWN ARE MINIMUM REQUIRED.
2	PROPOSED NET SF SHOWN IS AS REFLECTED IN THE STANDARDS FLOOR PLANS. FLOOR AREAS MAY CHANGE TO ALLOW FOR ADJUSTMENTS DUE TO STRUCTURAL, UTILITIES AND CODE REQUIREMENTS, WITHOUT AFFECTING FUNCTION.
3	WHEN PRECAST CONCRETE STRUCTURE IS USED, PAINT ALL EXPOSED STRUCTURE CEILING ITEMS INCLUDING CONCRETE, DECK, CONDUIT, DUCTWORK, STEEL STRUCTURE, ETC. FOR AN ACCEPTABLE CEILING FINISH, FOR OTHER STRUCTURAL CONDITIONS (SUCH AS TRUSSES, JOISTS, ETC.) PROVIDE PAINTED GYPSUM BOARD FOR THE MINIMUM CEILING FINISH.
4	THE FF&E PACKAGE WILL BE DEVELOPED BY THE GOVERNMENT. THE FURNITURE IN THE FF&E PACKAGE WILL BE PROVIDED BY THE GOVERNMENT. THE CONTRACTOR MUST COORDINATE FURNITURE AND UTILITY REQUIREMENTS WITH THE FF&E PACKAGE.

AREA CALCULATIONS



1	BUILDING AREAS AT FULL VALUE		= 6,975 SF
2	EXTERIOR COVERED AREA AT HALF VALUE	[(120 + 80) X 1/2]	= 100 SF
	BUILDING TOTAL GROSS AREA		= 7,075 SF

US Army Corps of Engineers ®

DATE | DESCRIPTION | MARK

ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY:
DRAWN BY:
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

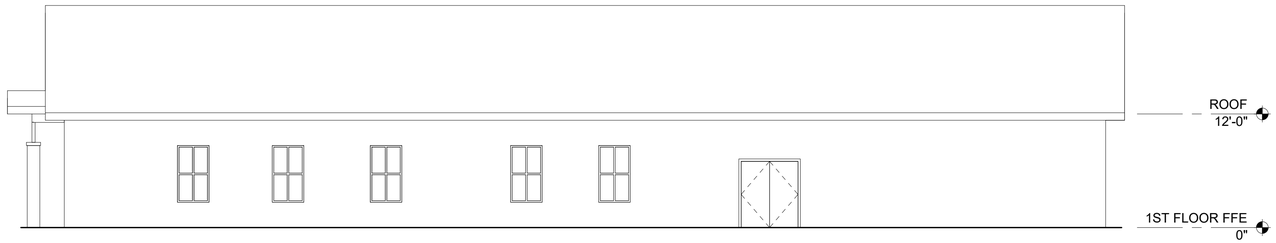
US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BATTALION HEADQUARTERS
FLOOR PLAN

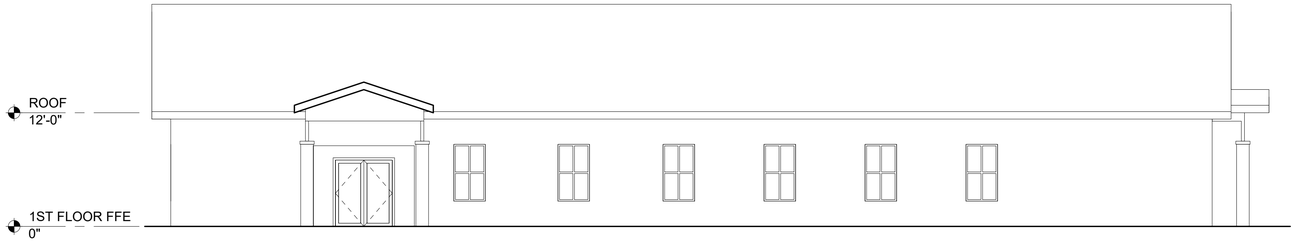
SHEET ID
BNHQ
A-004

	ELEVATION DESIGN NOTES
1	THE EXTERIOR ELEVATIONS ILLUSTRATE MASSING, NOT MANDATING PARTICULAR ARCHITECTURAL THEME OR ANY SPECIFIC MATERIALS. THE SELECTION OF MATERIALS FOR THE EXTERIOR ENVELOPE MUST BE GUIDED BY LOCAL CLIMATIC AND GEOGRAPHIC CONDITIONS, LOCAL CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS. THE EXTERIOR ENVELOPE MUST BE ANALYZED AND FURTHER DEVELOPED BY THE DOR TO CONFORM TO THE INSTALLATION ARCHITECTURAL THEME AS DESCRIBED IN THE INSTALLATION DESIGN GUIDE AND OTHER DESIGN REQUIREMENTS.
2	THE INTENT IS TO ALLOW DESIGNERS THE FLEXIBILITY IN AESTHETIC DESIGN WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE BUILDING PLAN. THERMAL PROTECTION ALONG WITH DURABLE INTERIOR AND EXTERIOR WALL SURFACES WITH APPROPRIATE AESTHETIC QUALITIES MUST BE GIVEN PRIORITY TO CREATE SUSTAINABLE AND FUNCTIONAL ARCHITECTIURE.
3	BUILDING HEIGHTS SHOWN ON THE ELEVATIONS ARE FOR ILLUSTRATION ONLY. BUILDING HEIGHTS MUST BE DETERMINED BY THE DESIGNER, MAINTAINING MIN CEILING AND CLEAR HEIGHTS INDICATED IN THE FINISH SCHEDULE IN THE DRAWINGS, AND TO PROVIDE ADEQUATE SPACE FOR UTILITIES AND STRUCTURE ABOVE FINISH CEILINGS AND ABOVE REQUIRED CLEAR HEIGHTS WHERE STRUCTURE IS EXPOSED.
4	SEE APPENDIX IN THE RFP FOR INSTALLATION'S ARCHITECTURAL THEME INCLUDING EXTERIOR COLORS AND MATERIALS.
5	WINDOWS SHOWN ARE THE MINIMUM REQUIRED. DOR MUST DETERMINE THE LARGEST FEASIBLE WINDOW CONSIDERING CLIMATE, DAY LIGHTING, AND AESTHETICS.



1 A-005 BATTALION HEADQUARTERS EXTERIOR ELEVATION

1/8" = 1'-0"



2 A-005 BATTALION HEADQUARTERS EXTERIOR ELEVATION

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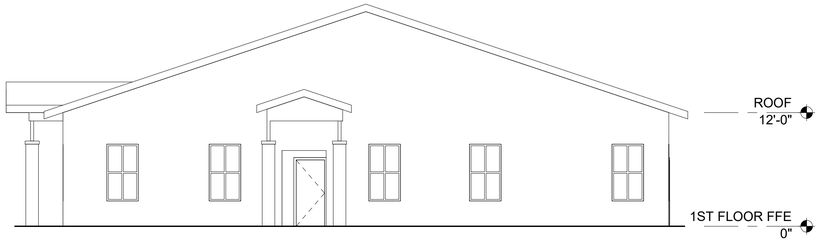

3 A-005 BATTALION HEADQUARTERS EXTERIOR ELEVATION

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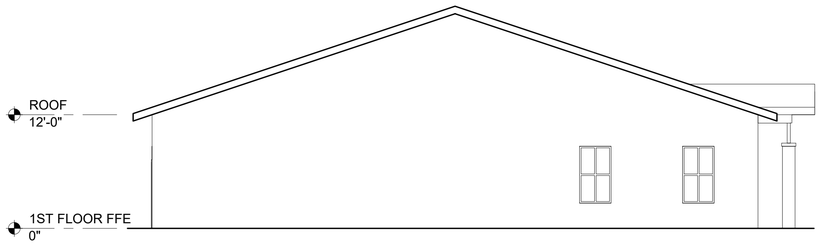

4 A-005 BATTALION HEADQUARTERS EXTERIOR ELEVATION

1/8" = 1'-0"

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BATTALION HEADQUARTERS
EXTERIOR ELEVATIONS

SHEET ID
BNHQ
A-005

US Army Corps of Engineers ®
LOUISVILLE DISTRICT

DEPARTMENT OF THE ARMY FACILITIES STANDARDIZATION PROGRAM (ORTC) STANDARD DESIGN V4.8 2-STORY BARRACKS: TRANSIENT TRAINING

INDEX OF DRAWINGS

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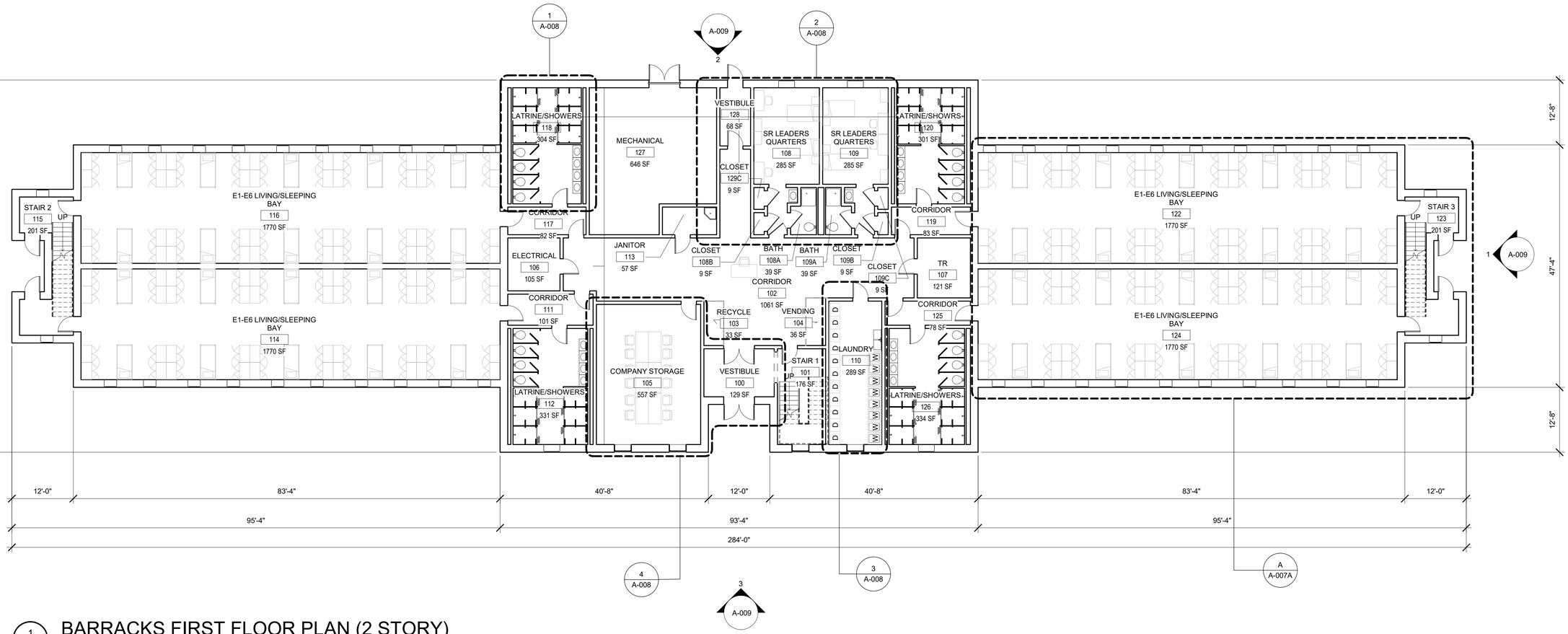
OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

BARRACKS (2 STORY)

COVER SHEET

SHEET ID
BKS2
G-006

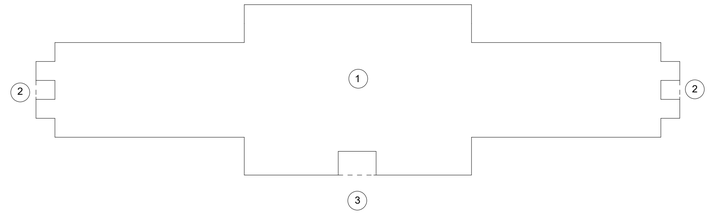


1 BARRACKS FIRST FLOOR PLAN (2 STORY)

1 A-006

3/32" = 1'-0"

AREA CALCULATIONS



FIRST FLOOR GROSS AREA CALCS

FIRST FLOOR
FULL VALUE:

1	INTERIOR SPACE		15,152 SF

HALF VALUE:

2	EXTERIOR COVERED	[(65 X 2) X 1/2] =	65 SF
3	EXTERIOR COVERED	(124 X 1/2) =	62 SF

FIRST FLOOR TOTAL GROSS AREA: 15,279 SF

BUILDING TOTAL GROSS AREA: 30,558 SF

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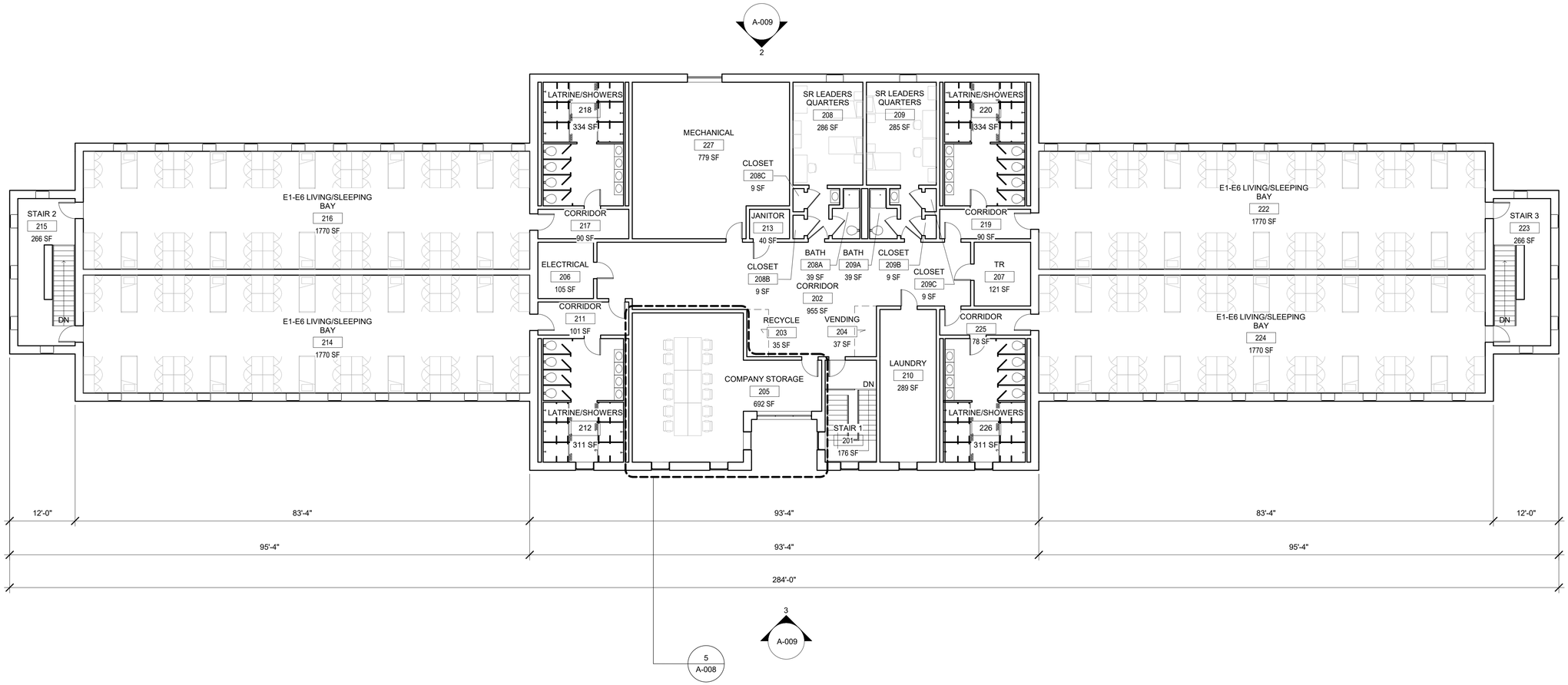
BARRACKS (2 STORY)
BARRACKS FIRST FLOOR PLAN

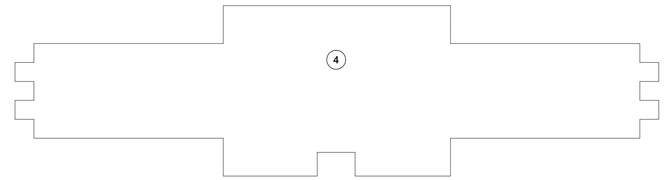
SHEET ID
BKS2
A-006



1 A-007 BARRACKS SECOND FLOOR PLAN (2 STORY)

3/32" = 1'-0"

AREA CALCULATIONS



SECOND FLOOR GROSS AREA CALCS

SECOND FLOOR FULL VALUE:

4	INTERIOR SPACE	15,279 SF
	SECOND FLOOR TOTAL GROSS AREA:	15,279 SF

FIRST FLOOR TOTAL:	15,279 SF
SECOND FLOOR TOTAL:	15,279 SF
BUILDING TOTAL GROSS AREA:	30,558 SF

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

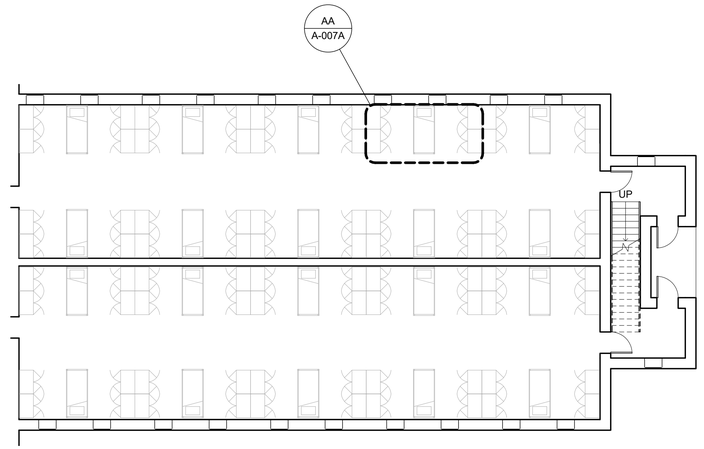
DESIGNED BY:
DRAWN BY: LJG/JJS
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (2 STORY)
BARRACKS SECOND FLOOR PLAN

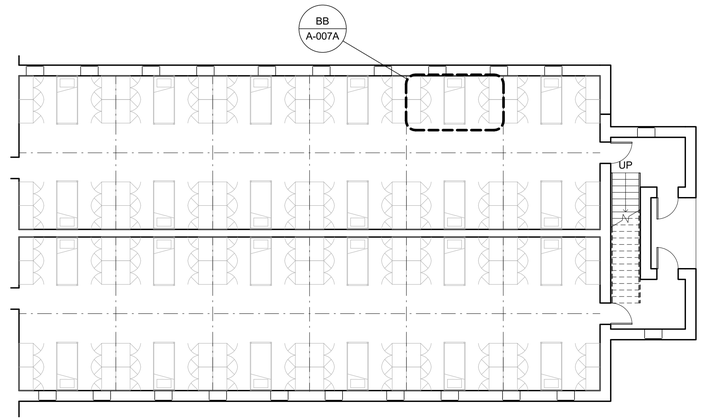
SHEET ID
BKS2
A-007



A
A-007A

SLEEPING BAY FURNITURE PLAN OPTION A

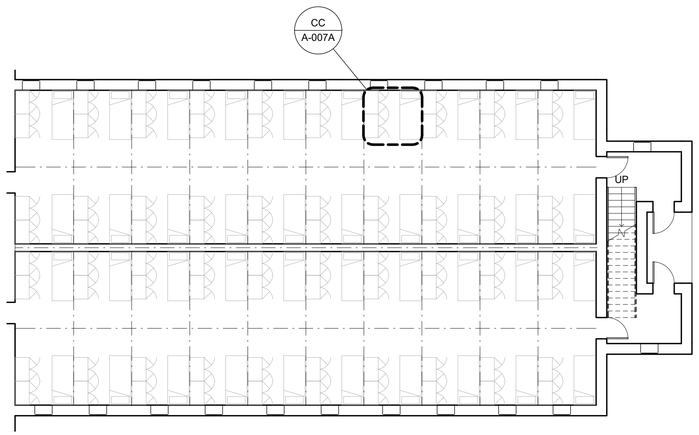
3/32" = 1'-0"



B
A-007A

SLEEPING BAY FURNITURE PLAN OPTION B

3/32" = 1'-0"



C
A-007A

SLEEPING BAY FURNITURE PLAN OPTION C

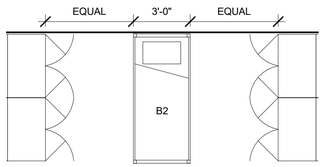
3/32" = 1'-0"

GENERAL SHEET NOTES

1	OPTIONS A THRU F ARE FURNITURE OPTIONS ONLY, GFGI, NOT CHANGING THE FLOOR PLAN.
2	THE DESIGNER MUST DEVELOP THE FF&E PACKAGE FOR THE SPECIFIC PROJECT USING FURNITURE OPTIONS CHOSEN BY THE INSTALLATION.
3	UTILITIES INCLUDING POWER, DATA, AND VOICE MUST BE PROVIDED AND LOCATED FOR THE FURNITURE OPTIONS CHOSEN.
4	OPTIONS D THRU F ALLOW THE OPEN BAYS TO BE USED FOR COMPANY LEVEL FUNCTIONS INCLUDING CLASSROOMS, ADMINISTRATION, STORAGE, AND SERVING PREPACKAGES MEALS.
5	SINCE FURNITURE OPTIONS ARE FLEXIBLE AND CAN BE CHANGED AS ADDITIONAL ORTC FACILITY TYPES ARE CONSTRUCTED, FORETHOUGHT IS REQUIRED AS HOW TO POSITION UTILITIES AND HOW TO ACCOMMODATE HVAC REQUIREMENTS. FOR EXAMPLE, THE INSTALLATION MAY NEED TO USE THE SPACE FOR ADMIN WITH THE INTENTION OF CHANGING TO SLEEPING BAYS ONCE A COMPANY HEADQUARTERS IS CONSTRUCTED. IN THIS CASE, THE DESIGNER MUST CONSIDER UTILITY LOCATIONS AND VENTILATION FOR ADMIN AS WELL AS CONVERSION TO SLEEPING QUARTERS.

TWO-STORY BARRACKS BED CAPACITY

A	FURNITURE OPTION A (BUNKBEDS) 20PN / BAY X 8 BAYS = 160PN + 8 SENIOR LDRS = 168 PN TOTAL FURNITURE OPTION A (BUNKBEDS) 20PN / BAY X 8 BAYS = 160PN + 8 SENIOR LDRS = 168 PN TOTAL
B	FURNITURE OPTION B (BUNKBEDS) 24PN / BAY X 8 BAYS = 192PN + 8 SENIOR LDRS = 200 PN TOTAL
C	FURNITURE OPTION C (SINGLE BEDS) 20PN / BAY X 8 BAYS = 160PN + 8 SENIOR LDRS = 168 PN TOTAL



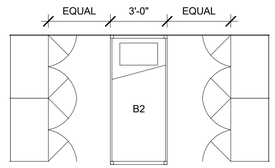
(E1-E6) BED SPACE (BUNKED BEDS)

1. PROVIDE MINIMUM 90 NET SQ FT PER OCCUPANT. AREA INCLUDES CIRCULATION.
2. (1) B2 WHICH IS MADE UP OF TWO BUNKED BEDS W/ TOTAL DIMENSIONS OF 40" X 85" X 75" H.
3. (4) STORAGE CABINETS MINIMUM 42"W X 24"D X 78"H.

AA
A-007A

(E1-E6) BED SPACE OPTION A

1/4" = 1'-0"



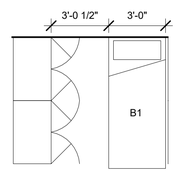
(E1-E6) BED SPACE (BUNKED BEDS)

1. PROVIDE MINIMUM 72 NET SQ FT PER OCCUPANT. AREA INCLUDES CIRCULATION.
2. (1) B2 WHICH IS MADE UP OF TWO BUNKED BEDS W/ TOTAL DIMENSIONS OF 40" X 85" X 75" H.
3. (4) STORAGE CABINETS MINIMUM 42"W X 24"D X 78"H.

BB
A-007A

(E1-E6) BED SPACE OPTION B

1/4" = 1'-0"



(E1-E6) BED SPACE (SINGLE BEDS)

1. PROVIDE MINIMUM 90 NET SQ FT PER OCCUPANT. AREA INCLUDES CIRCULATION.
2. B1 WHICH IS MADE UP OF ONE SINGLE BEDS W/ TOTAL DIMENSIONS OF 40" X 85" X 36" H.
3. (2) STORAGE CABINETS MINIMUM 42"W X 24"D X 78"H.

CC
A-007A

(E1-E6) BED SPACE OPTION C

1/4" = 1'-0"

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE:
FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

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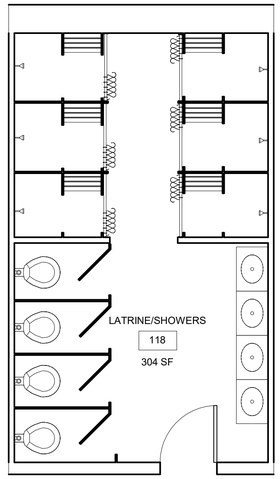
DRAWN BY: LJG/JJS
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX
STANDARD DESIGN

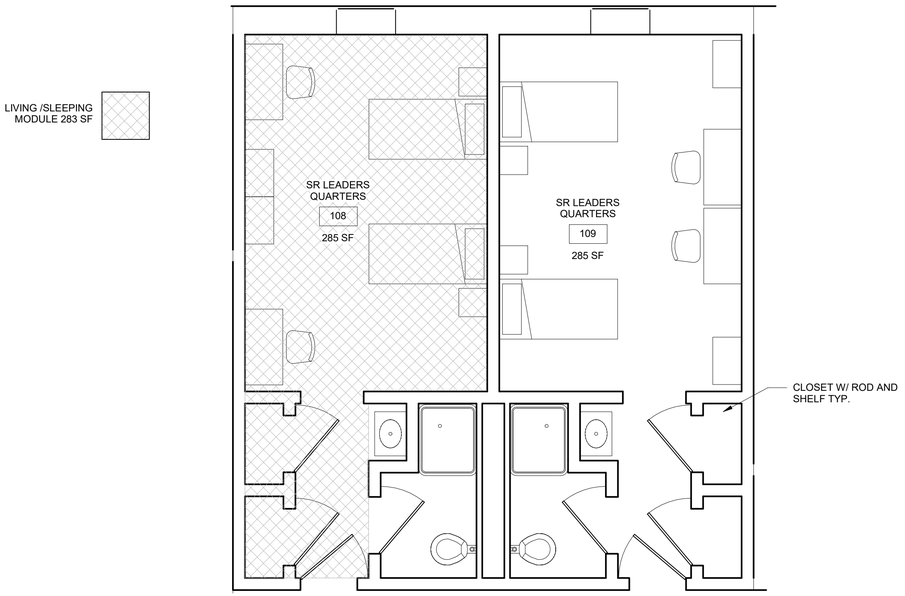
DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (2 STORY)
BARRACKS OPTIONAL FURNITURE LAYOUT

SHEET ID
BKS2
A-007A



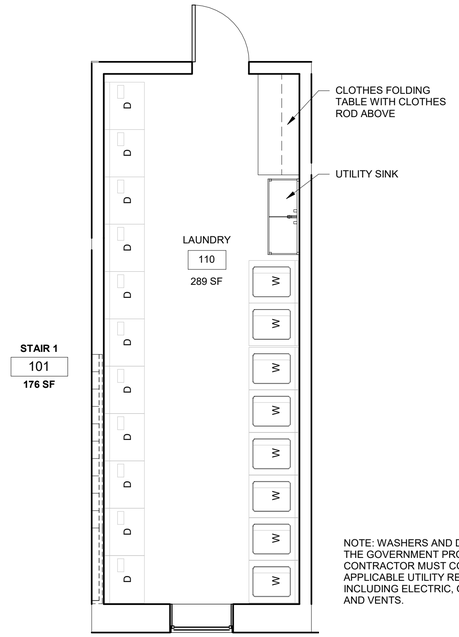
1 A-008 LATRINE / SHOWER MODULE

1/4" = 1'-0"



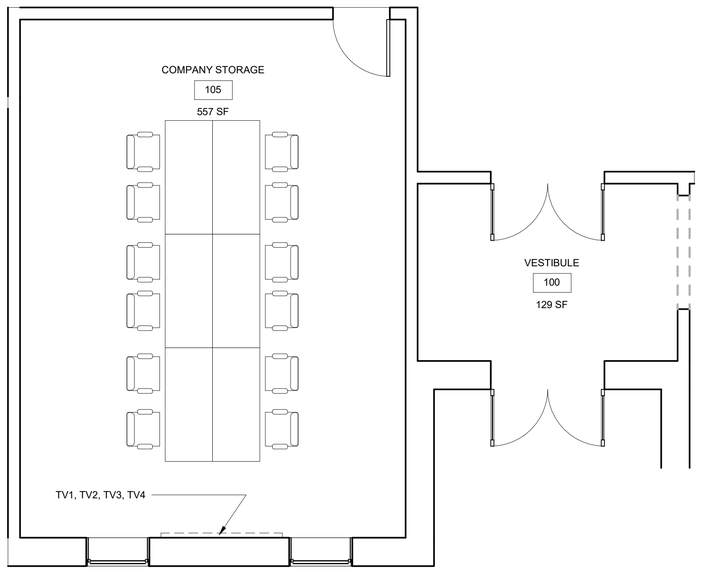
2 A-008 MODIFIED 2+2 MODULE SENIOR LEADERS QUARTERS

1/4" = 1'-0"



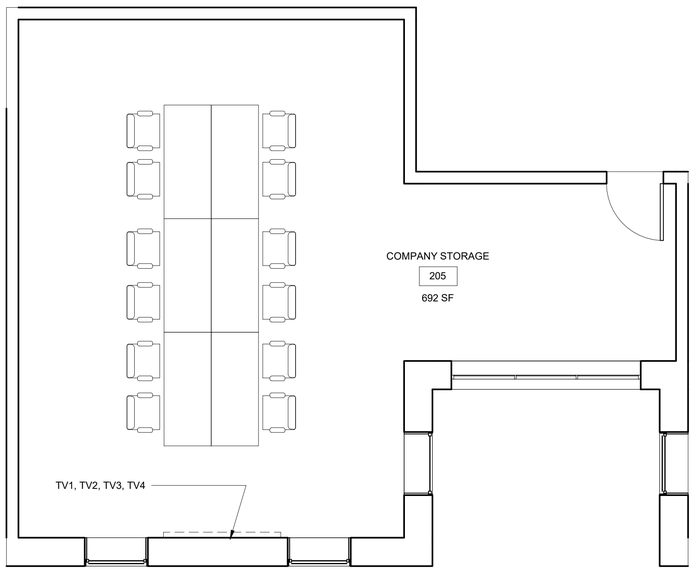
3 A-008 LAUNDRY

1/4" = 1'-0"



4 A-008 FIRST FLOOR COMPANY STORAGE

1/4" = 1'-0"



5 A-008 SECOND FLOOR COMPANY STORAGE

1/4" = 1'-0"

US Army Corps of Engineers ®

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DESIGNED BY:
DRAWN BY: LJG/JJS
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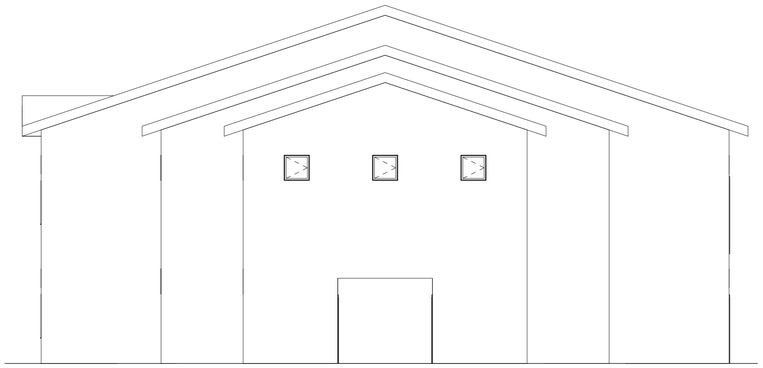
US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (2 STORY)
ENLARGED FLOOR PLANS

SHEET ID
BKS2
A-008

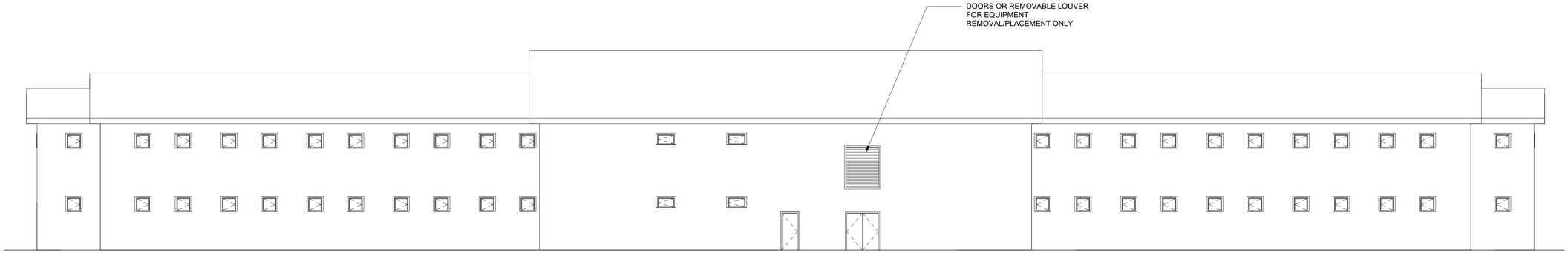
	ELEVATION DESIGN NOTES
1	THE EXTERIOR ELEVATIONS ILLUSTRATE MASSING NOT MANDATING PARTICULAR ARCHITECTURAL THEME OR ANY SPECIFIC MATERIALS. THE SELECTION OF MATERIALS FOR THE EXTERIOR ENVELOPE MUST BE GUIDED BY LOCAL CLIMATIC AND GEOGRAPHIC CONDITIONS, LOCAL CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS. THE EXTERIOR ENVELOPE MUST BE ANALYZED AND FURTHER DEVELOPED BY THE DOR TO CONFORM TO THE INSTALLATION ARCHITECTURAL THEME AS DESCRIBED IN THE INSTALLATION DESIGN GUIDE AND OTHER DESIGN REQUIREMENTS.
2	THE INTENT TO ALLOW DESIGNERS THE FLEXIBILITY IN AESTHETIC DESIGN WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE BUILDING PLAN. THERMAL PROTECTION ALONG WITH DURABLE INTERIOR AND EXTERIOR WALL SURFACES WITH APPROPRIATE AESTHETIC QUALITIES MUST BE GIVEN PRIORITY TO CREATE SUSTAINABLE AND FUNCTIONAL ARCHITECTURE.
3	BUILDING HEIGHTS SHOWN ON THE ELEVATIONS ARE FOR ILLUSTRATION ONLY. BUILDING HEIGHTS MUST BE DETERMINED BY THE DESIGNER, MAINTAINING MINIMUM CEILING AND CLEAR HEIGHTS INDICATED IN THE FINISH SCHEDULE IN THE DRAWINGS, AND TO PROVIDE ADEQUATE SPACE FOR UTILITIES AND STRUCTURE ABOVE FINISH CEILINGS AND ABOVE REQUIRED CLEAR HEIGHTS WHERE STRUCTURE IS EXPOSED.
4	SEE APPENDIX IN THE RFP FOR INSTALLATION'S ARCHITECTURAL THEME INCLUDING EXTERIOR COLORS AND MATERIALS.
5	WINDOWS SHOWN ARE THE MINIMUM REQUIRED. DOR MUST DETERMINE THE LARGEST FEASIBLE WINDOW CONSIDERING CLIMATE, DAY LIGHTING, AND AESTHETICS.



1 A-009

BARRACKS (2 STORY) EXTERIOR ELEVATION

1/8" = 1'-0"



2 A-009

BARRACKS (2 STORY) EXTERIOR ELEVATION

3/32" = 1'-0"

3 A-009

BARRACKS (2 STORY) EXTERIOR ELEVATION

3/32" = 1'-0"

US Army Corps of Engineers ®

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DESIGNED BY:
DRAWN BY: LJG/JJS
CHECKED BY: JJS
SUBMITTED BY:
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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (2 STORY)
EXTERIOR ELEVATIONS

SHEET ID
BKS2
A-009

FINISH SCHEDULE

ROOM NO.	ROOM NAME	FINISH				MIN CLNG HEIGHT	NET SF	MIN. STC	NOTES
		CLNG	FLOOR	BASE	WALL				
COMMONS									
100	VESTIBULE	MRG	CONC	--	CMU	9'-0"	129 SF	---	
101	STAIR 1	NOTE 2	CONC	--	CMU	8'-0"	176 SF	---	
102	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	1061 SF	---	
103	RECYCLE	NOTE 2	CONC	--	CMU	8'-0"	33 SF	---	
104	VENDING	NOTE 2	CONC	--	CMU	8'-0"	36 SF	---	
105	COMPANY STORAGE	NOTE 2	CONC	--	CMU	9'-0"	557 SF	---	USE DETERMINED BY UNIT (STORAGE, CONFERENCE, ADMIN, TV VIEWING, ETC.)
110	LAUNDRY	NOTE 2	CONC	--	CMU	9'-0"	289 SF	50	
111	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	101 SF	---	
112	LATRINE/SHOWERS	MRG	CONC	--	CMU	9'-0"	331 SF	50	
113	JANITOR	NOTE 2	CONC	--	CMU	8'-0"	57 SF	---	
115	STAIR 2	NOTE 2	CONC	--	CMU	8'-0"	201 SF	---	
117	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	82 SF	---	
118	LATRINE/SHOWERS	MRG	CONC	--	CMU	9'-0"	304 SF	50	
119	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	83 SF	---	
120	LATRINE/SHOWRS	MRG	CONC	--	CMU	9'-0"	301 SF	50	
123	STAIR 3	NOTE 2	CONC	--	CMU	8'-0"	201 SF	---	
125	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	78 SF	---	
126	LATRINE/SHOWERS	MRG	CONC	--	CMU	9'-0"	334 SF	50	
128	VESTIBULE	MRG	CONC	--	CMU	9'-0"	68 SF	---	
201	STAIR 1	NOTE 2	CONC	--	CMU	8'-0"	176 SF	---	
202	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	955 SF	---	
203	RECYCLE	NOTE 2	CONC	--	CMU	8'-0"	35 SF	---	
204	VENDING	NOTE 2	CONC	--	CMU	8'-0"	37 SF	---	
205	COMPANY STORAGE	NOTE 2	CONC	--	CMU	9'-0"	692 SF	---	USE DETERMINED BY UNIT (STORAGE, CONFERENCE, ADMIN, TV VIEWING, ETC.)
210	LAUNDRY	NOTE 2	CONC	--	CMU	9'-0"	289 SF	50	
211	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	101 SF	---	
212	LATRINE/SHOWERS	MRG	CONC	--	CMU	9'-0"	311 SF	50	
213	JANITOR	NOTE 2	CONC	--	CMU	8'-0"	40 SF	---	
215	STAIR 2	NOTE 2	CONC	--	CMU	8'-0"	266 SF	---	
217	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	90 SF	---	
218	LATRINE/SHOWERS	MRG	CONC	--	CMU	9'-0"	334 SF	50	
219	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	90 SF	---	
220	LATRINE/SHOWERS	MRG	CONC	--	CMU	9'-0"	334 SF	50	
223	STAIR 3	NOTE 2	CONC	--	CMU	8'-0"	266 SF	---	
225	CORRIDOR	NOTE 2	CONC	--	CMU	8'-0"	78 SF	---	
226	LATRINE/SHOWERS	MRG	CONC	--	CMU	9'-0"	311 SF	50	
E7-E8 MODULE									
108	SR LEADERS QUARTERS	NOTE 2	CONC	--	CMU	8'-0"	285 SF	50	
108A	BATH	MRG	CONC	--	CMU	8'-0"	39 SF	50	
108B	CLOSET	NOTE 2	CONC	--	CMU	8'-0"	9 SF	---	
109	SR LEADERS QUARTERS	NOTE 2	CONC	--	CMU	8'-0"	285 SF	50	
109A	BATH	MRG	CONC	--	CMU	8'-0"	39 SF	50	
109B	CLOSET	NOTE 2	CONC	--	CMU	8'-0"	9 SF	---	
109C	CLOSET	NOTE 2	CONC	--	CMU	8'-0"	9 SF	---	
129C	CLOSET	NOTE 2	CONC	--	CMU	8'-0"	9 SF	---	
208	SR LEADERS QUARTERS	NOTE 2	CONC	--	CMU	8'-0"	286 SF	50	
208A	BATH	MRG	CONC	--	CMU	8'-0"	39 SF	50	
208B	CLOSET	NOTE 2	CONC	--	CMU	8'-0"	9 SF	---	
208C	CLOSET	NOTE 2	CONC	--	CMU	8'-0"	9 SF	---	
209	SR LEADERS QUARTERS	NOTE 2	CONC	--	CMU	8'-0"	285 SF	50	
209A	BATH	MRG	CONC	--	CMU	8'-0"	39 SF	50	
209B	CLOSET	NOTE 2	CONC	--	CMU	8'-0"	9 SF	---	
209C	CLOSET	NOTE 2	CONC	--	CMU	8'-0"	9 SF	---	
OPEN BAY									
114	E1-E6 LIVING/SLEEPING BAY	NOTE 2	CONC	--	CMU	10'-0"	1770 SF	50	
116	E1-E6 LIVING/SLEEPING BAY	NOTE 2	CONC	--	CMU	10'-0"	1770 SF	50	
122	E1-E6 LIVING/SLEEPING BAY	NOTE 2	CONC	--	CMU	10'-0"	1770 SF	50	
124	E1-E6 LIVING/SLEEPING BAY	NOTE 2	CONC	--	CMU	10'-0"	1770 SF	50	
214	E1-E6 LIVING/SLEEPING BAY	NOTE 2	CONC	--	CMU	10'-0"	1770 SF	50	
216	E1-E6 LIVING/SLEEPING BAY	NOTE 2	CONC	--	CMU	10'-0"	1770 SF	50	
222	E1-E6 LIVING/SLEEPING BAY	NOTE 2	CONC	--	CMU	10'-0"	1770 SF	50	
224	E1-E6 LIVING/SLEEPING BAY	NOTE 2	CONC	--	CMU	10'-0"	1770 SF	50	
SERVICE									
106	ELECTRICAL	--	CONC	--	CMU	8'-0"	105 SF	---	
107	TR	--	CONC	--	CMU	8'-0"	121 SF	---	MIN 8' X10' ROOM ON 1ST FLOOR MIN 6X8 ROOM ON UPPER
127	MECHANICAL	--	CONC	--	CMU	10'-0"	646 SF	50	
206	ELECTRICAL	--	CONC	--	CMU	8'-0"	105 SF	---	
207	TR	--	CONC	--	CMU	8'-0"	121 SF	---	MIN 8' X10' ROOM ON 1ST FLOOR MIN 6X8 ROOM ON UPPER
227	MECHANICAL	--	CONC	--	CMU	10'-0"	779 SF	50	

FINISH LEGEND

ACT	2'-0" X 2'-0" ACOUSTIC CEILING TILE
CMU	PAINTED CONCRETE MASONRY UNIT
CONC	SEALED CONCRETE
EXP	EXPOSED PAINTED STRUCTURE
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD PAINTED
RB	RUBBER BASE

FINISH NOTES

1	ROOM FINISH SHOWN ARE MINIMUM REQUIRED.
2	PROPOSED NET SF SHOWN IS AS REFLECTED IN THE STANDARD FLOOR PLANS. FLOOR AREAS MAY CHANGE TO ALLOW FOR ADJUSTMENTS DUE TO STRUCTURAL, UTILITIES, AND CODE REQUIREMENTS, WITHOUT AFFECTING FUNCTION.
3	WHERE WIRE MESH PARTITIONS ARE REQUIRED, PROVIDE SECURED ENCLOSURE BY EITHER ATTACHING TO BUILDING STRUCTURE OR ADJACENT WALL/CEILING.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (2 STORY)
FINISH SCHEDULE

SHEET ID
BKS2
A-010

US Army Corps of Engineers ®
LOUISVILLE DISTRICT

DEPARTMENT OF THE ARMY
FACILITIES STANDARDIZATION PROGRAM
(ORTC) STANDARD DESIGN V4.8
4- STORY BARRACKS: TRANSIENT TRAINING

INDEX OF DRAWINGS

ADAPTATION OF THE STANDARD DESIGN:

THE GENERAL ARRANGEMENT OF SPACES AND THE RELATIONSHIP OF FUNCTIONAL GROUPS TO ONE ANOTHER ARE MANDATORY. MINOR VARIATIONS IN THE BASIC DESIGN FORMS FOR THE BUILDING SHOWN IN THIS STANDARD ARE PERMISSIBLE AS DETERMINED BY THE CENTER OF STANDARDIZATION (COS).

MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS ARE ENCOURAGED; HOWEVER, THERE MUST BE NO LOSS IN DURABILITY DUE TO THE USE OF THESE SYSTEMS AS DETERMINED BY THE COS AND AS COMPARED TO THE TYPICAL CONSTRUCTION SYSTEMS AND FINISHES INDICATED WITHIN THIS PACKAGE.

MATERIAL SELECTIONS, EXTERIOR/INTERIOR DESIGN DETAILS, MECHANICAL, ELECTRICAL, AND STRUCTURAL SYSTEMS DESIGN MAY VARY IN RESPONSE TO LOCAL CLIMATIC AND GEOGRAPHICAL CONDITIONS, LOCAL CONSTRUCTION PRACTICES, AVAILABILITY OF CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS.

THE STANDARD DESIGN REQUIREMENTS AND THE INSTALLATION ARCHITECTURAL THEME MUST BE ANALYZED BY THE INSTALLATION IN CONJUNCTION WITH THE DESIGN AGENT TO ASSURE CONFORMANCE.

BUILDING ELEVATIONS SHOWN ILLUSTRATE POSSIBLE DESIGN SOLUTIONS AND ARE NOT MANDATED. THE INTENT IS TO ALLOW DESIGNERS FLEXIBILITY CONSISTENT WITH THE INSTALLATION DESIGN GUIDE, WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE FACILITY TYPE.

THE BATTALION HEADQUARTERS, BRIGADE HEADQUARTERS, AND DINING FACILITY MUST BE ACCESSIBLE TO PHYSICALLY DISABLED PERSONS, IN ACCORDANCE WITH THE ARCHITECTURAL BARRIERS ACT (ABA). ALL OTHER FACILITIES ARE INTENDED FOR USE BY ABLE BODIED MILITARY PERSONNEL ONLY AND, ARE NOT REQUIRED TO MEET HANDICAPPED ACCESSIBILITY CODE REQUIREMENTS.

DRAWING DISCLAIMER:

THE CONCEPTUAL PLANS INCLUDED IN THIS PACKAGE ARE SUBJECT TO CHANGE WITHOUT NOTICE. DESIGNERS AND OTHER STAKE HOLDERS ARE HEREBY DIRECTED TO ENSURE THEY HOLD THE LATEST UPDATE. CONTACT THE LOUISVILLE DISTRICT CENTER OF STANDARDIZATION (COS) FOR ANY INFORMATION REGARDING THE STANDARDS.
SEE WEBSITE: https://mrsi.erdc.dren.mil/cos/lrl/ortc/

DATED: VERSION 4.7, FEBRUARY 2021

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS
TRAINING COMPLEX
STANDARD DESIGN

DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

BARRACKS (4 STORY)

COVER SHEET

SHEET ID
BKS4
G-011

SHEET OF 0

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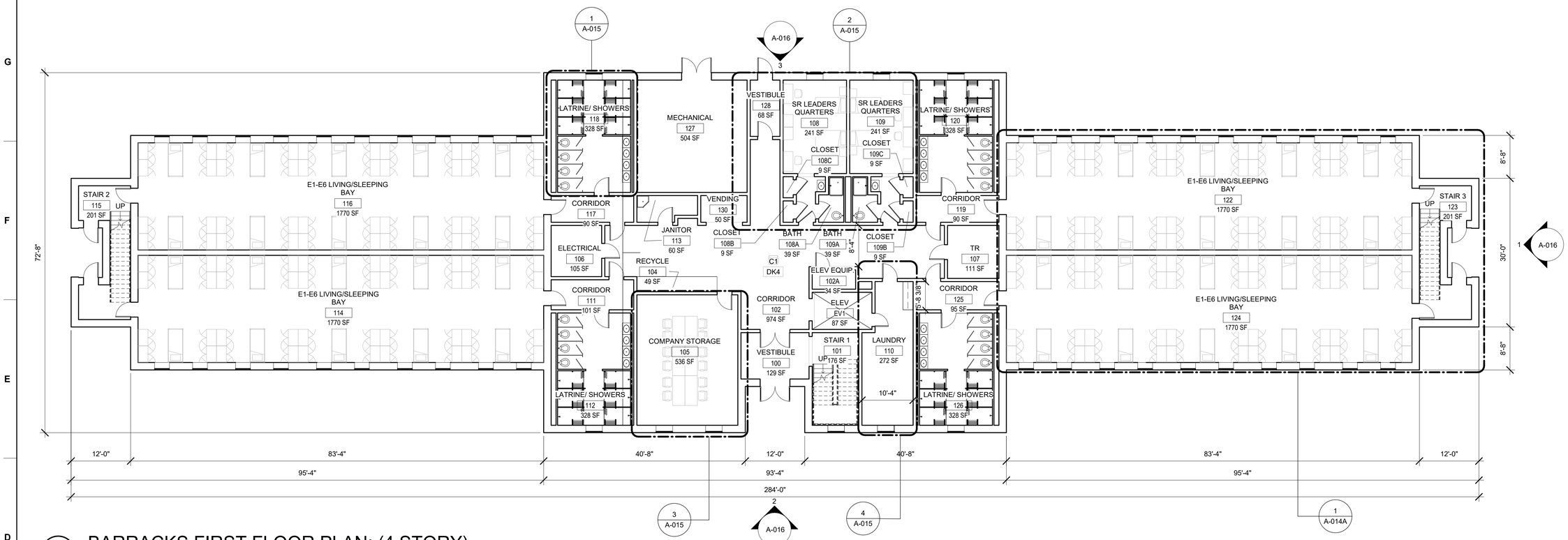
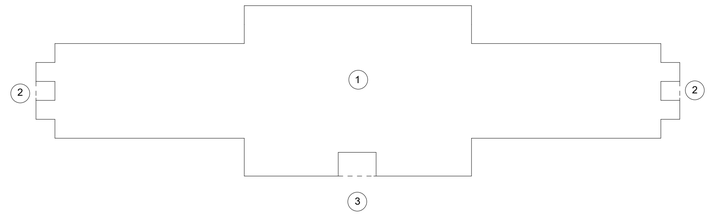


1 A-011

BARRACKS FIRST FLOOR PLAN: (4 STORY)

3/32" = 1'-0"

AREA CALCULATIONS



FIRST FLOOR GROSS AREA CALCS

FIRST FLOOR
FULL VALUE:

1	INTERIOR SPACE		15,152 SF

HALF VALUE:

2	EXTERIOR COVERED	[(65 X 2) X 1/2] =	65 SF
3	EXTERIOR COVERED	(124 X 1/2) =	62 SF

FIRST FLOOR TOTAL GROSS AREA: 15,279 SF

BUILDING TOTAL GROSS AREA: 61,116 SF

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

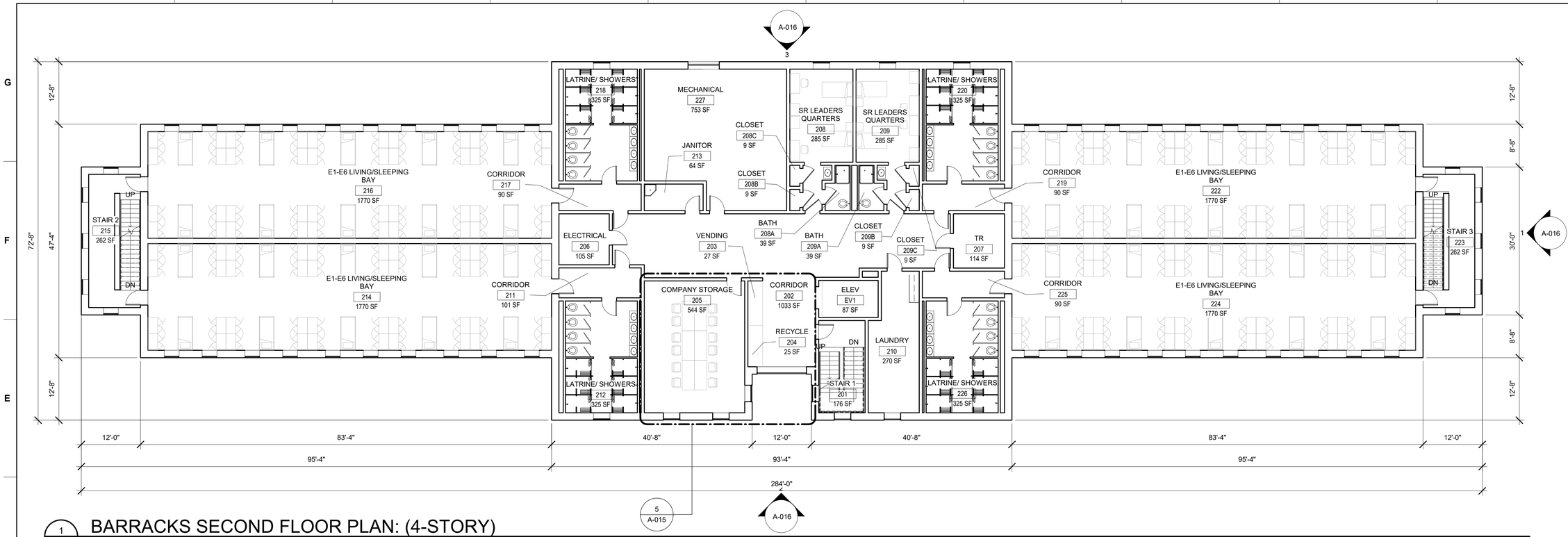
DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (4 STORY)
FIRST FLOOR PLAN

SHEET ID
BKS4
A-011

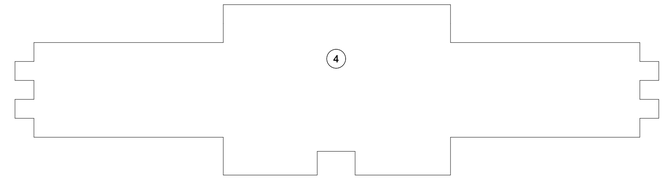


1 A-012

BARRACKS SECOND FLOOR PLAN: (4-STORY)

3/32" = 1'-0"

AREA CALCULATIONS



SECOND FLOOR GROSS AREA CALCS

SECOND FLOOR FULL VALUE:

4	INTERIOR SPACE	15,279 SF
	SECOND FLOOR TOTAL GROSS AREA:	15,279 SF

FIRST FLOOR TOTAL:	15,279 SF
SECOND FLOOR TOTAL:	15,279 SF
BUILDING TOTAL GROSS AREA:	61,116 SF

US Army Corps of Engineers ®

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DESIGNED BY:
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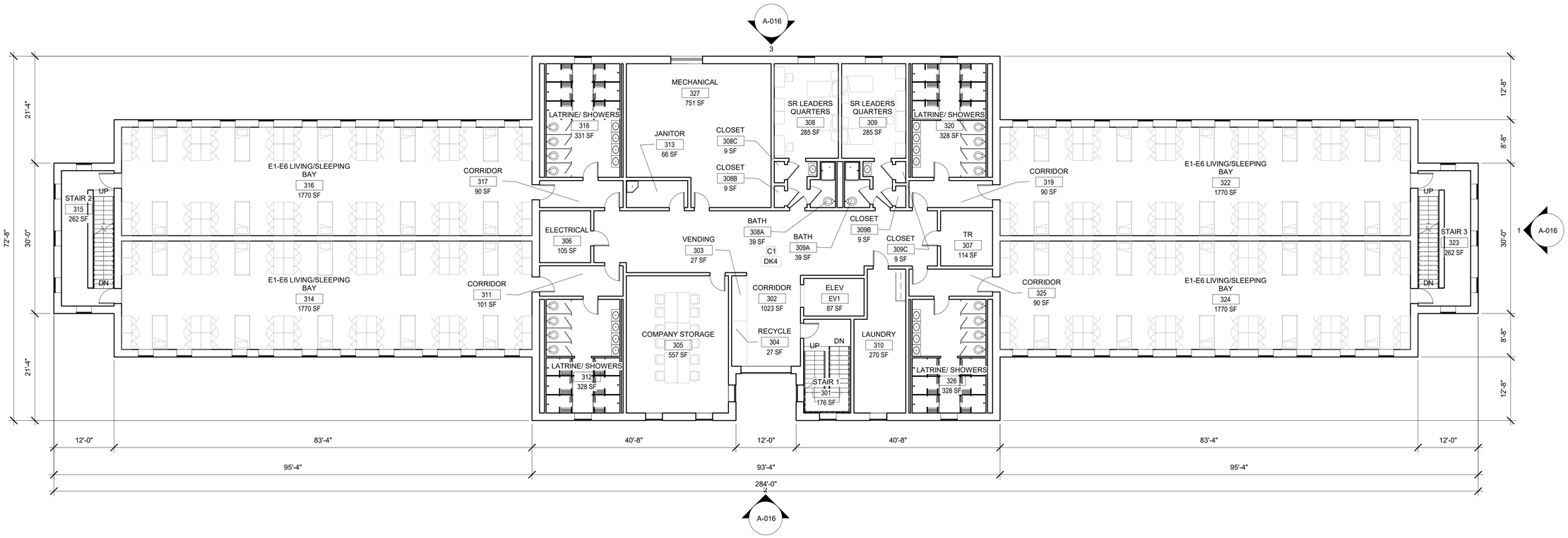
US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (4 STORY)
SECOND FLOOR PLAN

SHEET ID
BKS4
A-012

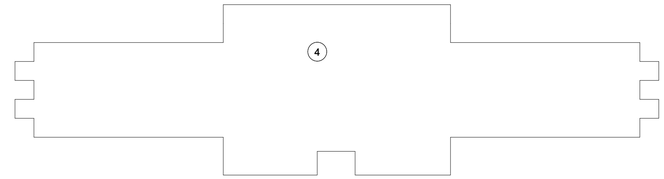


1 A-013

BARRACKS THIRD FLOOR PLAN: (4 STORY)

3/32" = 1'-0"

AREA CALCULATIONS



THIRD FLOOR FULL VALUE:

THIRD FLOOR GROSS AREA CALCS

4	INTERIOR SPACE	15,279 SF
	THIRD FLOOR TOTAL GROSS AREA:	15,279 SF

FIRST FLOOR TOTAL:	15,279 SF
SECOND FLOOR TOTAL:	15,279 SF
THIRD FLOOR TOTAL:	15,279 SF
BUILDING TOTAL GROSS AREA:	61,116 SF

US Army Corps of Engineers ®

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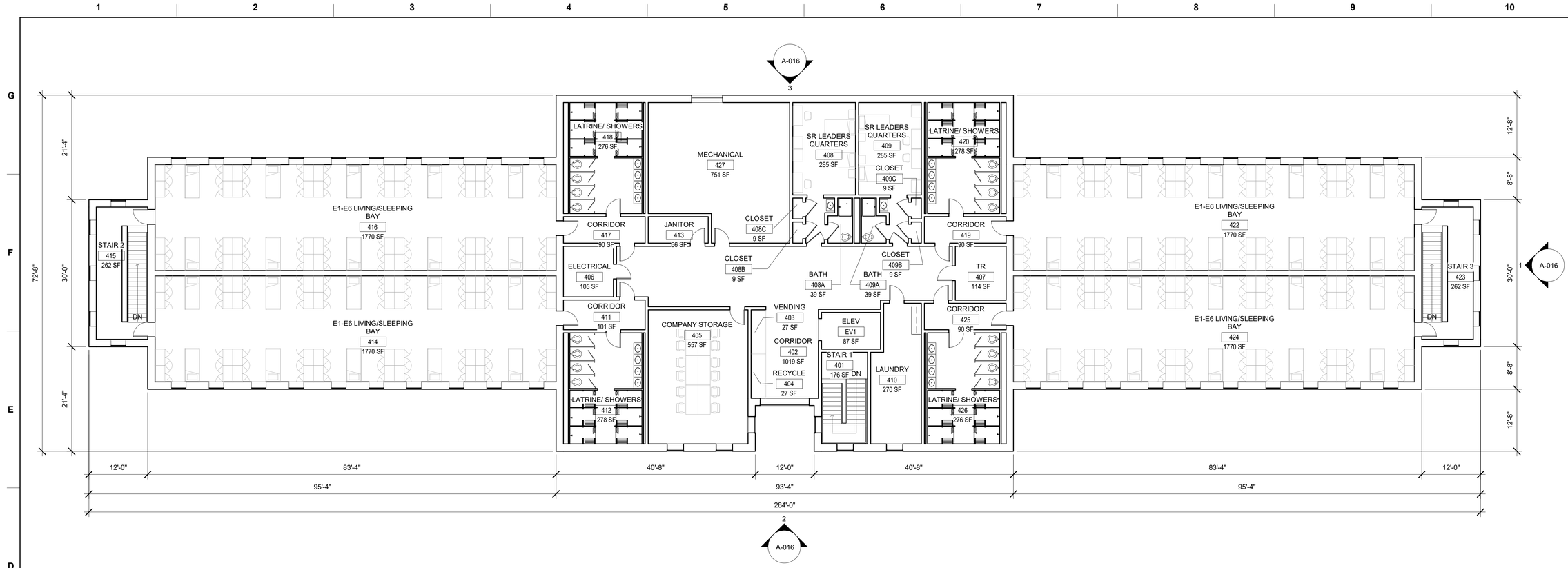
US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (4 STORY)
THIRD FLOOR PLAN

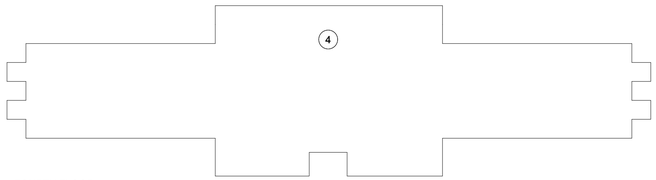
SHEET ID
BKS4
A-013



BARRACKS FOURTH FLOOR PLAN: (4 STORY)

1 / A-014 — 3/32" = 1'-0"

AREA CALCULATIONS



FOURTH FLOOR
FULL VALUE:

		FOURTH FLOOR GROSS AREA CALCS	
4	INTERIOR SPACE		15,279 SF
		FOURTH FLOOR TOTAL GROSS AREA:	15,279 SF
	FIRST FLOOR TOTAL:		15,279 SF
	SECOND FLOOR TOTAL:		15,279 SF
	THIRD FLOOR TOTAL:		15,279 SF
	FOURTH FLOOR TOTAL:		15,279 SF
		BUILDING TOTAL GROSS AREA:	61,116 SF

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

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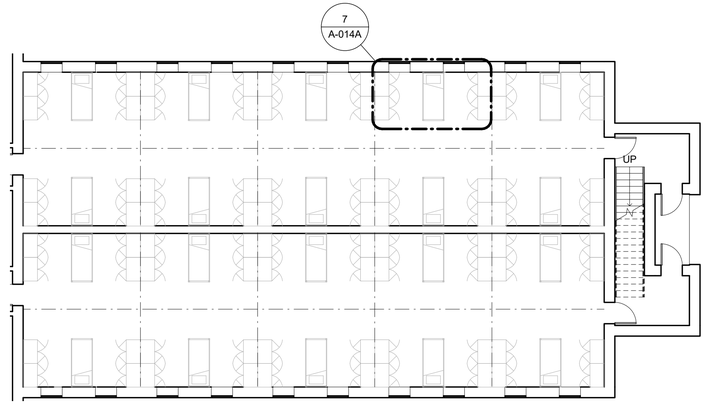
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (4 STORY)
FOURTH FLOOR PLAN

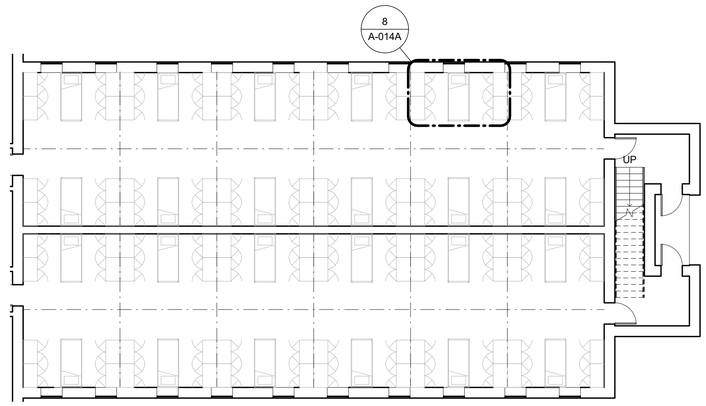
SHEET ID
BKS4
A-014



1 A-014A

SLEEPING BAY FURNITURE PLAN OPTION A

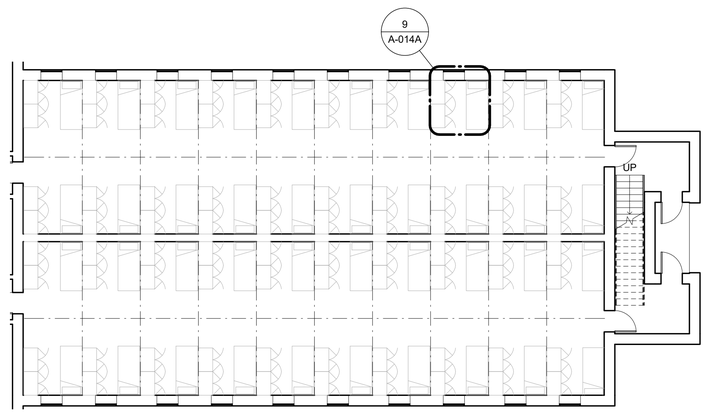
3/32" = 1'-0"



2 A-014A

SLEEPING BAY FURNITURE PLAN OPTION B

3/32" = 1'-0"



3 A-014A

SLEEPING BAY FURNITURE PLAN OPTION C

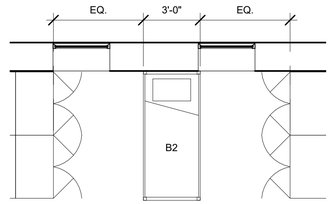
3/32" = 1'-0"

GENERAL SHEET NOTES

1	OPTIONS A THRU F ARE FURNITURE OPTIONS ONLY, GFGI, NOT CHANGING THE FLOOR PLAN.
2	THE DESIGNER MUST DEVELOP THE FF&E PACKAGE FOR THE SPECIFIC PROJECT USING FURNITURE OPTIONS CHOSEN BY THE INSTALLATION.
3	UTILITIES INCLUDING POWER, DATA, AND VOICE MUST BE PROVIDED AND LOCATED FOR THE FURNITURE OPTIONS CHOSEN.
4	OPTIONS D THRU F ALLOW THE OPEN BAYS TO BE USED FOR COMPANY LEVEL FUNCTIONS INCLUDING CLASSROOMS, ADMINISTRATION, STORAGE, AND SERVING PREPACKAGES MEALS.
5	SINCE FURNITURE OPTIONS ARE FLEXIBLE AND CAN BE CHANGED AS ADDITIONAL ORTC FACILITY TYPES ARE CONSTRUCTED, FORETHOUGHT IS REQUIRED AS HOW TO POSITION UTILITIES AND HOW TO ACCOMMODATE HVAC REQUIREMENTS. FOR EXAMPLE, THE INSTALLATION MAY NEED TO USE THE SPACE FOR ADMIN WITH THE INTENTION OF CHANGING TO SLEEPING BAYS ONCE A COMPANY HQS IS CONSTRUCTED. IN THIS CASE, THE DESIGNER MUST CONSIDER UTILITY LOCATIONS AND VENTILATION FOR ADMIN AS WELL AS CONVERSION TO SLEEPING QUARTERS.

BARRACKS BED CAPACITY

A	FURNITURE OPTION A (BUNKBEDS) 20PN / BAY X 16 BAYS = 320PN + 16 SENIOR LDRS = 336PN TOTAL
B	FURNITURE OPTION B (BUNKBEDS) 24PN / BAY X 16 BAYS = 384PN + 16 SENIOR LDRS = 400PN TOTAL
C	FURNITURE OPTION C (SINGLE BEDS) 20PN / BAY X 16 BAYS = 320PN + 16 SENIOR LDRS = 336PN TOTAL



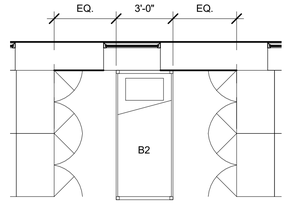
(E1-E6) BED SPACE (BUNKED BEDS)

1. PROVIDE MINIMUM 90 NET SQ FT PER OCCUPANT. AREA INCLUDES CIRCULATION.
2. (1) B2 WHICH IS MADE UP OF TWO BUNKED BEDS W/ TOTAL DIMENSIONS OF 40" X 85" X 75" H.
3. (4) STORAGE CABINETS MINIMUM 42"W X 24"D X 78"H.

7 A-014A

(E1-E6) BED SPACE OPTION A

1/4" = 1'-0"



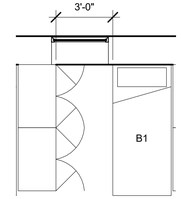
(E1-E6) BED SPACE (BUNKED BEDS)

1. PROVIDE MINIMUM 72 NET SQ FT PER OCCUPANT. AREA INCLUDES CIRCULATION.
2. (1) B2 WHICH IS MADE UP OF TWO BUNKED BEDS W/ TOTAL DIMENSIONS OF 40" X 85" X 75" H.
3. (4) STORAGE CABINETS MINIMUM 42"W X 24"D X 78"H.

8 A-014A

(E1-E6) BED SPACE OPTION B

1/4" = 1'-0"



(E1-E6) BED SPACE (SINGLE BEDS)

1. PROVIDE MINIMUM 90 NET SQ FT PER OCCUPANT. AREA INCLUDES CIRCULATION.
2. B1 WHICH IS MADE UP OF ONE SINGLE BEDS W/ TOTAL DIMENSIONS OF 40" X 85" X 36" H.
3. (2) STORAGE CABINETS MINIMUM 42"W X 24"D X 78"H.

9 A-014A

(E1-E6) BED SPACE OPTION C

1/4" = 1'-0"

US Army Corps of Engineers ®

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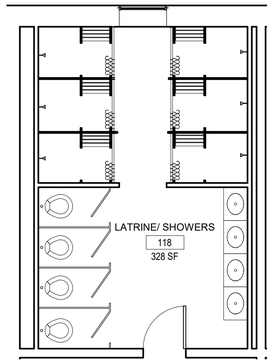
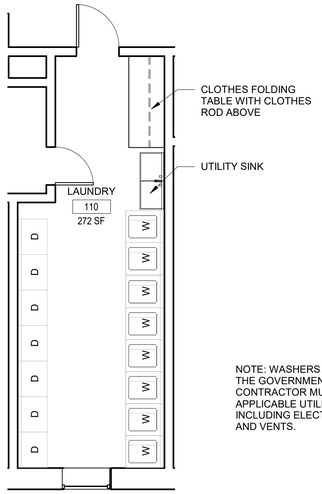
OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (4 STORY)
BARRACKS OPTIONAL FURNITURE LAYOUT

SHEET ID
BKS4
A-014A

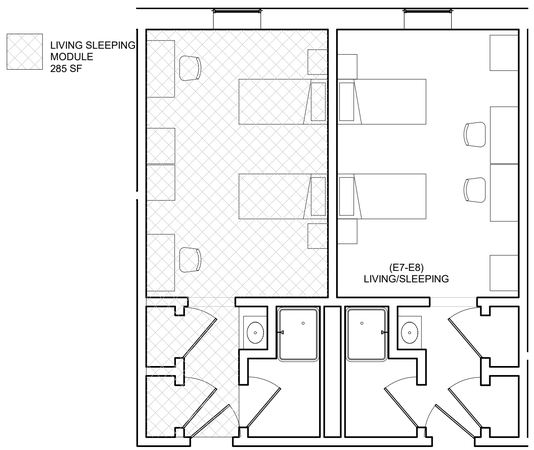


1 A-015 **LATRINE / SHOWER MODULE**
3/16" = 1'-0"

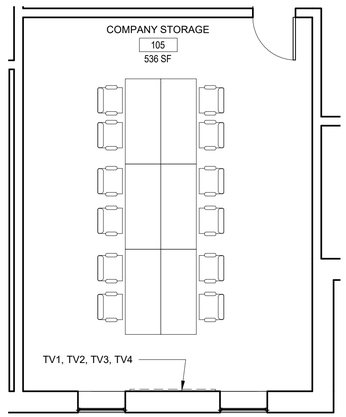


NOTE: WASHERS AND DRYERS ARE GFGI THRU THE GOVERNMENT PROVIDED FF&E PACKAGE. CONTRACTOR MUST COORDINATE & PROVIDE APPLICABLE UTILITY REQUIREMENTS INCLUDING ELECTRIC, GAS, WATER, DRAINS, AND VENTS.

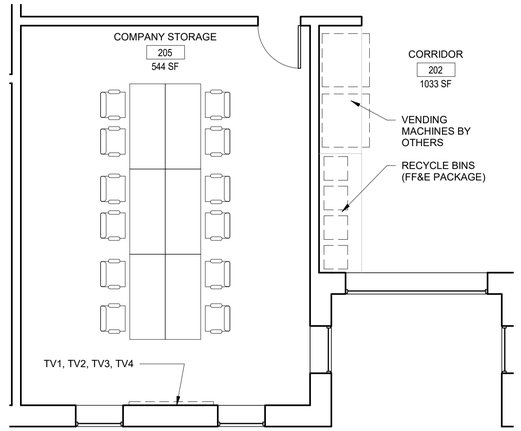
4 A-015 **LAUNDRY**
3/16" = 1'-0"



2 A-015 **MODIFIED 2+2 MODULE SENIOR LEADERS QUARTERS**
3/16" = 1'-0"



3 A-015 **FIRST FLOOR TEAM ROOM**
3/16" = 1'-0"



5 A-015 **SECOND/ THIRD/ FOURTH FLOOR TEAM ROOM**
3/16" = 1'-0"

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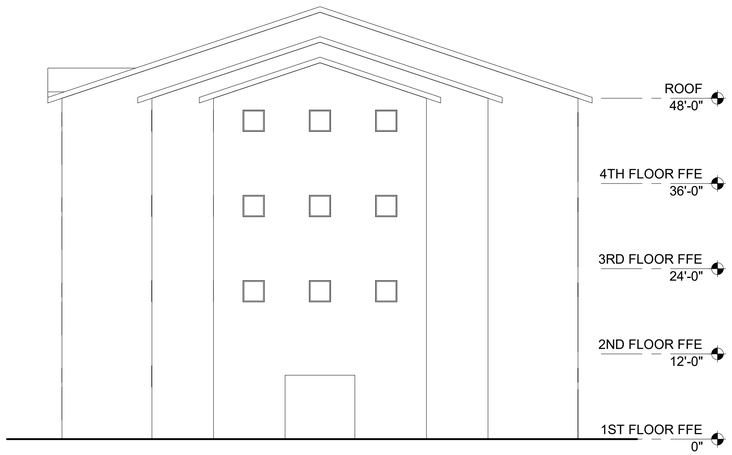
OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (4 STORY)
ENLARGED FLOOR PLANS

SHEET ID
BKS4
A-015

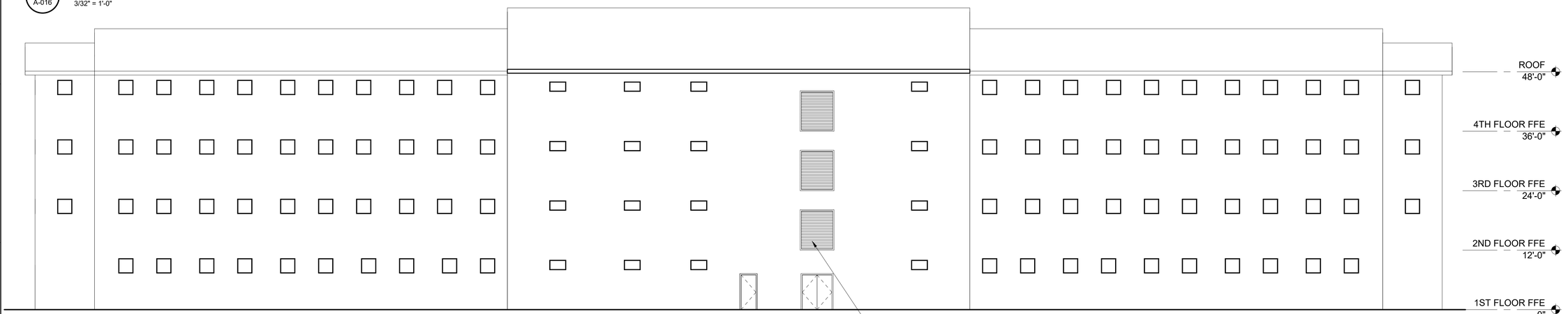


1 A-016 BARRACKS (4 STORY) EXTERIOR ELEVATION

3/32" = 1'-0"

2 A-016 BARRACKS (4 STORY) EXTERIOR ELEVATION

3/32" = 1'-0"



3 A-016 BARRACKS (4 STORY) EXTERIOR ELEVATION

3/32" = 1'-0"

ELEVATION DESIGN NOTES

1	THE EXTERIOR ELEVATIONS ILLUSTRATE MASSING, NOT MANDATING PARTICULAR ARCHITECTURAL THEME OR ANY SPECIFIC MATERIALS. THE SELECTION OF MATERIALS FOR THE EXTERIOR ENVELOPE MUST BE GUIDED BY LOCAL CLIMATIC AND GEOGRAPHIC CONDITIONS, LOCAL CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS. THE EXTERIOR ENVELOPE MUST BE ANALYZED AND FURTHER DEVELOPED BY THE DOR TO CONFORM WITH THE INSTALLATION ARCHITECTURAL THEME AS DESCRIBED IN THE INSTALLATION DESIGN GUIDE AND OTHER DESIGN REQUIREMENTS.
2	THE INTENT IS TO ALLOW DESIGNERS THE FLEXIBILITY IN AESTHETIC DESIGN WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE BUILDING PLAN. THERMAL PROTECTION ALONG WITH DURABLE INTERIOR AND EXTERIOR WALL SURFACES WITH APPROPRIATE AESTHETIC QUALITIES MUST BE GIVEN PRIORITY TO CREATE SUSTAINABLE AND FUNCTIONAL ARCHITECTURE.
3	BUILDING HEIGHTS SHOWN ON THE ELEVATIOINS ARE FOR ILLUSTRATION ONLY. BUILDING HEIGHTS MUST BE DETERMINED BY THE DESIGNER, MAINTAING MIN CEILING AND CLEAR HEIGHTS INDICATED IN THE FINISH SCHEDULE IN THE DRAWINGS, AND TO PROVIDE ADEQUATE SPACE FOR UTILITIES AND STRUCTURE ABOVE FINISH CEILINGS AND ABOVE REQUIRED CLEAR HEIGHTS WHERE STRUCTURE IS EXPOSED.
4	SEE APPENDIX IN THE RFP FOR INSTALLATION'S ARCHITECTURAL THEME INCLUDING EXTERIOR COLORS AND MATERIALS.
5	WINDOWS SHOWN ARE THE MINIMUM REQUIRED. DOR MUST DETERMINE THE LARGEST FEASIBLE WINDOW CONSIDERING CLIMATE, DAY LIGHTING, AND AESTHETICS.

US Army Corps of Engineers ®

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OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BARRACKS (4 STORY)
EXTERIOR ELEVATIONS

SHEET ID
BKS4
A-016

FINISH SCHEDULE

ROOM NO	ROOM NAME	FINISH				MIN. CLNG HEIGHT	MIN STC	NET SF	NOTES
		FL0OR	BASE	WALL	CLNG				
102A	ELEV EQUIP.							34 SF	
130	VENDING							50 SF	
COMMONS									
100	VESTIBULE	CONC	--	CMU	MRG	9'-0"	--	129 SF	
101	STAIR 1	CONC	--	CMU	NOTE 2	8'-0"	--	176 SF	
102	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	974 SF	
103	VENDING	CONC	--	CMU	NOTE 2	8'-0"	--	Not Placed	
104	RECYCLE	CONC	--	CMU	NOTE 2	8'-0"	--	49 SF	
105	COMPANY STORAGE	CONC	--	CMU	NOTE 2	9'-0"	--	536 SF	USE DETERMINED BY UNIT (STORAGE, CONFERENCE, ADMIN, TV VIEWING , ETC.)
110	LAUNDRY	CONC	--	CMU	NOTE 2	9'-0"	50	272 SF	
111	CORRIDOR	CONC		CMU	NOTE 2	8'-0"	--	101 SF	
112	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	328 SF	
113	JANITOR	CONC	--	CMU	NOTE 2	8'-0"	--	60 SF	
115	STAIR 2	CONC	--	CMU	NOTE 2	8'-0"	--	201 SF	
117	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
118	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	328 SF	
119	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
120	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	328 SF	
123	STAIR 3	CONC	--	CMU	NOTE 2	8'-0"	--	201 SF	
125	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	95 SF	
126	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	328 SF	
128	VESTIBULE	CONC	--	CMU	MRG	9'-0"	--	68 SF	
201	STAIR 1	CONC	--	CMU	NOTE 2	8'-0"	--	176 SF	
202	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	1033 SF	
203	VENDING	CONC	--	CMU	NOTE 2	8'-0"	--	27 SF	
204	RECYCLE	CONC	--	CMU	NOTE 2	8'-0"	--	25 SF	
205	COMPANY STORAGE	CONC	--	CMU	NOTE 2	9'-0"	--	544 SF	USE DETERMINED BY UNIT (STORAGE, CONFERENCE, ADMIN, TV VIEWING , ETC.)
210	LAUNDRY	CONC	--	CMU	NOTE 2	9'-0"	50	270 SF	
211	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	101 SF	
212	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	325 SF	
213	JANITOR	CONC	--	CMU	NOTE 2	8'-0"	--	64 SF	
215	STAIR 2	CONC	--	CMU	NOTE 2	8'-0"	--	262 SF	
217	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
218	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	325 SF	
219	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
220	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	325 SF	
223	STAIR 3	CONC	--	CMU	NOTE 2	8'-0"	--	262 SF	
225	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
226	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	325 SF	
301	STAIR 1	CONC	--	CMU	NOTE 2	8'-0"	--	176 SF	
302	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	1023 SF	
303	VENDING	CONC	--	CMU	NOTE 2	8'-0"	--	27 SF	
304	RECYCLE	CONC	--	CMU	NOTE 2	8'-0"	--	27 SF	
305	COMPANY STORAGE	CONC		CMU	NOTE 2	9'-0"	--	557 SF	USE DETERMINED BY UNIT (STORAGE, CONFERENCE, ADMIN, TV VIEWING , ETC.)
310	LAUNDRY	CONC	--	CMU	NOTE 2	9'-0"	50	270 SF	
311	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	101 SF	
312	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	328 SF	
313	JANITOR	CONC	--	CMU	NOTE 2	8'-0"	--	66 SF	
315	STAIR 2	CONC	--	CMU	NOTE 2	8'-0"	--	262 SF	
317	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
318	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	331 SF	
319	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
320	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	328 SF	
323	STAIR 3	CONC	--	CMU	NOTE 2	8'-0"	--	262 SF	
325	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
326	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	328 SF	
401	STAIR 1	CONC	--	CMU	NOTE 2	8'-0"	--	176 SF	
402	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	1019 SF	
403	VENDING	CONC	--	CMU	NOTE 2	8'-0"	--	27 SF	
404	RECYCLE	CONC	--	CMU	NOTE 2	8'-0"	--	27 SF	
405	COMPANY STORAGE	CONC	--	CMU	NOTE 2	9'-0"	--	557 SF	USE DETERMINED BY UNIT (STORAGE, CONFERENCE, ADMIN, TV VIEWING , ETC.)
410	LAUNDRY	CONC	--	CMU	NOTE 2	9'-0"	50	270 SF	
411	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	101 SF	
412	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	278 SF	
413	JANITOR	CONC	--	CMU	NOTE 2	8'-0"	--	66 SF	
415	STAIR 2	CONC	--	CMU	NOTE 2	8'-0"	--	262 SF	
417	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
418	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	276 SF	
419	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
420	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	278 SF	
423	STAIR 3	CONC	--	CMU	NOTE 2	8'-0"	--	262 SF	
425	CORRIDOR	CONC	--	CMU	NOTE 2	8'-0"	--	90 SF	
426	LATRINE/ SHOWERS	CONC	--	CMU	MRG	9'-0"	50	276 SF	
EV1	ELEV	PAVER	SS	SS	LGT GRID	9'-0"	--	87 SF	MIN 7'-6" CAB DEPTH
EV2	ELEV	PAVER	SS	SS	LGT GRID	9'-0"	--	Not Placed	MIN 7'-6" CAB DEPTH
EV3	ELEV	PAVER	SS	SS	LGT GRID	9'-0"	--	Not Placed	MIN 7'-6" CAB DEPTH
EV4	ELEV	PAVER	SS	SS	LGT GRID	9'-0"	--	Not Placed	MIN 7'-6" CAB DEPTH
E7-E8 MODULE									
108	SR LEADERS QUARTERS	CONC	--	CMU	NOTE 2	8'-0"	50	241 SF	
108A	BATH	CONC	--	CMU	MRG	8'-0"	50	39 SF	
108B	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
108C	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
109	SR LEADERS QUARTERS	CONC	--	CMU	NOTE 2	8'-0"	50	241 SF	
109A	BATH	CONC	--	CMU	MRG	8'-0"	50	39 SF	
109B	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
109C	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
208	SR LEADERS QUARTERS	CONC	--	CMU	NOTE 2	8'-0"	50	285 SF	
208A	BATH	CONC	--	CMU	MRG	8'-0"	50	39 SF	
208B	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
208C	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
209	SR LEADERS QUARTERS	CONC	--	CMU	NOTE 2	8'-0"	50	285 SF	
209A	BATH	CONC	--	CMU	MRG	8'-0"	50	39 SF	
209B	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
209C	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	

FINISH SCHEDULE

ROOM NO	ROOM NAME	FINISH				MIN. CLNG HEIGHT	MIN STC	NET SF	NOTES
		FL0OR	BASE	WALL	CLNG				
308	SR LEADERS QUARTERS	CONC	--	CMU	NOTE 2	8'-0"	50	285 SF	
308A	BATH	CONC	--	CMU	MRG	8'-0"	50	39 SF	
308B	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
308C	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
309	SR LEADERS QUARTERS	CONC	--	CMU	NOTE 2	8'-0"	50	285 SF	
309A	BATH	CONC	--	CMU	MRG	8'-0"	50	39 SF	
309B	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
309C	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
408	SR LEADERS QUARTERS	CONC	--	CMU	NOTE 2	8'-0"	50	285 SF	
408A	BATH	CONC	--	CMU	MRG	8'-0"	50	39 SF	
408B	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
408C	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
409	SR LEADERS QUARTERS	CONC	--	CMU	NOTE 2	8'-0"	50	285 SF	
409A	BATH	CONC	--	CMU	MRG	8'-0"	50	39 SF	
409B	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
409C	CLOSET	CONC	--	CMU	MRG	8'-0"	50	9 SF	
OPEN BAY									
114	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
116	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
122	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
124	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
214	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
216	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
222	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
224	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
314	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
316	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
322	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
324	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
414	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
416	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
422	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
424	E1-E6 LIVING/SLEEPING BAY	CONC	--	CMU	NOTE 2	10'-0"	50	1770 SF	
SERVICE									
106	ELECTRICAL	CONC	--	CMU	--	8'-0"	--	105 SF	
107	TR	CONC	--	CMU	--	8'-0"	--	111 SF	MIN 8X10 ROOM ON 1ST FLOOR, MIN 6X8 ROOM ON UPPER
127	MECHANICAL	CONC	--	CMU	--	10'-0"	50	504 SF	
206	ELECTRICAL	CONC	--	CMU	--	8'-0"	--	105 SF	
207	TR	CONC	--	CMU	--	8'-0"	--	114 SF	MIN 8X10 ROOM ON 1ST FLOOR, MIN 6X8 ROOM ON UPPER
227	MECHANICAL	CONC	--	CMU	--	10'-0"	50	753 SF	
306	ELECTRICAL	CONC	--	CMU	--	8'-0"	--	105 SF	
307	TR	CONC	--	CMU	--	8'-0"	--	114 SF	MIN 8X10 ROOM ON 1ST FLOOR, MIN 6X8 ROOM ON UPPER
327	MECHANICAL	CONC	--	CMU	--	10'-0"	50	751 SF	
406	ELECTRICAL	CONC	--	CMU	--	8'-0"	--	105 SF	
407	TR	CONC	--	CMU	--	8'-0"	--	114 SF	MIN 8X10 ROOM ON 1ST FLOOR, MIN 6X8 ROOM ON UPPER
427	MECHANICAL	CONC	--	CMU	--	10'-0"	50	751 SF	

FINISH LEGEND

ACT	2'-0" X 2'-0" ACOUSTIC CEILING TILE
CMU	PAINTED CONCRETE MASONRY UNIT
CONC	SEALED CONCRETE
EXP	EXPOSED PAINTED STRUCTURE
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD PAINTED
RB	RUBBER BASE

FINISH NOTES

1	ROOM FINISH SHOWN ARE MINIMUM REQUIRED
2	PROPOSED NET SF SHOWN IS AS REFLECTED IN THE STANDSRD FLOOR PLSN. FLOOR AREAS MAY CHANGE TO ALLOW FOR ADJUSTMENTS DUE TO STRUCTURAL, UTILITIES AND CODE REQUIREMENTS, WITHOUT AFFECTING FUNCTION.
3	WHERE WIRE MESH PARTITIONS ARE REQUIRED PROVIDE SECURE ENCLOSURE BY EITHER ATTACHING TO BUILDING STRUCTURE OR ADJACENT WALL.CEILING.
4	SEE APPLICABLE APPENDIX, "PRELIMINARY FF&E INFORMATION" FOR FURNITURE AND EQUIPMENT SYMBOLS AND TAGS SHOWN ON THE FLOOR PLAN.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY:
DRAWN BY: JDO
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM

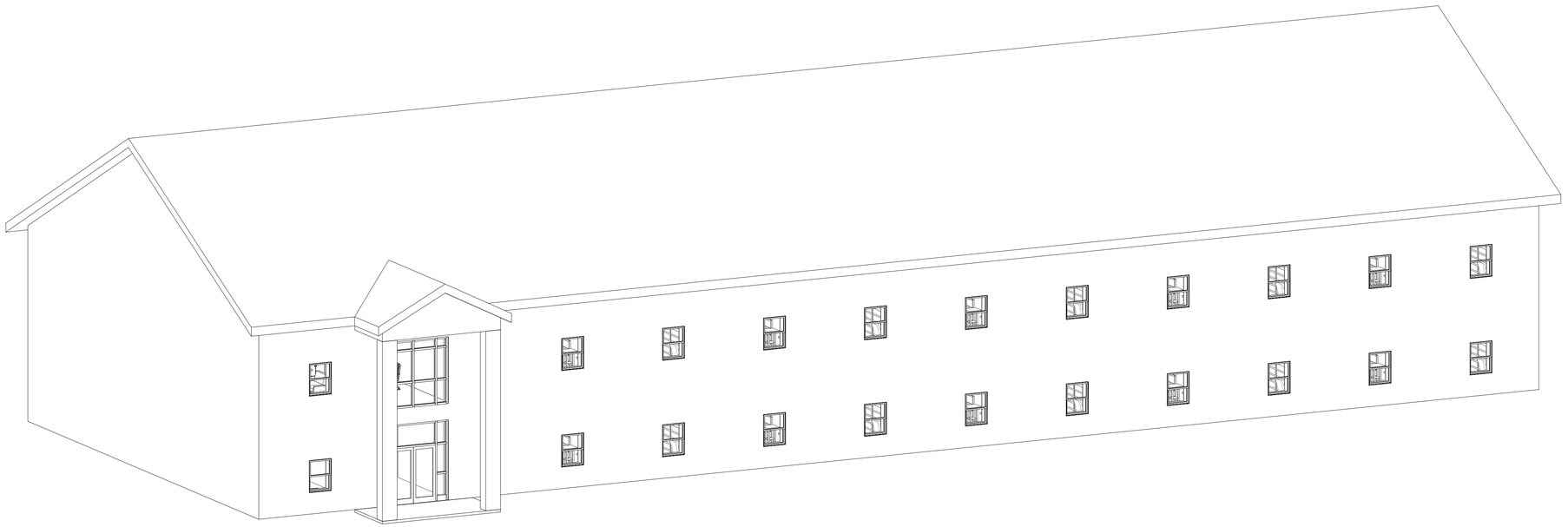
BARRACKS (4 STORY)

FINISH SCHEDULE

SHEET ID
BKS4
A-017

US Army Corps of Engineers ®
LOUISVILLE DISTRICT

DEPARTMENT OF THE ARMY
FACILITIES STANDARDIZATION PROGRAM
(ORTC) STANDARD DESIGN V4.8
OFFICERS QUARTERS: TRANSIENT TRAINING



INDEX OF DRAWINGS

OQ	G-001	COVER
CQ	A-110	FLOOR PLAN
CQ	A-150	ENLARGED FLOOR PLAN
OQ	A-201	EXTERIOR ELEVATIONS

ADAPTATION OF THE STANDARD DESIGN:

THE GENERAL ARRANGEMENT OF SPACES AND THE RELATIONSHIP OF FUNCTIONAL GROUPS TO ONE ANOTHER ARE MANDATORY. MINOR VARIATIONS IN THE BASIC DESIGN FORMS FOR THE BUILDING SHOWN IN THIS STANDARD ARE PERMISSIBLE AS DETERMINED BY THE CENTER OF STANDARDIZATION (COS), TO ACCOMMODATE MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS.

MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS ARE ENCOURAGED; HOWEVER, THERE MUST BE NO LOSS IN DURABILITY DUE TO THE USE OF THESE SYSTEMS AS DETERMINED BY THE COS AND AS COMPARED TO THE TYPICAL CONSTRUCTION SYSTEMS AND FINISHES INDICATED WITHIN THIS PACKAGE.

MATERIAL SELECTIONS, EXTERIOR/INTERIOR DESIGN DETAILS, MECHANICAL, ELECTRICAL, AND STRUCTURAL SYSTEMS DESIGN MAY VARY IN RESPONSE TO LOCAL CLIMATIC AND GEOGRAPHICAL CONDITIONS, LOCAL CONSTRUCTION PRACTICES, AVAILABILITY OF CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS.

THE STANDARD DESIGN REQUIREMENTS AND THE INSTALLATION ARCHITECTURAL THEME MUST BE ANALYZED BY THE INSTALLATION IN CONJUNCTION WITH THE DESIGN AGENT TO ASSURE CONFORMANCE.

BUILDING ELEVATIONS SHOWN ILLUSTRATE POSSIBLE DESIGN SOLUTIONS AND ARE NOT MANDATED. THE INTENT IS TO ALLOW DESIGNERS FLEXIBILITY CONSISTENT WITH THE INSTALLATION DESIGN GUIDE, WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE FACILITY TYPE.

THE BATTALION HEADQUARTERS, BRIGADE HEADQUARTERS, AND DINING FACILITY MUST BE ACCESSIBLE TO PHYSICALLY DISABLED PERSONS, IN ACCORDANCE WITH THE ARCHITECTURE BARRIERS ACT (ABA). ALL OTHER FACILITIES ARE INTENDED FOR USE BY ABLE BODIED MILITARY PERSONNEL ONLY, AND ARE NOT REQUIRED TO MEET HANDICAPPED ACCESSIBILITY CODE REQUIREMENTS.

DRAWING DISCLAIMER:

THE CONCEPTUAL PLANS INCLUDED IN THIS PACKAGE ARE SUBJECT TO CHANGE WITHOUT NOTICE. DESIGNERS AND OTHER STAKE HOLDERS ARE HEREBY DIRECTED TO ENSURE THEY HOLD THE LATEST UPDATE. CONTACT THE LOUISVILLE DISTRICT CENTER OF STANDARDIZATION (COS) FOR ANY INFORMATION REGARDING THE STANDARDS.
SEE WEB SITE: https://mrsi.erdc.dren.mil/cos/lrl/ortc/

DATED: VERSION 4.7, FEBRUARY 2021

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

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DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

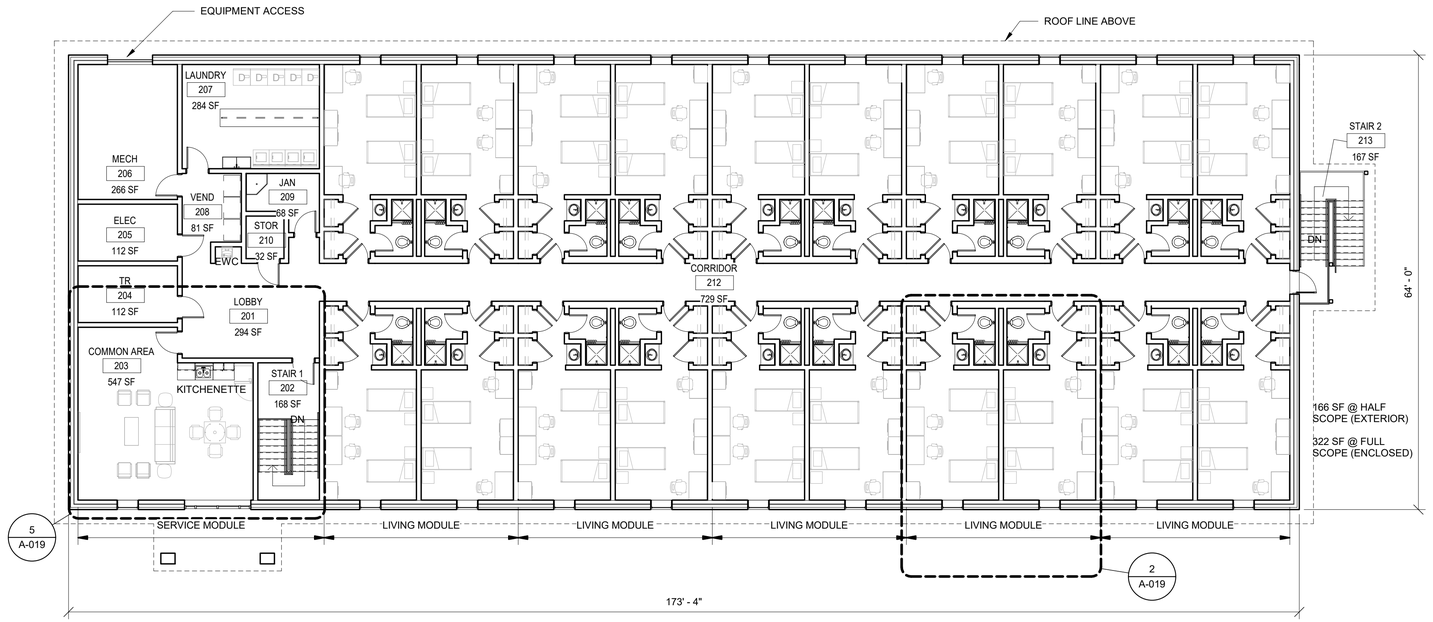
US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

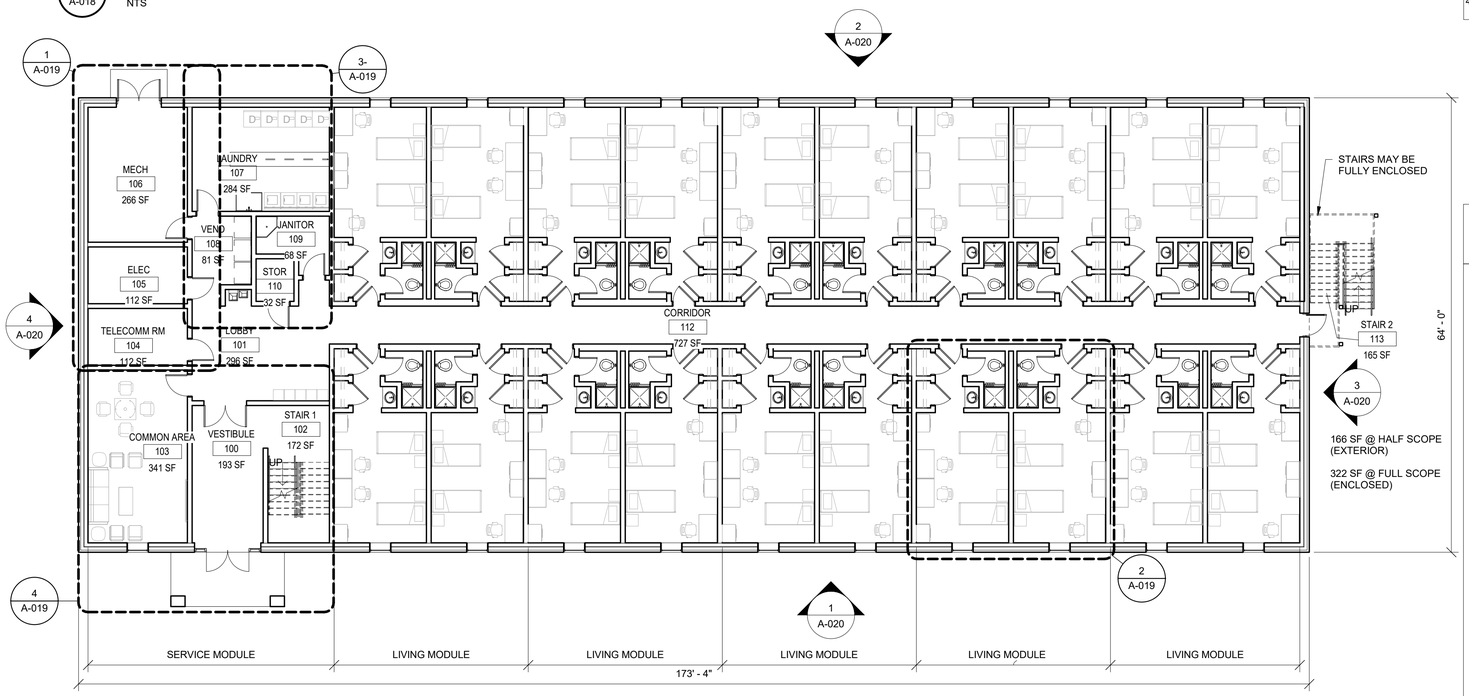
OFFICERS QUARTERS
COVER SHEET

SHEET ID
OQ
G-018



2 A-018 OFFICERS QUARTERS SECOND FLOOR PLAN

NTS



1 A-018 OFFICERS QUARTERS FIRST FLOOR PLAN

NTS

FINISH SCHEDULE

ROOM NO.	Name	FINISH Floor	Base Fin.	WALL FIN.	CLG. FIN.	CLG. HGHT	MIN. STC	Area	NOTES & REMARKS
102	STAIR 1	CONC.	-	CMU	EXP	9' - 0"		172 SF	
100	VESTIBULE	CONC.	-	CMU	EXP	9' - 0"		193 SF	
103	COMMON AREA	CONC.	-	CMU	EXP	9' - 0"		341 SF	
104	TELECOMM RM	CONC.	-	CMU	EXP	8' - 0"		112 SF	
105	ELEC	CONC.	-	CMU	GWB	8' - 0"		112 SF	
106	MECH	CONC.	-	CMU	EXP	8' - 0"	50	266 SF	
107	LAUNDRY	CONC.	-	CMU	EXP	9' - 0"	50	284 SF	
109	JANITOR	CONC.	-	CMU	MRG	8' - 0"		68 SF	
110	STOR	CONC.	-	CMU	EXP	8' - 0"		32 SF	
108	VEND	CONC.	-	CMU	EXP	8' - 0"		81 SF	
101	LOBBY	CONC.	-	CMU	EXP	9' - 0"		296 SF	
112	CORRIDOR	CONC.	-	CMU	EXP	8' - 0"		727 SF	
113	STAIR 2	CONC.	-	CMU	EXP	8' - 0"		165 SF	FINISHES APPLY FOR ENCLOSED STAIR
201	LOBBY	CONC.	-	CMU	EXP	9' - 0"		294 SF	
202	STAIR 1	CONC.	-	CMU	EXP	9' - 0"		168 SF	
203	COMMON AREA	CONC.	-	CMU	EXP	9' - 0"		547 SF	
204	TR	CONC.	-	CMU	EXP	8' - 0"		112 SF	
205	ELEC	CONC.	-	CMU	GWB	8' - 0"		112 SF	MIN. 8'X10' ROOM
206	MECH	CONC.	-	CMU	EXP	8' - 0"	50	266 SF	
207	LAUNDRY	CONC.	-	CMU	EXP	9' - 0"	50	284 SF	
208	VEND	CONC.	-	CMU	EXP	8' - 0"		81 SF	
209	JAN	CONC.	-	CMU	EXP	8' - 0"		68 SF	
210	STOR	CONC.	-	CMU	EXP	8' - 0"		32 SF	
212	CORRIDOR	CONC.	-	CMU	EXP	8' - 0"		729 SF	
213	STAIR 2	CONC.	-	CMU	EXP	8' - 0"		167 SF	FINISHES APPLY FOR ENCLOSED STAIR
EACH	TYP. LIVING / SLEEPING	CONC.	-	CMU	GWB	8' - 0"	50	280 SF	20 MODULES (40) ROOMS
EACH	TYP. BATH & SINK	CONC.	-	CMU	MRG	8' - 0"	50	34 SF	40 BATH/ SINK AREAS

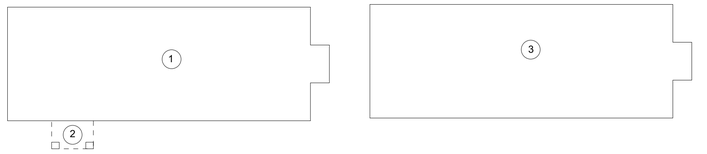
FINISH LEGEND

ACT	2'-0" X 2'-0" ACOUSTIC CEILING TILE
CMU	PAINTED CONCRETE MASONRY UNIT
CONC	SEALED CONCRETE
EXP	EXPOSED PAINTED STRUCTURE
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD PAINTED
RB	RUBBER BASE

FINISH NOTES

1	ROOM FINISH SHOWN ARE MINIMUM REQUIRED
2	PROPOSED NET SF SHOWN IS AS REFLECTED IN THE STANDARD FLOOR PLAN. FLOOR AREAS MAY CHANGE TO ALLOW FOR ADJUSTMENTS DUE TO STRUCTURAL, UTILITIES AND CODE REQUIREMENTS, WITHOUT AFFECTING FUNCTION.
3	WHERE WIRE MESH PARTITIONS ARE REQUIRED PROVIDE SECURE ENCLOSURE BY EITHER ATTACHING TO BUILDING STRUCTURE OR ADJACENT WALL CEILING.
4	SEE APPLICABLE APPENDIX, "PRELIMINARY FF&E INFORMATION" FOR FURNITURE AND EQUIPMENT SYMBOLS AND TAGS SHOWN ON THE FLOOR PLAN.

AREA CALCULATIONS



FIRST FLOOR GROSS AREA CALCS

SECOND FLOOR GROSS AREA CALCS

1ST FLOOR
FULL VALUE:

(1) LIVING MODULES, LAUNDRY, COMMON SPACE, MECHANICAL, CORRIDOR, STAIRS, ETC.. 11,259.0 SF

1ST FLOOR
HALF VALUE:

(2) EXTERIOR COVERED (122.0 X 1/2) = 61.0 SF

1ST FLOOR TOTAL : 11,320.0 SF

2ND FLOOR
FULL VALUE:

(3) LIVING MODULES, LAUNDRY , COMMON SPACE, MECHANICAL, CORRIDOR, STAIRS, ETC. 11,259.0 SF

2ND FLOOR TOTAL : 11,259.0 SF

BUILDING TOTAL GROSS AREA : 22,579.0 SF

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

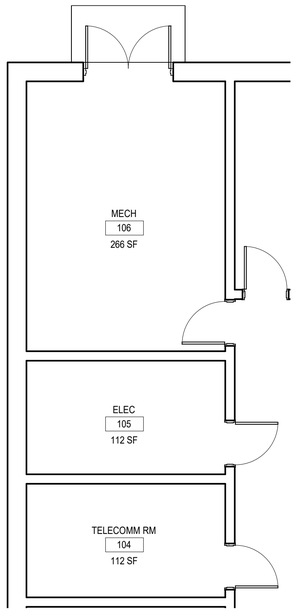
DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

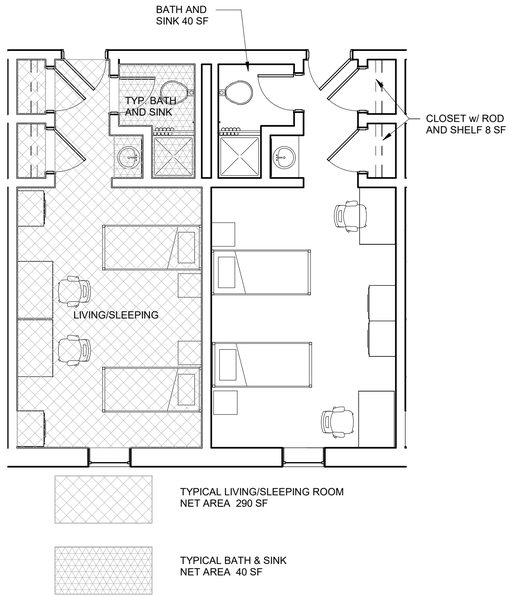
DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
OFFICERS QUARTERS
FLOOR PLAN

SHEET ID
OQ
A-018



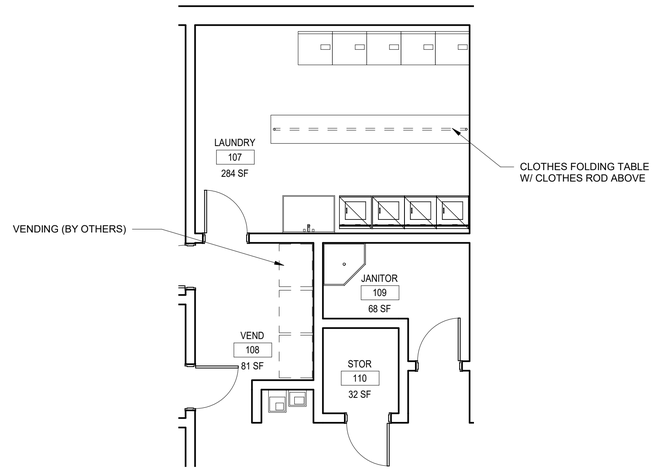
1 A-019 SERVICE AREA

3/16" = 1'-0"



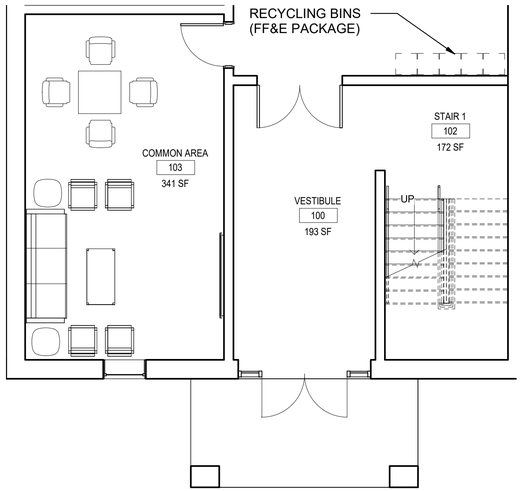
2 A-019 MODIFIED 2+2 MODULE FLOOR PLAN

3/16" = 1'-0"



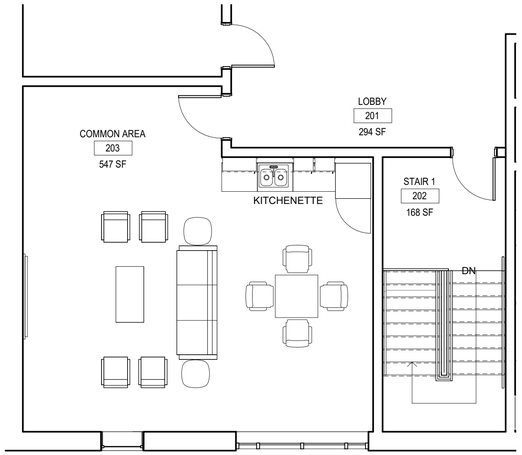
3- A-019 VENDING AND LAUNDRY AREA

3/16" = 1'-0"



4 A-019 COMMON AREA - FIRST FLOOR

3/16" = 1'-0"



5 A-019 COMMON AREA - SECOND FLOOR

3/16" = 1'-0"

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: FEBRUARY 2021
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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM

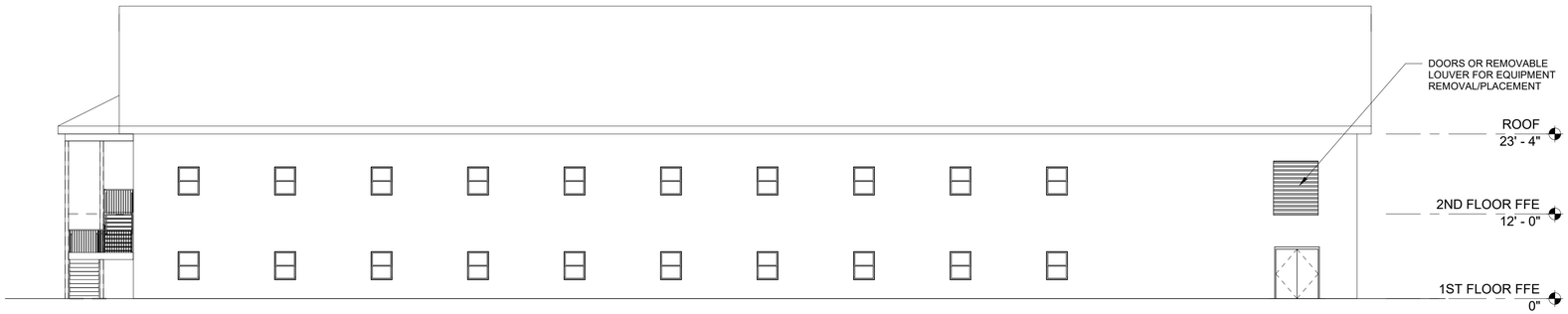
OFFICERS QUARTERS

ENLARGED FLOOR PLAN

SHEET ID
OQ
A-019

1 A-020 OFFICER'S QUARTERS EXTERIOR ELEVATION

NTS



2 A-020 OFFICER'S QUARTERS EXTERIOR ELEVATION

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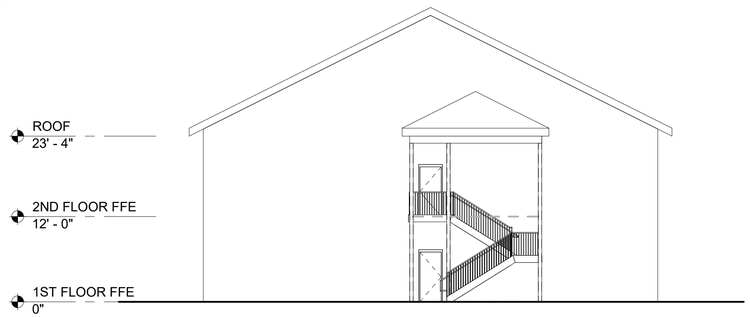

3 A-020 OFFICER'S QUARTERS EXTERIOR ELEVATION

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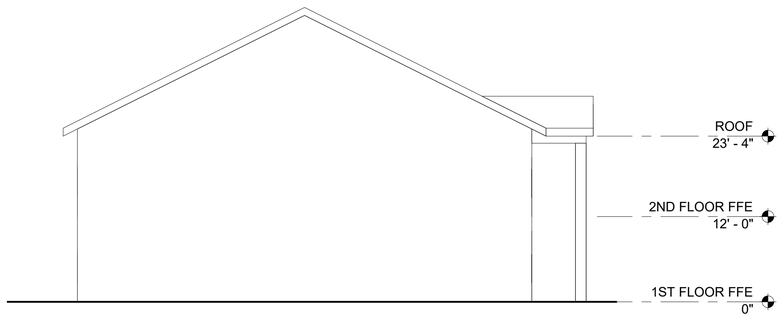


4 A-020 OFFICER'S QUARTERS EXTERIOR ELEVATION

NTS

ELEVATION DESIGN NOTES

1	THE EXTERIOR ELEVATIONS ILLUSTRATE MASSING NOT MANDATING PARTICULAR ARCHITECTURAL THEME OR ANY SPECIFIC MATERIALS. THE SELECTION OF MATERIALS FOR THE EXTERIOR ENVELOPE MUST BE GUIDED BY LOCAL CLIMATIC AND GEOGRAPHIC CONDITIONS, LOCAL CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS. THE EXTERIOR ENVELOPE MUST BE ANALYZED AND FURTHER DEVELOPED BY THE DOR TO CONFORM WITH THE INSTALLATION ARCHITECTURAL THEME AS DESCRIBED IN THE INSTALLATION DESIGN GUIDE AND OTHER DESIGN REQUIREMENTS.
2	THE INTENT TO ALLOW DESIGNERS THE FLEXIBILITY IN AESTHETIC DESIGN WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE BUILDING PLAN. THERMAL PROTECTION ALONG WITH DURABLE INTERIOR AND EXTERIOR WALL SURFACES WITH APPROPRIATE AESTHETIC QUALITIES MUST BE GIVEN PRIORITY TO CREATE SUSTAINABLE AND FUNCTIONAL ARCHITECTIURE.
3	BUILDING HEIGHTS SHOWN ON THE ELEVATIOINS ARE FOR ILLUSTRATION ONLY. BUILDING HEIGHTS MUST BE DETERMINED BY THE DESIGNER, MAINTAING MIN CEILING AND CLEAR HEIGHTS INDICATED IN THE FINISH SCHEDULE IN THE DRAWINGS, AND TO PROVIDE ADEQUATE SPACE FOR UTILITIES AND STRUCTURE ABOVE FINISH CEILINGS AND ABOVE REQUIRED CLEAR HEIGHTS WHERE STRUCTURE IS EXPOSED.
4	SEE APPENDIX IN THE RFP FOR INSTALLATION'S ARCHITECTURAL THEME INCLUDING EXTERIOR COLORS AND MATERIALS.
5	WINDOWS SHOWN ARE THE MINIMUM REQUIRED. DOR MUST DETERMINE THE LARGEST FEASIBLE WINDOW CONSIDERING CLIMATE, DAY LIGHTING, AND AESTHETICS.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

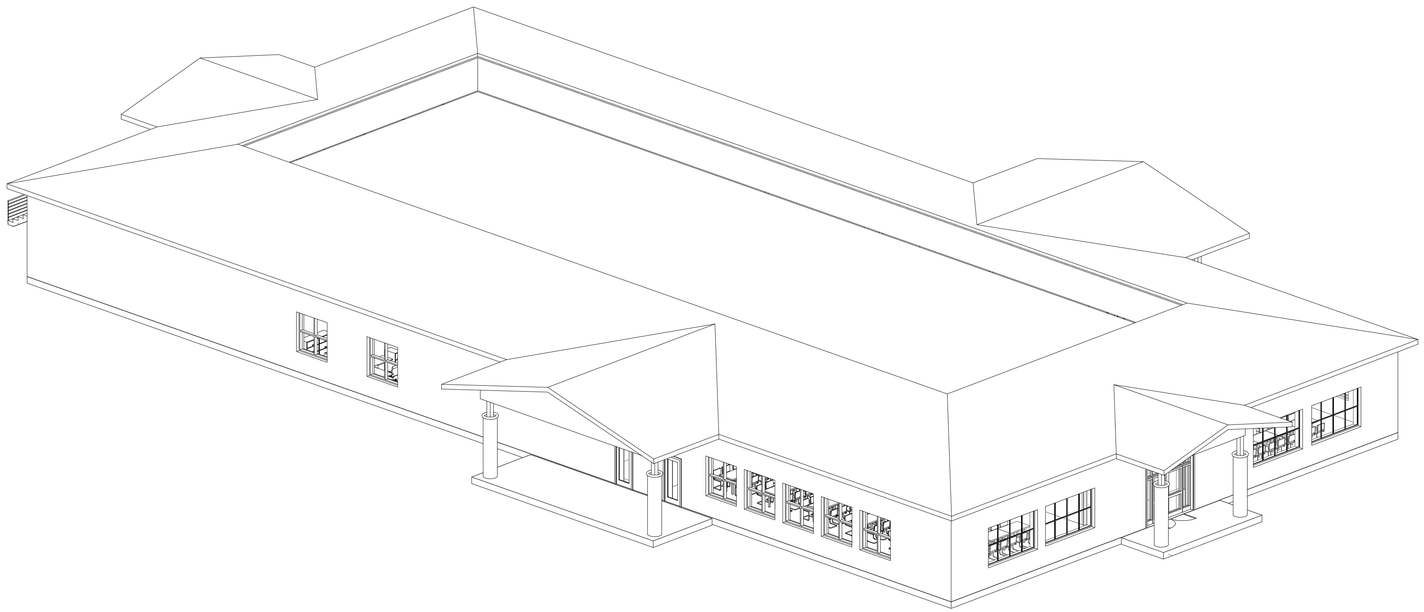
US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
OFFICERS QUARTERS
EXTERIOR ELEVATIONS

SHEET ID
OQ
A-020

DEPARTMENT OF THE ARMY
FACILITIES STANDARDIZATION PROGRAM
(ORTC) STANDARD DESIGN V4.8
(SMALL) DINING FACILITY : TRANSIENT TRAINING



INDEX OF DRAWINGS		
SMDF	G-021	COVER SHEET
SMDF	A-021	FLOOR PLAN
SMDF	A-022	EXTERIOR ELEVATIONS
SMDF	A-023	EQUIPMENT SCHEDULE

ADAPTATION OF THE STANDARD DESIGN:

THE GENERAL ARRANGEMENT OF SPACES AND THE RELATIONSHIP OF FUNCTIONAL GROUPS TO ONE ANOTHER ARE MANDATORY. MINOR VARIATIONS IN THE BASIC DESIGN FORMS FOR THE BUILDING SHOWN IN THIS STANDARD ARE PERMISSIBLE AS DETERMINED BY THE CENTER OF STANDARDIZATION (COS), TO ACCOMMODATE MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS.

MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS ARE ENCOURAGED; HOWEVER, THERE MUST BE NO LOSS IN DURABILITY DUE TO THE USE OF THESE SYSTEMS AS DETERMINED BY THE COS AND AS COMPARED TO THE TYPICAL CONSTRUCTION SYSTEMS AND FINISHES INDICATED WITHIN THIS PACKAGE.

MATERIAL SELECTIONS, EXTERIOR/INTERIOR DESIGN DETAILS, MECHANICAL, ELECTRICAL, AND STRUCTURAL SYSTEMS DESIGN MAY VARY IN RESPONSE TO LOCAL CLIMATIC AND GEOGRAPHICAL CONDITIONS, LOCAL CONSTRUCTION PRACTICES, AVAILABILITY OF CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS.

THE STANDARD DESIGN REQUIREMENTS AND THE INSTALLATION ARCHITECTURAL THEME MUST BE ANALYZED BY THE INSTALLATION IN CONJUNCTION WITH THE DESIGN AGENT TO ASSURE CONFORMANCE.

BUILDING ELEVATIONS SHOWN ILLUSTRATE POSSIBLE DESIGN SOLUTIONS AND ARE NOT MANDATED. THE INTENT IS TO ALLOW DESIGNERS FLEXIBILITY CONSISTENT WITH THE INSTALLATION DESIGN GUIDE, WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE FACILITY TYPE.

THE BATTALION HEADQUARTERS, BRIGADE HEADQUARTERS, AND DINING FACILITY MUST BE ACCESSIBLE TO PHYSICALLY DISABLED PERSONS, IN ACCORDANCE WITH THE ARCHITECTURE BARRIERS ACT (ABA). ALL OTHER FACILITIES ARE INTENDED FOR USE BY ABLE BODIED MILITARY PERSONNEL ONLY, AND ARE NOT REQUIRED TO MEET HANDICAPPED ACCESSIBILITY CODE REQUIREMENTS.

DRAWING DISCLAIMER:

THE CONCEPTUAL PLANS INCLUDED IN THIS PACKAGE ARE SUBJECT TO CHANGE WITHOUT NOTICE. DESIGNERS AND OTHER STAKE HOLDERS ARE HEREBY DIRECTED TO ENSURE THEY HOLD THE LATEST UPDATE. CONTACT THE LOUISVILLE DISTRICT CENTER OF STANDARDIZATION (COS) FOR ANY INFORMATION REGARDING THE STANDARDS.
SEE WEBSITE: https://mrsi.erdc.dren.mil/cos/lrl/ortc/

DATED: VERSION 4.7, FEBRUARY 2021

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS
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OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

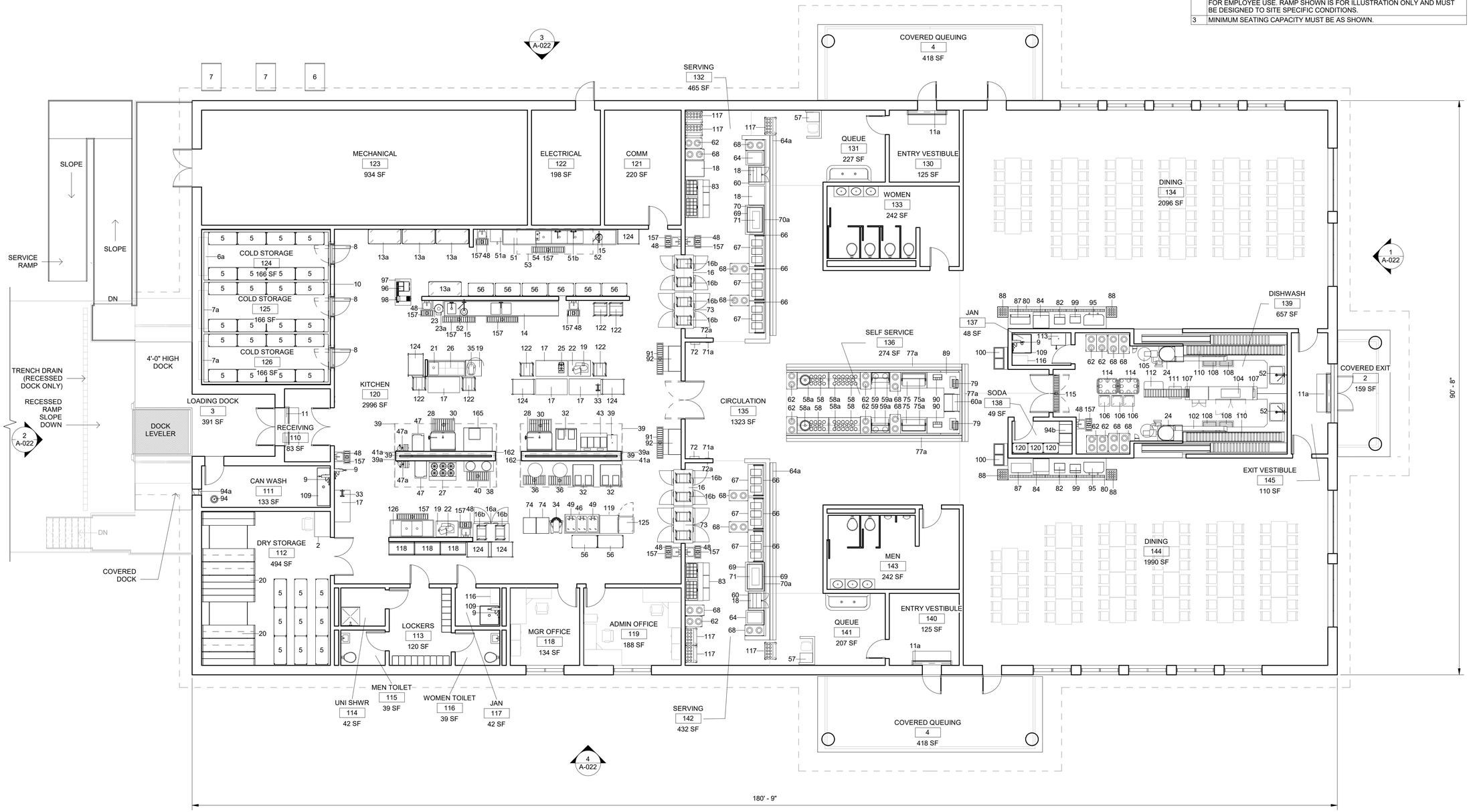
DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

(SMALL) DINING FACILITY

COVER SHEET

SHEET ID
SMDF
G-021

GENERAL SHEET NOTES	
1	SEE SHEET A-160 FOR EQUIPMENT SCHEDULE AND FINISH SCHEDULE.
2	PROVIDE A SERVICE RAMP FOR HAND TRUCK AND GARBAGE CAN ACCESS UP TO THE LOADING DOCK. THE RAMP MUST ALSO BE HANDICAP ACCESSIBLE FOR EMPLOYEE USE. RAMP SHOWN IS FOR ILLUSTRATION ONLY AND MUST BE DESIGNED TO SITE SPECIFIC CONDITIONS.
3	MINIMUM SEATING CAPACITY MUST BE AS SHOWN.



1 SMALL DINING FACILITY FLOOR PLAN

1/8" = 1'-0"

US Army Corps of Engineers ®

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(SMALL) DINING FACILITY
FLOOR PLAN

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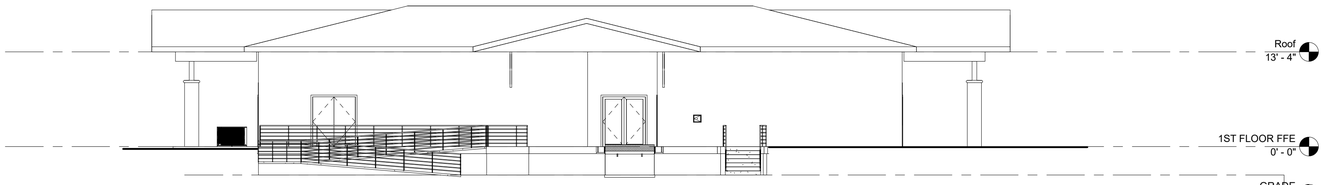
1 SMALL DINING FACILITY EXTERIOR ELEVATION
3/32" = 1'-0"



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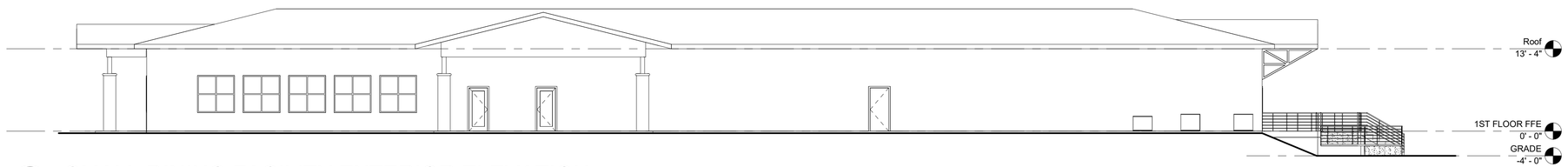

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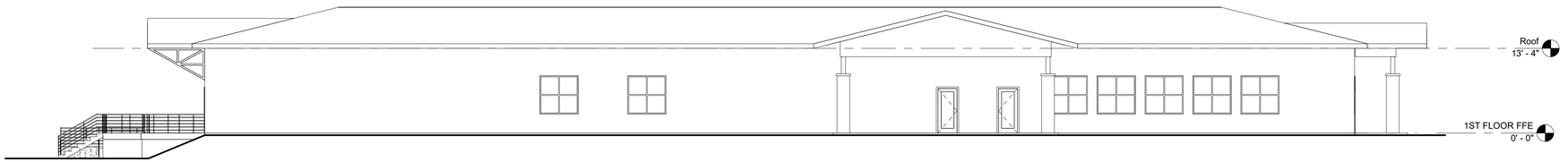

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LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM

(SMALL) DINING FACILITY
EXTERIOR ELEVATIONS

SHEET ID
SMDF
A-022

EQUIPMENT SCHEDULE

ITEM	CLASS	QTY	DESCRIPTION
2	C	1	RECEIVING DESK AND CHAIR
5	C	33	MOBILE SHELVING UNIT 24 X 54
6	A	1	WALK IN FREEZER CONDENSING UNIT
6a	A	1	WALK-IN FREEZER UNIT COOLER
7	A	2	WALK IN COOLER CONDENSING UNIT
7a	A	2	WALK-IN COOLER UNIT COOLER
8	A	3	WALK IN DOOR CLOSURE
9	A	4	FAUCET HOSE STATION
10	A	1	WALK IN COOLER/COOLER/FREEZER COMBINATION
11	A	1	AIR CURTAIN - 72 in
11a	A	3	AIR CURTAIN 72in
13a	C	4	CART
14	A	1	VEGETABLE PREP SINK
15	A	2	GARBAGE DISPOSAL - 5 HP
16	A	2	2 - SECTION ROLL-THRU REFRIDGERATOR
16a	A	1	2 - SECTION ROLL-IN REFRIDGERATOR
16b	A	10	ROLL IN RACK
17	A	5	WORK TABLE ON CASTERS
18	A	4	PORTABLE WORK TABLE
19	A	3	EQUIPMENT STAND
20	A	2	TRACK SHELVING
21	A	1	TABLE WITH SINK
22	C	2	SLICER
23	A	1	VEGETABLE PEELER
23a	A	1	GARBAGE DISPOSER
24	A	2	PULPER
24a	A	2	PULPER CONTROL PANEL
25	C	1	FOOD PROCESSOR
26	A	1	POT RACK
27	A	1	6 BURNER GAS RANGE
28	A	2	TILT SKILLET
30	A	2	FLOOR TROUGH
32	A	3	DOUBLE DECK CONVECTION OVEN
33	C	2	CAN OPENER
34	A	1	60 QT FLOOR MIXER
35	C	1	20 QT MIXER
36	A	2	40 GALLON KETTLE
38	A	1	TWIN 12 - GALLON KETTLE ON STAND
39	A	2	EXHAUST HOOD - ISLAND TYPE
39a	A	2	HOOD CONTROL PANEL FOR ITEM 39
40	A	3	FLOOR TROUGH
41	A	2	FIRE SUPPRESSION SYSTEM FOR ITEM 39
41a	A	4	FIRE SUPPRESSION PULL STATION FOR ITEM 39
43	A	1	TWO BANK FRY SYSTEM
44	A	1	FILTER STATION
46	C	1	BAKERS TABLE
47	A	2	STEAMER
47a	A	2	WATER FILTER
48	A	10	HAND SINK
49	C	3	INGREDIENT BINS
51	A	1	POT AND PAN SINK
51a	A	1	BOOSTER HEATER
51b	A	2	FAUCET
52	A	6	PRE RINSE SPRAY
53	A	1	EXHAUST HOOD
54	A	1	SINK HEATER
56	C	8	PORTABLE PAN STORAGE
57	A	2	HEAD COUNT STATION - REFER TO DIVISION 6
58	A	4	PORTABLE SALAD BAR COUNTER
58a	A	4	FOOD SHIELD WITH LIGHTS
59	A	2	PORTABLE SOUP STATIONS
59a	A	2	FOOD SHIELD WITH LIGHTS
60	A	2	BREAD DISPLAY
60a	A	1	BREAD DISPLAY WITH LIGHTS

EQUIPMENT SCHEDULE

ITEM	CLASS	QTY	DESCRIPTION
62	C	10	PLATE DISPENSER
64	A	2	PORTABLE 'FITNESS BAR' COUNTER
64a	A	2	TRAY SLIDE
66	A	6	PROTECTOR CASE
67	A	6	PORTABLE HOT / GRILL COUNTER
68	C	14	DINNER PLATE DISPENSER
69	A	2	GAS GRIDDLE
70	C	2	GRIDDLE STAND
70a	A	4	SPLASH GUARD
71	A	2	EXHAUST HOOD
71a	A	2	HOOD CONTROL PANEL FOR ITEM 71
72	A	2	FIRE SUPPRESSION SYSTEM FOR ITEM 71
72a	A	2	FIRE SUPPRESSION PULL STATION FOR ITEM 71
73	A	2	2 - SECTION ROLL-THRU HEATED CABINET
74	C	2	PASTRY STORAGE CABINET
75	A	2	PORTABLE DESSERT COUNTER
75a	A	2	FOOD SHIELD WITH LIGHTS
77a	A	3	TRAY SLIDE
79	C	2	CONVEYOR TOASTER
80	A	2	BEVERAGE COUNTER
82	C	2	JUICE DISPENSER
83	A	2	SANDWICH UNIT
84	L	2	ICE / BEVERAGE DISPENSER - VENDOR FURNISHED
87	C	2	MILK DISPENSER
88	C	4	CUP / GLASS DISPENSER
89	A	1	BREAD COUNTER
90	A	2	CONDIMENT BIN
91	A	2	FLOOR TROUGH
92	A	2	ICE MAKER WITH BIN
94	L	1	CO2 TANKS - VENDOR FURNISHED
94a	L	1	CO2 TANK REMOTE FILL STATION - VENDOR FURNISHED
94b	C	1	CO2 TANK STORAGE RACK
95	L	2	COFFEE BREWER - VENDOR FURNISHED
96	A	1	AUTOMATIC COFFEE URN
97	A	1	URN STAND
98	L	1	BULK JUICE DISPENSOR - VENDOR FURNISHED
99	L	2	CAPPUCINO DISPENSOR - VENDOR FURNISHED
100	L	2	ICE CREAM CABINET - VENDOR FURNISHED
101	A	2	TRAY RETURN CONVEYOR
102	A	2	ROLLER CONVEYOR TABLE
104	A	1	WAREWASHER
105	C	2	PULP CONTAINER
106	C	3	RACK DOLLY
107	A	2	VENT DUCT EXTENSION
108	A	4	SOAK SINK
109	A	3	CUSTODIAL SINK - REFER TO DIVISION 22
110	A	2	RACK ROLLER CONVEYOR
111	A	1	BOOSTER HEATER
112	A	1	CLEAN DISH TABLE WITH ROLLER CONVEYOR
113	C	1	CLEANING / SANITIZING MACHINE
114	C	2	DISH CART
115	A	1	FLOOR TROUGH
116	A	2	WALL MOUNTED SHELF
117	C	6	TRAY & FLATWARE DISPENSOR
118	L	3	BREAD RACK - VENDOR FURNISHED
119	C	1	PROOFING CABINET
120	L	3	SYRUP BOX RACKS - VENDOR FURNISHED
122	C	6	OPEN RACK
124	C	6	UTLITY CART
125	A	1	COOK AND HOLD CABINET
126	A	1	PREP SINK
157	A	14	FLOOR TROUGH
162	A	2	STAINLESS STEEL ANGLED WALL CAP
165	A	1	ROLL-IN COMBINATIONM STEAMER / OVEN

FINISH SCHEDULE

ROOM NAME	ROOM NO.	FINISH FLOOR	BASE	WALL	CEILING	MIN. CEILING HEIGHT	NET SF	NOTES
DINING AREA								
ENTRY VESTIBULE	130	PT	PT	GWB	ACT	9' - 0"	125 SF	
QUEUE	131	PT	PT	GWB	ACT	9' - 0"	227 SF	
SERVING	132	QT	QT	CT	WACT	9' - 0"	465 SF	
WOMEN	133	PT	PT	CT	MRG	8' - 0"	242 SF	
DINING	134	PT	PT	GWB	ACT	9' - 0"	2096 SF	
CIRCULATION	135	PT	PT	CT	ACT	9' - 0"	1323 SF	
SELF SERVICE	136	QT	QT	CT	ACT	9' - 0"	274 SF	
JAN	137	QT	QT	CT	MRG	9' - 0"	48 SF	
SODA	138	QT	QT	CT	WACT	9' - 0"	49 SF	
DISHWASH	139	QT	QT	CT	WACT	10' - 0"	657 SF	
ENTRY VESTIBULE	140	PT	PT	GWB	ACT	9' - 0"	125 SF	
QUEUE	141	PT	PT	GWB	ACT	9' - 0"	207 SF	
SERVING	142	QT	QT	CT	WACT	9' - 0"	432 SF	
MEN	143	PT	PT	CT	MRG	8' - 0"	242 SF	
DINING	144	PT	PT	GWB	ACT	9' - 0"	1990 SF	
EXIT VESTIBULE	145	PT	PT	CTW/GWB	GWB	9' - 0"	110 SF	
KITCHEN AREA								
RECEIVING	110	QT	QT	CT	MRG/ EP	9' - 0"	83 SF	
CAN WASH	111	QT	QT	CT/ EMG	MRG/ EP	8' - 0"	133 SF	
DRY STORAGE	112	QT	QT	GWB	GWB	9' - 0"	494 SF	
LOCKERS	113	PT	PT	CT	ACT	9' - 0"	120 SF	
UNI SHWR	114	PT	PT	CT	MRG	9' - 0"	42 SF	
MEN TOILET	115	PT	PT	CT	MRG	9' - 0"	39 SF	
WOMEN TOILET	116	PT	PT	CT	MRG	9' - 0"	39 SF	
JAN	117	QT	QT	CT/ EMG	MRG/ EP	8' - 0"	42 SF	
MGR OFFICE	118	VCT	RB	GWB	ACT	9' - 0"	134 SF	
ADMIN OFFICE	119	VCT	RB	GWB	ACT	9' - 0"	188 SF	
KITCHEN	120	QT	QT	CT	WACT	9' - 0"	2996 SF	
COLD STORAGE	124	CONC	PP	PP	PP	9' - 0"	166 SF	
COLD STORAGE	125	CONC	PP	PP	PP	9' - 0"	166 SF	
COLD STORAGE	126	CONC	PP	PP	PP	9' - 0"	166 SF	
SERVICE								
COMM	121	CONC	RB	GWB	GWB	9' - 0"	220 SF	MIN RM SIZE = 1.1% GROSS BLDG AREA
ELECTRICAL	122	CONC	RB	GWB	EXP	9' - 0"	198 SF	
MECHANICAL	123	CONC	RB	GWB	EXP	9' - 0"	934 SF	

FINISH LEGEND

ACT	2'-0" x 2'-0" ACOUSTICAL TILE CEILING
CMU	PAINTED CMU
CONC	SMOOTH, SEALED CONCRETE
CT	CERAMIC TILE
CTW	CERAMIC TILE WAINSCOT, 4'-0" AFF
EMG	EPOXY MORTAR GROUT
EP	EPOXY PAINT
EXP	EXPOSED, PAINTED STRUCTURE & DECK
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD, PAINTED
PP	PRE FABRICATED PANELS
PT	PORCELAN OR STONE TILE
QT	QUARRY TILE
RB	RUBBER BASE
WACT	2'-0" x 2'-0" ACT W/ WASHABLE & SCRUBBABLE SURFACE MEETING USDA/FSIS GUIDELINES FOR FOOD PROCESSING USE.

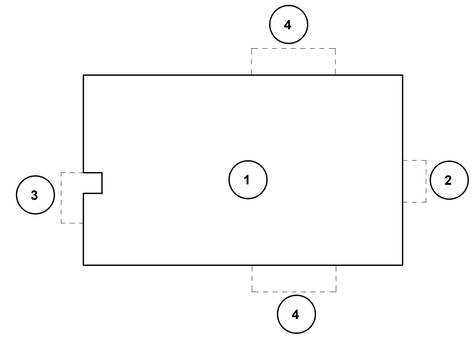
FINISH NOTES

1	SEE MINIMUM ROOM FINISHES IN APPLICABLE APPENDIX, ADDITIONAL DFAC FUNCTIONAL REQUIREMENTS.
2	PROPOSED NET SF SHOWN IS AS REFLECTED IN THE STANDARD FLOOR PLAN. FLOOR AREAS MAY CHANGE TO ALLOW FOR ADJUSTMENTS DUE TO STRUCTURAL, UTILITIES AND CODE REQUIREMENTS, WITHOUT AFFECTING FUNCTION.
3	WHERE WIRE MESH PARTITIONS ARE REQUIRED PROVIDE SECURE ENCLOSURE BY EITHER ATTACHING TO BUILDING STRUCTURE OR ADJACENT WALL.CEILING.
4	SEE APPLICABLE APPENDIX, "PRELIMINARY FF&E INFORMATION" FOR FURNITURE AND EQUIPMENT SYMBOLS AND TAGS SHOWN ON THE FLOOR PLAN.

AREA CALCULATIONS

FLOOR PLAN GROSS AREA CALCS

1	BUILDING AREA AT FULL VALUE		16,449 SF
	EXTERIOR COVERED AREA AT HALF VALUE:		
2	EXIT COVERED AREA	(159 X 1/2) =	81 SF
3	LOADING DOCK	(391 X 1/2) =	165 SF
4	COVERED QUEUING	[(418 X 2) X 1/2] =	320 SF
	EXTERIOR COVERED SUBTOTAL		694 SF
	BUILDING TOTAL GROSS AREA		**17,015 SF**



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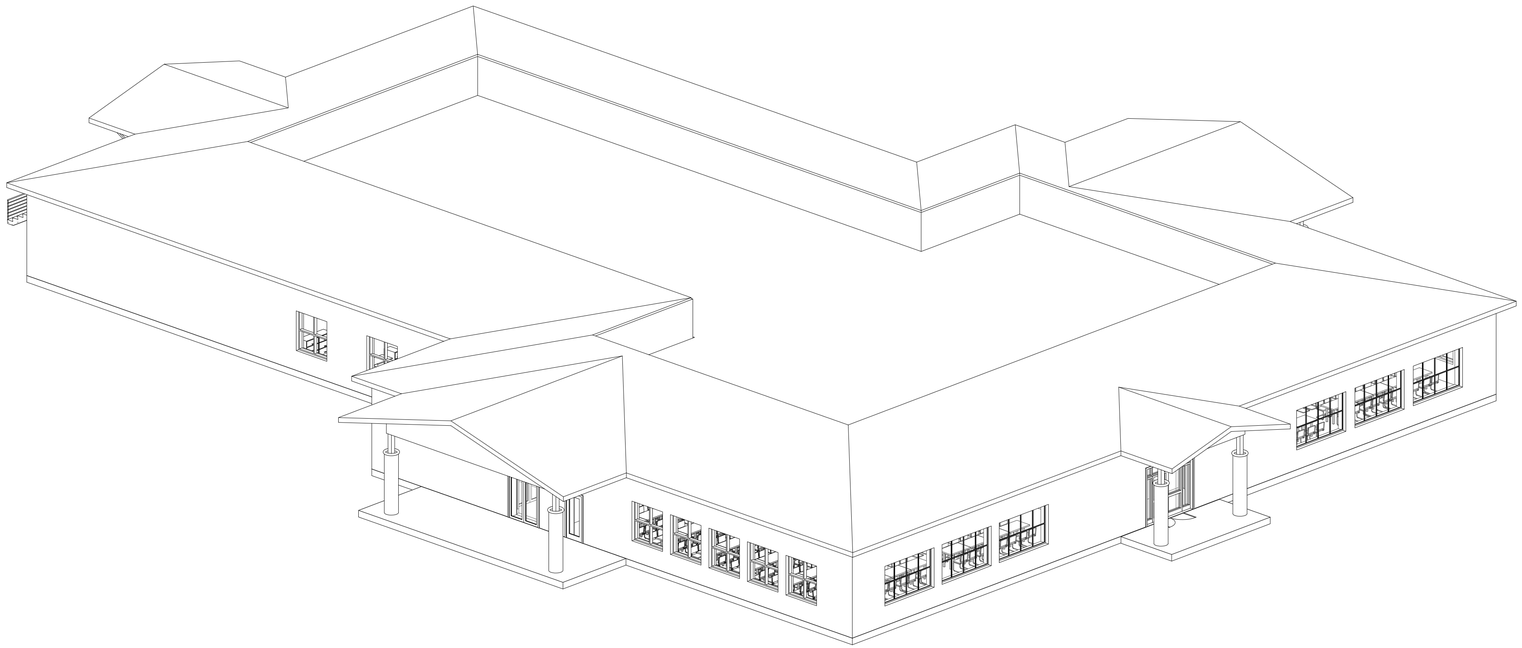
(ORTC) STANDARD DESIGN V4.8
(LARGE) DINING FACILITY : TRANSIENT TRAINING



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ADAPTATION OF THE STANDARD DESIGN:

THE GENERAL ARRANGEMENT OF SPACES AND THE RELATIONSHIP OF FUNCTIONAL GROUPS TO ONE ANOTHER ARE MANDATORY. MINOR VARIATIONS IN THE BASIC DESIGN FORMS FOR THE BUILDING SHOWN IN THIS STANDARD ARE PERMISSIBLE AS DETERMINED BY THE CENTER OF STANDARDIZATION (COS), TO ACCOMMODATE MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS.

MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS ARE ENCOURAGED; HOWEVER, THERE must BE NO LOSS IN DURABILITY DUE TO THE USE OF THESE SYSTEMS AS DETERMINED BY THE COS AND AS COMPARED TO THE TYPICAL CONSTRUCTION SYSTEMS AND FINISHES INDICATED WITHIN THIS PACKAGE.

MATERIAL SELECTIONS, EXTERIOR/INTERIOR DESIGN DETAILS, MECHANICAL, ELECTRICAL, AND STRUCTURAL SYSTEMS DESIGN MAY VARY IN RESPONSE TO LOCAL CLIMATIC AND GEOGRAPHICAL CONDITIONS, LOCAL CONSTRUCTION PRACTICES, AVAILABILITY OF CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS.

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THE BATTALION HEADQUARTERS, BRIGADE HEADQUARTERS, AND DINING FACILITY must BE ACCESSIBLE TO PHYSICALLY DISABLED PERSONS, IN ACCORDANCE WITH THE ARCHITECTURE BARRIERS ACT (ABA). ALL OTHER FACILITIES ARE INTENDED FOR USE BY ABLE BODIED MILITARY PERSONNEL ONLY, AND ARE NOT REQUIRED TO MEET HANDICAPPED ACCESSIBILITY CODE REQUIREMENTS.

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DATED: VERSION 4.7, FEBRUARY 2021

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: JUNE 2021
SOLICITATION NO.:
CONTRACT NO.:

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

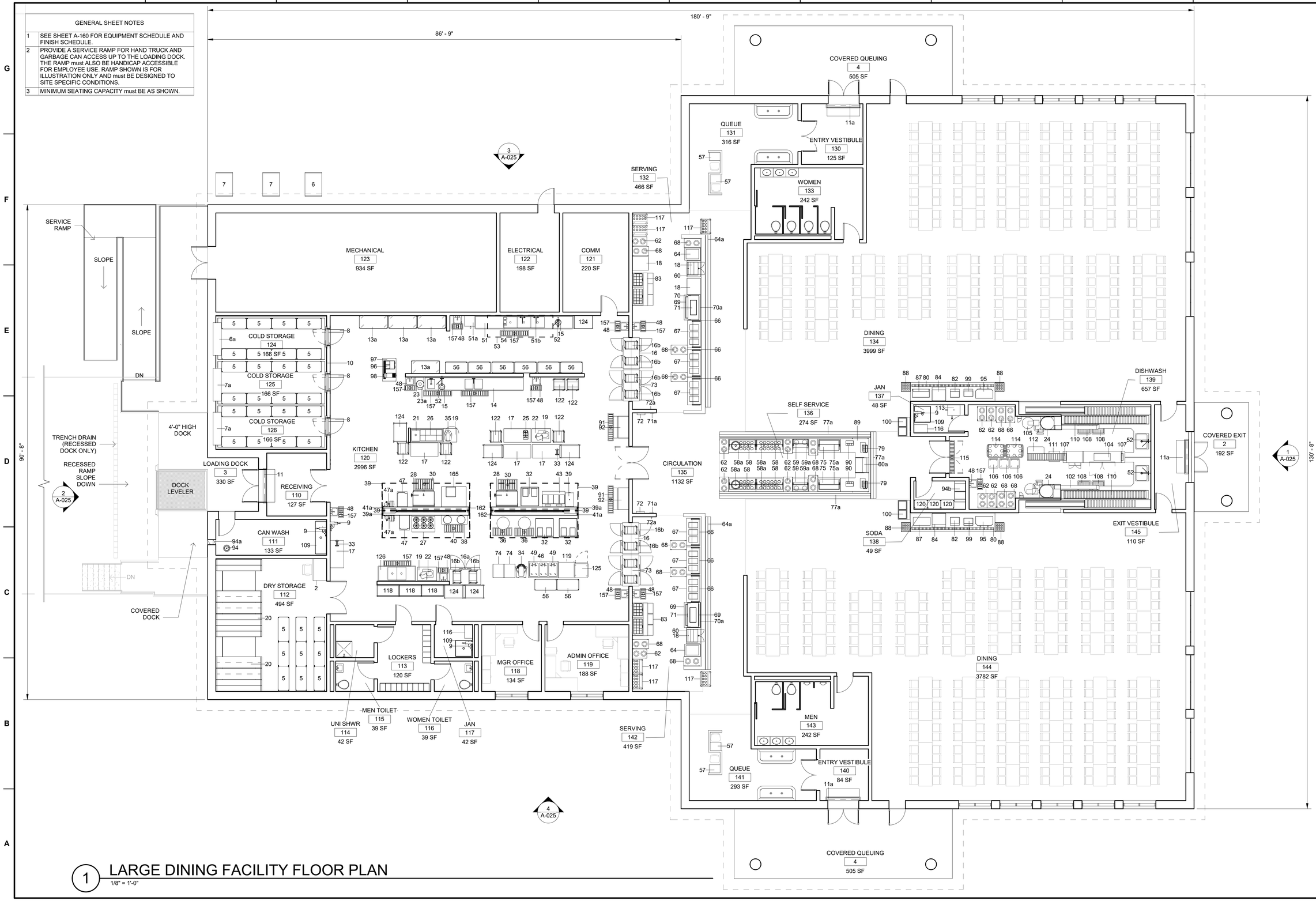
DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

(LARGE) DINING FACILITY

COVER SHEET

SHEET ID
LGDF
G-024

GENERAL SHEET NOTES	
1	SEE SHEET A-160 FOR EQUIPMENT SCHEDULE AND FINISH SCHEDULE.
2	PROVIDE A SERVICE RAMP FOR HAND TRUCK AND GARBAGE CAN ACCESS UP TO THE LOADING DOCK. THE RAMP must ALSO BE HANDICAP ACCESSIBLE FOR EMPLOYEE USE. RAMP SHOWN IS FOR ILLUSTRATION ONLY. AND must BE DESIGNED TO SITE SPECIFIC CONDITIONS.
3	MINIMUM SEATING CAPACITY must BE AS SHOWN.



1 LARGE DINING FACILITY FLOOR PLAN
1/8" = 1'-0"

US Army Corps of Engineers ®

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CHECKED BY: UJS
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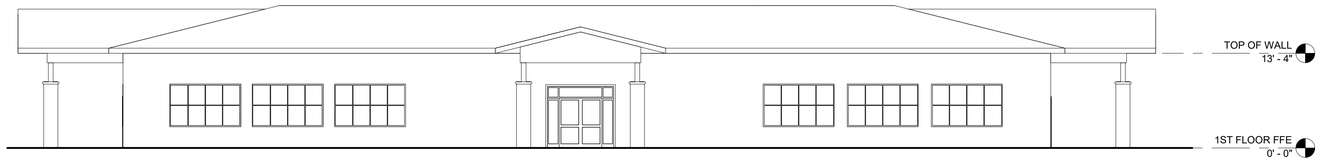
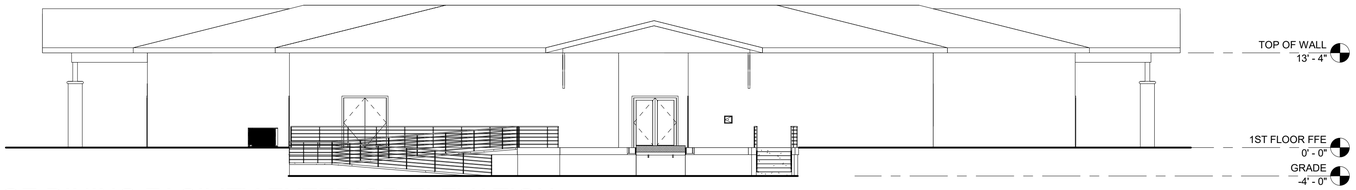
OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
(LARGE) DINING FACILITY
FLOOR PLAN

SHEET ID
LGDF
A-024



1 LARGE DINING FACILITY EXTERIOR ELEVATION
3/32" = 1'-0"



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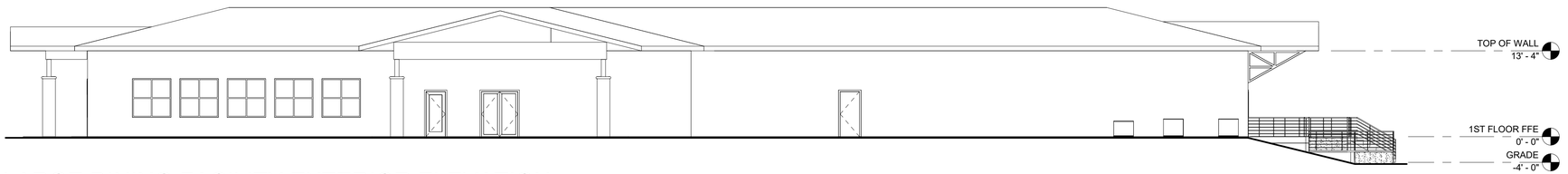

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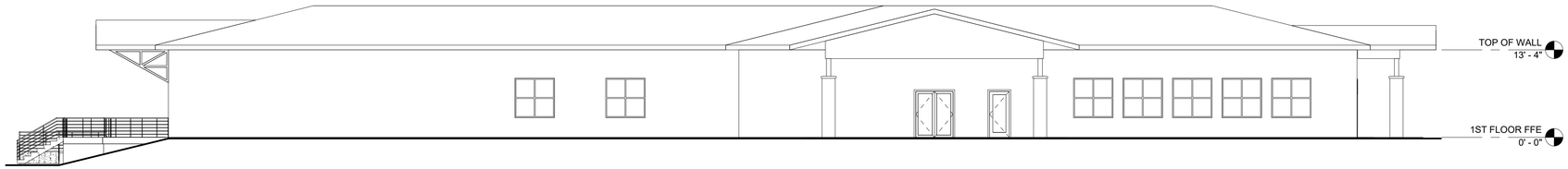

4 LARGE DINING FACILITY EXTERIOR ELEVATION
3/32" = 1'-0"

ELEVATION DESIGN NOTES

1	THE EXTERIOR ELEVATION S ILLUSTRATE MASSING NOT MANDATING PARTICULAR ARCHITECTURAL THEME OR ANY SPECIFIC MATERIALS. THE SELECTION OF MATERIALS FOR THE EXTERIOR ENVELOPE must BE GUIDED BY LOCAL CLIMATIC AND GEOGRAPHIC CONDITIONS, LOCAL CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS. THE EXTERIOR ENVELOPE MUST BE ANALYZED AND FURTHER DEVELOPED BY THE DOR TO CONFORM WITH THE INSTALLATION ARCHITECTURAL THEME AS DESCRIBED IN THE INSTALLATION DESIGN GUIDE AND OTHER DESIGN REQUIREMENTS.
2	THE INTENT TO ALLOW DESIGNERS THE FLEXIBILITY IN AESTHETIC DESIGN WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE BUILDING PLAN. THERMAL PROTECTION ALONG WITH DURABLE INTERIOR AND EXTERIOR WALL SURFACES WITH APPROPRIATE AESTHETIC QUALITIES must BE GIVEN PRIORITY TO CREATE SUSTAINABLE AND FUNCTIONAL ARCHITECTIURE.
3	BUILDING HEIGHTS SHOWN ON THE ELEVATIOINS ARE FOR ILLUSTRATION ONLY. BUILDING HEIGHTS must BE DETERMINED BY THE DESIGNER, MAINTAING MIN CEILING AND CLEAR HEIGHTS INDICATED IN THE FINISH SCHEDULE IN THE DRAWINGS, AND TO PROVIDE ADEQUATE SPACE FOR UTILITIES AND STRUCTURE ABOVE FINISH CEILINGS AND ABOVE REQUIRED CLEAR HEIGHTS WHERE STRUCTURE IS EXPOSED.
4	SEE APPENDIX IN THE RFP FOR INSTALLATION'S ARCHITECTURAL THEME INCLUDING EXTERIOR COLORS AND MATERIALS.
5	WINDOWS SHOWN ARE THE MINIMUM REQUIRED. DOR must DETERMINE THE LARGEST FEASIBLE WINDOW CONSIDERING CLIMATE, DAY LIGHTING, AND AESTHETICS.

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OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM

(LARGE) DINING FACILITY
EXTERIOR ELEVATIONS

SHEET ID
LGDF
A-025

EQUIPMENT SCHEDULE			
ITEM	CLASS	QTY	DESCRIPTION
2	C	1	RECEIVING DESK AND CHAIR
5	C	33	MOBILE SHELVING UNIT 24 X 54
6	A	1	WALK IN FREEZER CONDENSING UNIT
6a	A	1	WALK-IN FREEZER UNIT COOLER
7	A	2	WALK IN COOLER CONDENSING UNIT
7a	A	2	WALK-IN COOLER UNIT COOLER
8	A	3	WALK IN DOOR CLOSURE
9	A	4	FAUCET HOSE STATION
10	A	1	WALK IN COOLER/COOLER/FREEZER COMBINATION
11	A	1	AIR CURTAIN - 72 in
11a	A	3	AIR CURTAIN 72in
13a	C	4	CART
14	A	1	VEGETABLE PREP SINK
15	A	2	GARBAGE DISPOSAL - 5 HP
16	A	2	2 - SECTION ROLL-THRU REFRIDGERATOR
16a	A	1	2 - SECTION ROLL-IN REFRIDGERATOR
16b	A	10	ROLL IN RACK
17	A	5	WORK TABLE ON CASTERS
18	A	4	PORTABLE WORK TABLE
19	A	3	EQUIPMENT STAND
20	A	2	TRACK SHELVING
21	A	1	TABLE WITH SINK
22	C	2	SLICER
23	A	1	VEGETABLE PEELER
23a	A	1	GARBAGE DISPOSER
24	A	2	PULPER
24a	A	2	PULPER CONTROL PANEL
25	C	1	FOOD PROCESSOR
26	A	1	POT RACK
27	A	1	6 BURNER GAS RANGE
28	A	2	TILT SKILLET
30	A	2	FLOOR TROUGH
32	A	3	DOUBLE DECK CONVECTION OVEN
33	C	2	CAN OPENER
34	A	1	60 QT FLOOR MIXER
35	C	1	20 QT MIXER
36	A	2	40 GALLON KETTLE
38	A	1	TWIN 12 - GALLON KETTLE ON STAND
39	A	2	EXHAUST HOOD - ISLAND TYPE
39a	A	2	HOOD CONTROL PANEL FOR ITEM 39
40	A	3	FLOOR TROUGH
41	A	2	FIRE SUPPRESSION SYSTEM FOR ITEM 39
41a	A	4	FIRE SUPPRESSION PULL STATION FOR ITEM 39
43	A	1	TWO BANK FRY SYSTEM
44	A	1	FILTER STATION
46	C	1	BAKERS TABLE
47	A	2	STEAMER
47a	A	2	WATER FILTER
48	A	10	HAND SINK
49	C	3	INGREDIENT BINS
51	A	1	POT AND PAN SINK
51a	A	1	BOOSTER HEATER
51b	A	2	FAUCET
52	A	6	PRE RINSE SPRAY
53	A	1	EXHAUST HOOD
54	A	1	SINK HEATER
56	C	8	PORTABLE PAN STORAGE
57	A	4	HEAD COUNT STATION - REFER TO DIVISION 6
58	A	4	PORTABLE SALAD BAR COUNTER
58a	A	4	FOOD SHIELD WITH LIGHTS
59	A	2	PORTABLE SOUP STATIONS
59a	A	2	FOOD SHIELD WITH LIGHTS
60	A	2	BREAD DISPLAY
60a	A	1	BREAD DISPLAY WITH LIGHTS

EQUIPMENT SCHEDULE			
ITEM	CLASS	QTY	DESCRIPTION
62	C	10	PLATE DISPENSER
64	A	2	PORTABLE 'FITNESS BAR' COUNTER
64a	A	2	TRAY SLIDE
66	A	6	PROTECTOR CASE
67	A	6	PORTABLE HOT / GRILL COUNTER
68	C	14	DINNER PLATE DISPENSER
69	A	2	GAS GRIDDLE
70	C	2	GRIDDLE STAND
70a	A	4	SPLASH GUARD
71	A	2	EXHAUST HOOD
71a	A	2	HOOD CONTROL PANEL FOR ITEM 71
72	A	2	FIRE SUPPRESSION SYSTEM FOR ITEM 71
72a	A	2	FIRE SUPPRESSION PULL STATION FOR ITEM 71
73	A	2	2 - SECTION ROLL-THRU HEATED CABINET
74	C	2	PASTRY STORAGE CABINET
75	A	2	PORTABLE DESSERT COUNTER
75a	A	2	FOOD SHIELD WITH LIGHTS
77a	A	3	TRAY SLIDE
79	C	2	CONVEYOR TOASTER
80	A	2	BEVERAGE COUNTER
82	C	2	JUICE DISPENSER
83	A	2	SANDWICH UNIT
84	L	2	ICE / BEVERAGE DISPENSER - VENDOR FURNISHED
87	C	2	MILK DISPENSER
88	C	4	CUP / GLASS DISPENSER
89	A	1	BREAD COUNTER
90	A	2	CONDIMENT BIN
91	A	2	FLOOR TROUGH
92	A	2	ICE MAKER WITH BIN
94	L	1	CO2 TANKS - VENDOR FURNISHED
94a	L	1	CO2 TANK REMOTE FILL STATION - VENDOR FURNISHED
94b	C	1	CO2 TANK STORAGE RACK
95	L	2	COFFEE BREWER - VENDOR FURNISHED
96	A	1	AUTOMATIC COFFEE URN
97	A	1	URN STAND
98	L	1	BULK JUICE DISPENSOR - VENDOR FURNISHED
99	L	2	CAPPUCINO DISPENSOR - VENDOR FURNISHED
100	L	2	ICE CREAM CABINET - VENDOR FURNISHED
101	A	2	TRAY RETURN CONVEYOR
102	A	2	ROLLER CONVEYOR TABLE
104	A	1	WAREWASHER
105	C	2	PULP CONTAINER
106	C	3	RACK DOLLY
107	A	2	VENT DUCT EXTENSION
108	A	4	SOAK SINK
109	A	3	CUSTODIAL SINK - REFER TO DIVISION 22
110	A	2	RACK ROLLER CONVEYOR
111	A	1	BOOSTER HEATER
112	A	1	CLEAN DISH TABLE WITH ROLLER CONVEYOR
113	C	1	CLEANING / SANITIZING MACHINE
114	C	2	DISH CART
115	A	1	FLOOR TROUGH
116	A	2	WALL MOUNTED SHELF
117	C	6	TRAY & FLATWARE DISPENSOR
118	L	3	BREAD RACK - VENDOR FURNISHED
119	C	1	PROOFING CABINET
120	L	3	SYRUP BOX RACKS - VENDOR FURNISHED
122	C	6	OPEN RACK
124	C	6	UTLITY CART
125	A	1	COOK AND HOLD CABINET
126	A	1	PREP SINK
157	A	14	FLOOR TROUGH
162	A	2	STAINLESS STEEL ANGLED WALL CAP
165	A	1	ROLL-IN COMBINATIONM STEAMER / OVEN

FINISH SCHEDULE

ROOM NAME	ROOM NO.	FINISH				MIN. CEILING HEIGHT	NET SF	NOTES
		FLOOR	BASE	WALL	CEILING			
DINING AREA								
ENTRY VESTIBULE	130	PT	PT	GWB	ACT	9' - 0"	125 SF	
QUEUE	131	PT	PT	GWB	ACT	9' - 0"	316 SF	
SERVING	132	QT	QT	CT	WACT	9' - 0"	466 SF	
WOMEN	133	PT	PT	CT	MRG	8' - 0"	242 SF	
DINING	134	PT	PT	GWB	ACT	9' - 0"	3999 SF	
CIRCULATION	135	PT	PT	CT	ACT	9' - 0"	1132 SF	
SELF SERVICE	136	QT	QT	CT	ACT	9' - 0"	274 SF	
JAN	137	QT	QT	CT	MRG	9' - 0"	48 SF	
SODA	138	QT	QT	CT	WACT	9' - 0"	49 SF	
DISHWASH	139	QT	QT	CT	WACT	10' - 0"	657 SF	
ENTRY VESTIBULE	140	PT	PT	GWB	ACT	9' - 0"	84 SF	
QUEUE	141	PT	PT	GWB	ACT	9' - 0"	293 SF	
SERVING	142	QT	QT	CT	WACT	9' - 0"	419 SF	
MEN	143	PT	PT	CT	MRG	8' - 0"	242 SF	
DINING	144	PT	PT	GWB	ACT	9' - 0"	3782 SF	
EXIT VESTIBULE	145	PT	PT	CTW/GWB	GWB	9' - 0"	110 SF	
KITCHEN AREA								
RECEIVING	110	QT	QT	CT	MRG/ EP	9' - 0"	127 SF	
CAN WASH	111	QT	QT	CT/ EMG	MRG/ EP	8' - 0"	133 SF	
DRY STORAGE	112	QT	QT	GWB	GWB	9' - 0"	494 SF	
LOCKERS	113	PT	PT	CT	ACT	9' - 0"	120 SF	
UNI SHWR	114	PT	PT	CT	MRG	9' - 0"	42 SF	
MEN TOILET	115	PT	PT	CT	MRG	9' - 0"	39 SF	
WOMEN TOILET	116	PT	PT	CT	MRG	9' - 0"	39 SF	
JAN	117	QT	QT	CT/ EMG	MRG/ EP	8' - 0"	42 SF	
MGR OFFICE	118	VCT	RB	GWB	ACT	9' - 0"	134 SF	
ADMIN OFFICE	119	VCT	RB	GWB	ACT	9' - 0"	188 SF	
KITCHEN	120	QT	QT	CT	WACT	9' - 0"	2996 SF	
COLD STORAGE	124	CONC	PP	PP	PP	9' - 0"	166 SF	
COLD STORAGE	125	CONC	PP	PP	PP	9' - 0"	166 SF	
COLD STORAGE	126	CONC	PP	PP	PP	9' - 0"	166 SF	
SERVICE								
COMM	121	CONC	RB	GWB	GWB	9' - 0"	220 SF	MIN RM SIZE = 1.1% GROSS BLDG AREA
ELECTRICAL	122	CONC	RB	GWB	EXP	9' - 0"	198 SF	
MECHANICAL	123	CONC	RB	GWB	EXP	9' - 0"	934 SF	

FINISH LEGEND

ACT	2'-0" x 2'-0" ACOUSTICAL TILE CEILING
CMU	PAINTED CMU
CONC	SMOOTH, SEALED CONCRETE
CT	CERAMIC TILE
CTW	CERAMIC TILE WAINSCOT, 4'-0" AFF
EMG	EPOXY MORTAR GROUT
EP	EPOXY PAINT
EXP	EXPOSED, PAINTED STRUCTURE & DECK
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD, PAINTED
PP	PRE FABRICATED PANELS
PT	PORCELAN OR STONE TILE
QT	QUARRY TILE
RB	RUBBER BASE
WACT	2'-0" x 2'-0" ACT W/ WASHABLE & SCRUBBABLE SURFACE MEETING USDA/FSIS GUIDELINES FOR FOOD PROCESSING USE.

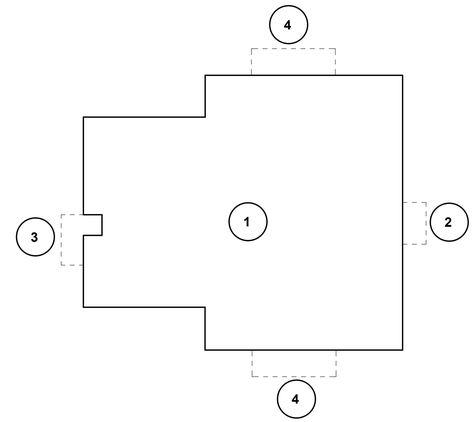
FINISH NOTES

1	SEE MINIMUM ROOM FINISHES IN APPLICABLE APPENDIX, ADDITIONAL DFAC FUNCTIONAL REQUIREMENTS.
2	PROPOSED NET SF SHOWN IS AS REFLECTED IN THE STANDSRD FLOOR PLAN. FLOOR AREAS MAY CHANGE TO ALLOW FOR ADJUSTMENTS DUE TO STRUCTURAL, UTILITIES AND CODE REQUIREMENTS, WITHOUT AFFECTING FUNCTION.
3	WHERE WIRE MESH PARTITIONS ARE REQUIRED PROVIDE SECURE ENCLOSURE BY EITHER ATTACHING TO BUILDING STRUCTURE OR ADJACENT WALL.CEILING.
4	SEE APPLICABLE APPENDIX, "PRELIMINARY FF&E INFORMATION" FOR FURNITURE AND EQUIPMENT SYMBOLS AND TAGS SHOWN ON THE FLOOR PLAN.

AREA CALCULATIONS

FLOOR PLAN GROSS AREA CALCS

1	BUILDING AREA AT FULL VALUE		20,020 SF
	EXTERIOR COVERED AREA AT HALF VALUE:		
2	EXIT COVERED AREA	(192 X 1/2) =	96 SF
3	LOADING DOCK	(330 X 1/2)=	165 SF
4	COVERED QUEUING	[(505 X 2) X 1/2]=	505 SF
	EXTERIOR COVERED SUBTOTAL		766 SF
	BUILDING TOTAL GROSS AREA		**20,786 SF**



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DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
(LARGE) DINING FACILITY
EQUIPMENT SCHEDULE

SHEET ID
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A-026

US Army Corps of Engineers ®
LOUISVILLE DISTRICT

DEPARTMENT OF THE ARMY
FACILITIES STANDARDIZATION PROGRAM
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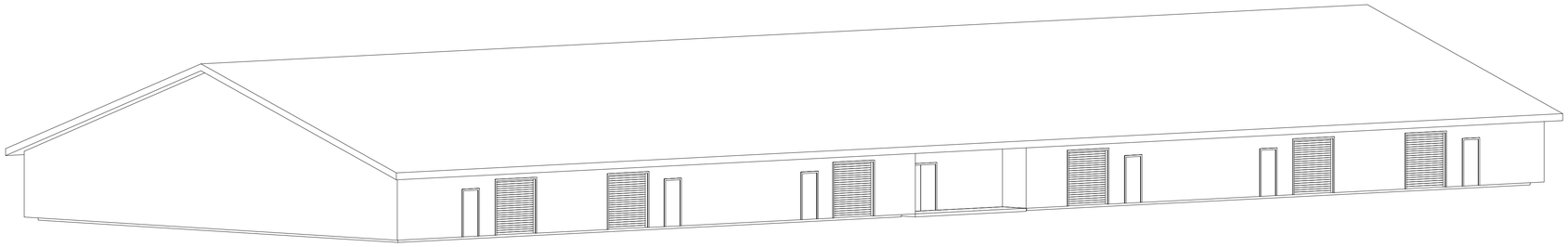
COMPANY HEADQUARTERS :
TRANSIENT TRAINING



INDEX OF DRAWINGS

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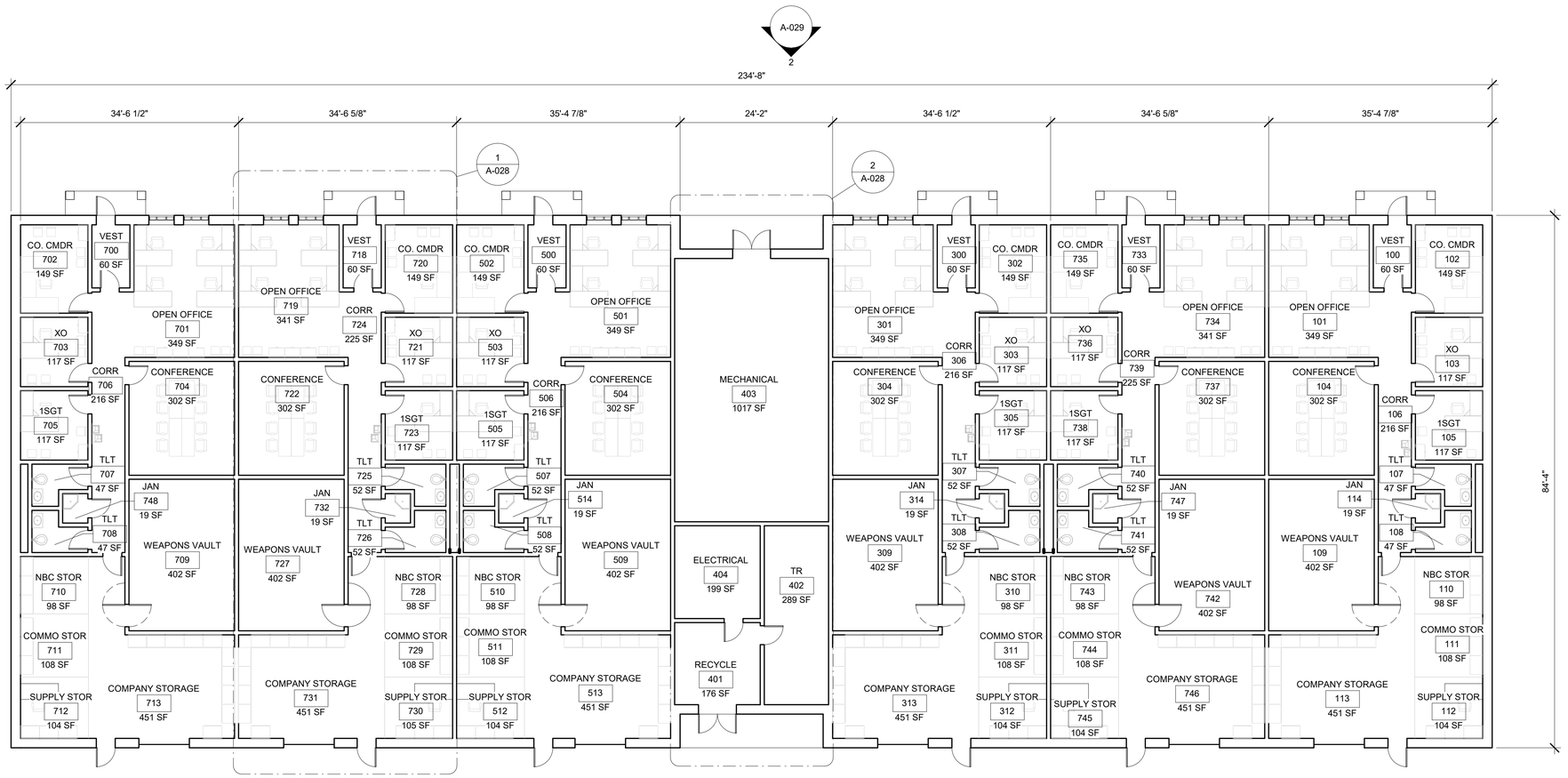
STANDARD DESIGN

DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

COMPANY HEADQUARTERS
COVER SHEET

SHEET ID
COHQ
G-027



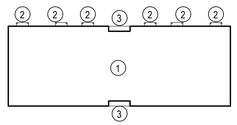
1 A-027

COMPANY HEADQUARTERS FIRST FLOOR PLAN

3/32" = 1'-0"

AREA CALCULATIONS

BUILDING AREA AT FULL VALUE:		19,344 SF
EXTERIOR COVERED ARE AT HALF VALUE:		
PORCHES	[(50X6) X 1/2] =	150 SF
EXIT COVERED AREA	[(100 + 70) X 1/2] =	85 SF
	EXTERIOR COVERED SUBTOTAL:	235 SF
	BUILDING TOTAL GROSS AREA:	19,579 SF



US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

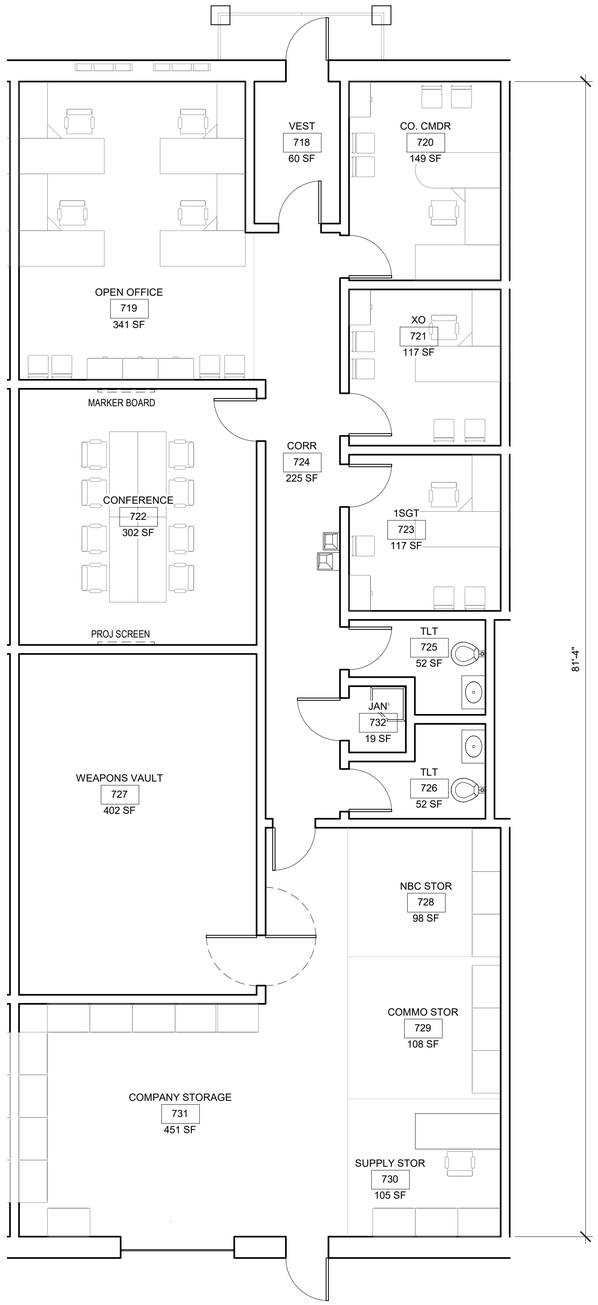
ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

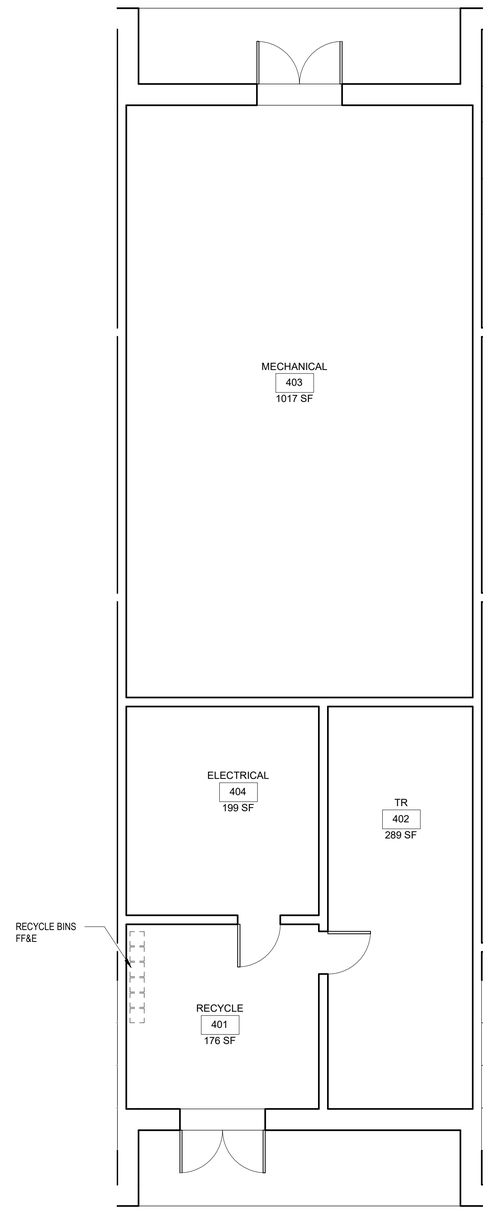
DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
COMPANY HEADQUARTERS
FIRST FLOOR PLAN

SHEET ID
COHQ
A-027



1 A-028 COMPANY HEADQUARTERS - OFFICE MODULE

3/16" = 1'-0"



2 A-028 COMPANY HEADQUARTERS - SERVICE MODULE

3/16" = 1'-0"

COMPANY HEADQUARTERS - FINISH SCHEDULE

ROOM NAME	FINISH FLOOR	BASE	WALL	CLNG.	CEILING HEIGHT	MIN. STC	Area	NOTES
JAN							19 SF	
COMMAND SUITE								
1SGT	CONC.	RB	GWB	ACT	9'-0"	45	117 SF	
CO. CMDR	CONC.	RB	GWB	ACT	9'-0"	-	149 SF	
CONFERENCE	CONC.	RB	GWB	ACT	9'-0"	45	302 SF	
CORR	CONC.	RB	GWB	ACT	9'-0"	-		
JAN	CONC.	RB	MRG	MRG	8'-0"	-	19 SF	
OPEN OFFICE	CONC.	RB	GWB	ACT	9'-0"	45		
TLT	CONC.	RB	MRG	MRG	8'-0"	45		
VEST	CONC.	RB	GWB	ACT	9'-0"	-	60 SF	
XO	CONC.	RB	GWB	ACT	9'-0"	45	117 SF	
SERVICE								
ELECTRICAL	CONC.	-	CMU	EXP	9'-0"	-	199 SF	
MECHANICAL	CONC.	-	CMU	EXP	9'-0"	-	1017 SF	
RECYCLE	CONC.	-	CMU	MRG	9'-0"	-	176 SF	
TR	CONC.	-	CMU	GWB	9'-0"	-	289 SF	MIN RM SIZE = 1.1% OF BLDG GROSS AREA
SOLDIER SERVICES								
COMMO STOR	CONC.	-	CMU	EXP	10'-0"	-	108 SF	
COMPANY STORAGE	CONC.	-	CMU	EXP	10'-0"	-	451 SF	
NBC STOR	CONC.	-	CMU	EXP	10'-0"	-	98 SF	
SUPPLY STOR	CONC.	-	CMU	EXP	10'-0"	-		
WEAPONS VAULT	CONC.	-	**	**	9'-0"	-	402 SF	DESIGN PER AR 190-11, **

FINISH LEGEND

ACT	2'-0" X 2'-0" ACOUSTIC CEILING TILE
CMU	PAINTED CONCRETE MASONRY UNIT
CONC	SEALED CONCRETE
EXP	EXPOSED PAINTED STRUCTURE
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD PAINTED
RB	RUBBER BASE

FINISH NOTES

1	ROOM FINISH SHOWN ARE MINIMUM REQUIRED
2	PROPOSED NET SF SHOWN IS AS REFLECTED IN THE STANDARD FLOOR PLAN. FLOOR AREAS MAY CHANGE TO ALLOW FOR ADJUSTMENTS DUE TO STRUCTURAL, UTILITIES AND CODE REQUIREMENTS, WITHOUT AFFECTING FUNCTION.
3	WHERE WIRE MESH PARTITIONS ARE REQUIRED PROVIDE SECURE ENCLOSURE BY EITHER ATTACHING TO BUILDING STRUCTURE OR ADJACENT WALL CEILING.
4	SEE APPLICABLE APPENDIX, "PRELIMINARY FF&E INFORMATION" FOR FURNITURE AND EQUIPMENT SYMBOLS AND TAGS SHOWN ON THE FLOOR PLAN.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

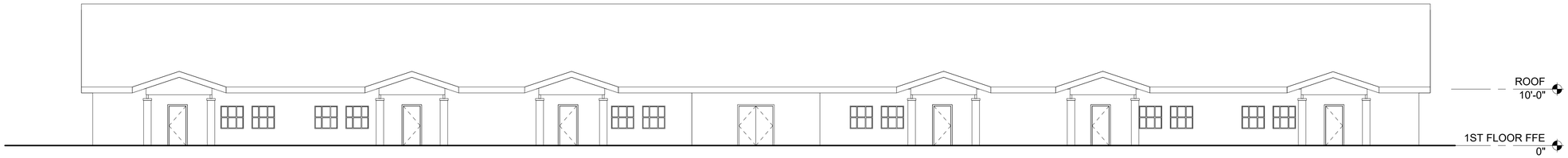
US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
COMPANY HEADQUARTERS
ENLARGED PLANS

SHEET ID
COHQ
A-028

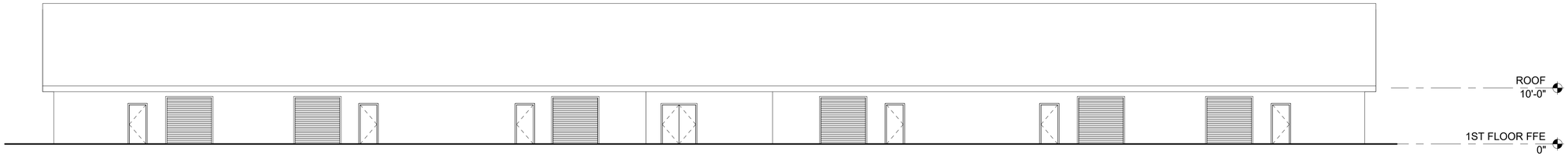
ELEVATION DESIGN NOTES	
1	THE EXTERIOR ELEVATIONS ILLUSTRATE MASSING NOT MANDATING PARTICULAR ARCHITECTURAL THEME OR ANY SPECIFIC MATERIALS. THE SELECTION OF MATERIALS FOR THE EXTERIOR ENVELOPE MUST BE GUIDED BY LOCAL CLIMATIC AND GEOGRAPHIC CONDITIONS, LOCAL CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS. THE EXTERIOR ENVELOPE MUST BE ANALYZED AND FURTHER DEVELOPED BY THE DOR TO CONFORM WITH THE INSTALLATION ARCHITECTURAL THEME AS DESCRIBED IN THE INSTALLATION DESIGN GUIDE AND OTHER DESIGN REQUIREMENTS.
2	THE INTENT TO ALLOW DESIGNERS THE FLEXIBILITY IN AESTHETIC DESIGN WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE BUILDING PLAN. THERMAL PROTECTION ALONG WITH DURABLE INTERIOR AND EXTERIOR WALL SURFACES WITH APPROPRIATE AESTHETIC QUALITIES MUST BE GIVEN PRIORITY TO CREATE SUSTAINABLE AND FUNCTIONAL ARCHITECTIURE.
3	BUILDING HEIGHTS SHOWN ON THE ELEVATIOINS ARE FOR ILLUSTRATION ONLY. BUILDING HEIGHTS MUST BE DETERMINED BY THE DESIGNER, MAINTAING MIN CEILING AND CLEAR HEIGHTS INDICATED IN THE FINISH SCHEDULE IN THE DRAWINGS, AND TO PROVIDE ADEQUATE SPACE FOR UTILITIES AND STRUCTURE ABOVE FINISH CEILINGS AND ABOVE REQUIRED CLEAR HEIGHTS WHERE STRUCTURE IS EXPOSED.
4	SEE APPENDIX IN THE RFP FOR INSTALLATION'S ARCHITECTURAL THEME INCLUDING EXTERIOR COLORS AND MATERIALS.
5	WINDOWS SHOWN ARE THE MINIMUM REQUIRED. DOR MUST DETERMINE THE LARGEST FEASIBLE WINDOW CONSIDERING CLIMATE, DAY LIGHTING, AND AESTHETICS.



2 A-029

COMPANY HEADQUARTERS EXTERIOR ELEVATION

3/32" = 1'-0"



1 A-029

COMPANY HEADQUARTERS EXTERIOR ELEVATION

3/32" = 1'-0"

US Army Corps of Engineers ®

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CHECKED BY: JJS
SUBMITTED BY:
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SOLICITATION NO.:
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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
COMPANY HEADQUARTERS
EXTERIOR ELEVATIONS

SHEET ID
COHQ
A-029

US Army Corps of Engineers ®
LOUISVILLE DISTRICT

DEPARTMENT OF THE ARMY FACILITIES STANDARDIZATION PROGRAM (ORTC) STANDARD DESIGN V4.8 VEHICLE MAINTENANCE SHOP : TRANSIENT TRAINING

INDEX OF DRAWINGS

ADAPTATION OF THE STANDARD DESIGN:

THE GENERAL ARRANGEMENT OF SPACES AND THE RELATIONSHIP OF FUNCTIONAL GROUPS TO ONE ANOTHER ARE MANDATORY. MINOR VARIATIONS IN THE BASIC DESIGN FORMS FOR THE BUILDING SHOWN IN THIS STANDARD ARE PERMISSIBLE AS DETERMINED BY THE CENTER OF STANDARDIZATION (COS), TO ACCOMMODATE MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS.

MODULAR/PRE-FABRICATED CONSTRUCTION PROCESSES AND MATERIALS ARE ENCOURAGED; HOWEVER, THERE MUST BE NO LOSS IN DURABILITY DUE TO THE USE OF THESE SYSTEMS AS DETERMINED BY THE COS AND AS COMPARED TO THE TYPICAL CONSTRUCTION SYSTEMS AND FINISHES INDICATED WITHIN THIS PACKAGE.

MATERIAL SELECTIONS, EXTERIOR/INTERIOR DESIGN DETAILS, MECHANICAL, ELECTRICAL, AND STRUCTURAL SYSTEMS DESIGN MAY VARY IN RESPONSE TO LOCAL CLIMATIC AND GEOGRAPHICAL CONDITIONS, LOCAL CONSTRUCTION PRACTICES, AVAILABILITY OF CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS.

THE STANDARD DESIGN REQUIREMENTS AND THE INSTALLATION ARCHITECTURAL THEME MUST BE ANALYZED BY THE INSTALLATION IN CONJUNCTION WITH THE DESIGN AGENT TO ASSURE CONFORMANCE.

BUILDING ELEVATIONS SHOWN ILLUSTRATE POSSIBLE DESIGN SOLUTIONS AND ARE NOT MANDATED. THE INTENT IS TO ALLOW DESIGNERS FLEXIBILITY CONSISTENT WITH THE INSTALLATION DESIGN GUIDE, WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE FACILITY TYPE.

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DRAWING DISCLAIMER:

THE CONCEPTUAL PLANS INCLUDED IN THIS PACKAGE ARE SUBJECT TO CHANGE WITHOUT NOTICE. DESIGNERS AND OTHER STAKE HOLDERS ARE HEREBY DIRECTED TO ENSURE THEY HOLD THE LATEST UPDATE. CONTACT THE LOUISVILLE DISTRICT CENTER OF STANDARDIZATION (COS) FOR ANY INFORMATION REGARDING THE STANDARDS.
SEE WEBSITE: https://mrsi.erdc.dren.mil/cos/lrl/ortc/

DATED: VERSION 4.7, FEBRUARY 2020

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:
DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

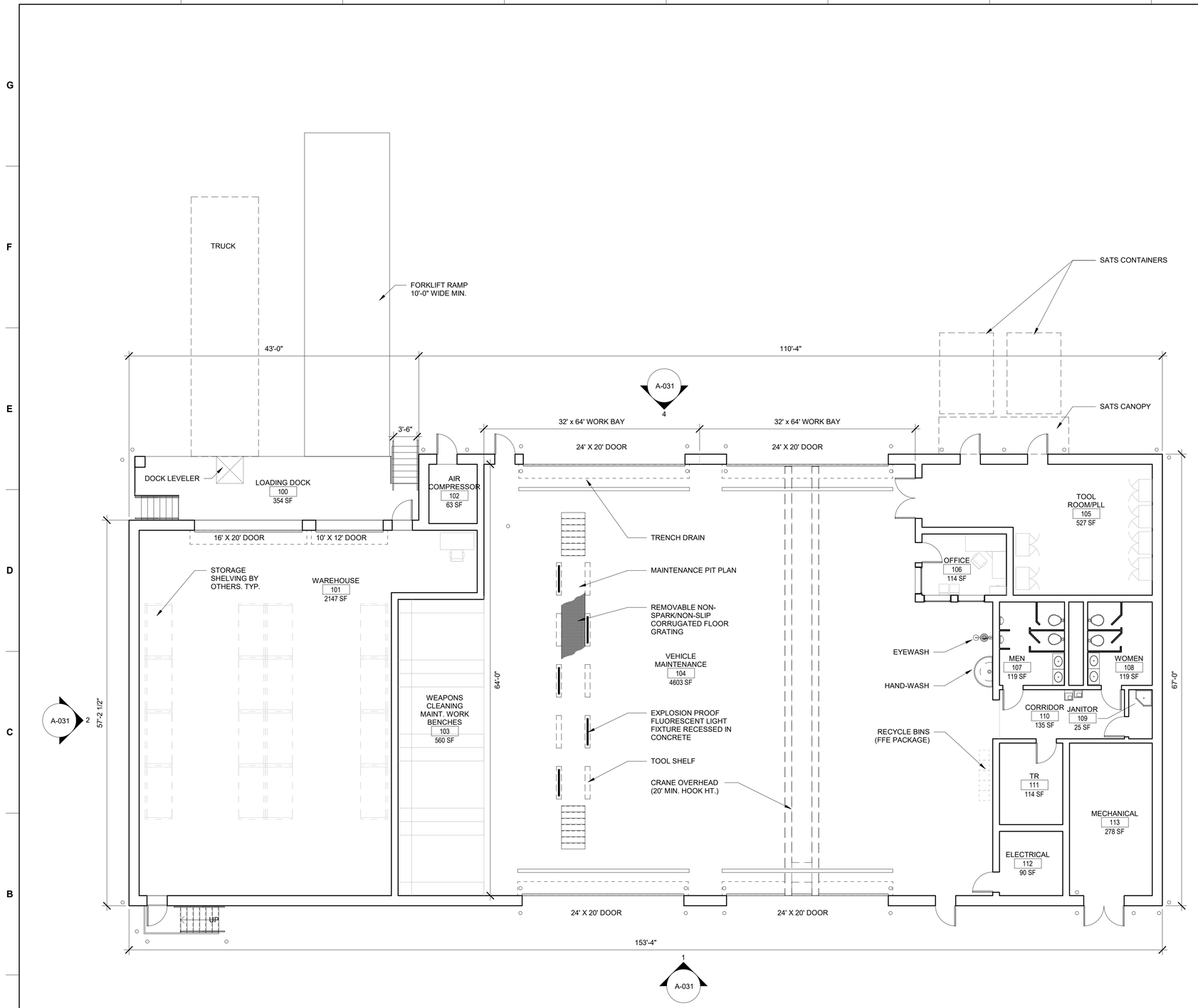
OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

VEHICLE MAINTENANCE SHOP

COVER SHEET

SHEET ID
VMS
G-030



1 A-030 VEHICLE MAINTENANCE SHOP FLOOR PLAN

1/8" = 1'-0"

FINISH SCHEDULE									
ROOM NO.	ROOM NAME	FLOOR	BASE	WALL	CEILING MAT	CEILING MIN. CLNG HEIGHT	STC MIN	NET SF	NOTES
101	WAREHOUSE	CONC		CMU	EXP	14'-0"		2147 SF	
102	AIR COMPRESSOR	CONC		CMU	MTL	9'-0"		63 SF	
103	WEAPONS CLEANING MAINT. WORK BENCHES	CONC		CMU	EXP	10'-0"		560 SF	
104	VEHICLE MAINTENANCE	CONC		CMU	EXP			4603 SF	MIN. 20' CRANE HOOK HT.
105	TOOL ROOM/PLL	CONC		CMU	EXP	10'-0"		527 SF	
106	OFFICE	CONC		CMU	ACT	9'-0"	45	114 SF	
107	MEN	CONC		CMU	MRG	9'-0"		119 SF	
108	WOMEN	CONC		CMU	MRG	9'-0"		119 SF	
109	JANITOR	CONC		CMU	MRG	9'-0"		25 SF	
110	CORRIDOR	CONC		CMU	ACT	9'-0"		135 SF	
111	TR	CONC		CMU	GWB	9'-0"		114 SF	MIN. RM SIZE = 1.1% BLDG GROSS AREA
112	ELECTRICAL	CONC		CMU	EXP	9'-0"		90 SF	
113	MECHANICAL	CONC		CMU	EXP	9'-0"		278 SF	
100	LOADING DOCK	CONC						354 SF	

FINISH LEGEND	
ACT	2'-0" X 2'-0" ACOUSTIC CEILING TILE
CMU	PAINTED CONCRETE MASONRY UNIT
CONC	SEALED CONCRETE
EXP	EXPOSED PAINTED STRUCTURE
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD PAINTED
RB	RUBBER BASE

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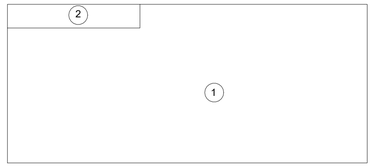
AREA CALCULATIONS



FLOOR PLAN GROSS AREA CALCS

1	BUILDING AREA AT FULL VALUE	9,846 SF
	EXTERIOR COVERED AREA AT HALF VALUE:	
2	LOADING DOCK: (354 X 1/2) =	177 SF
	BUILDING TOTAL GROSS AREA :	10,200 SF

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

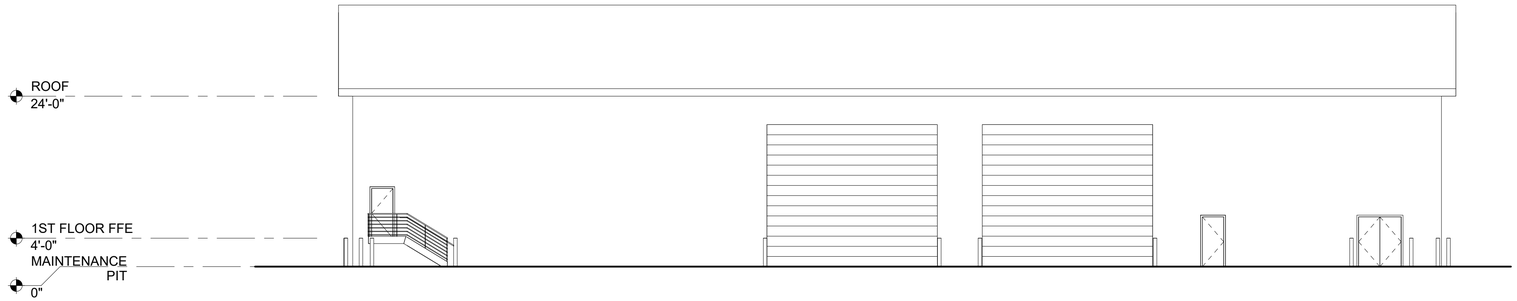
DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
VEHICLE MAINTENANCE SHOP
FLOOR PLAN

SHEET ID
VMS
A-030



1 A-031 — VEHICLE MAINTENANCE SHOP ELEVATION

3/32" = 1'-0"

ELEVATION DESIGN NOTES

1	THE EXTERIOR ELEVATIONS ILLUSTRATE MASSING NOT MANDATING PARTICULAR ARCHITECTURAL THEME OR ANY SPECIFIC MATERIALS. THE SELECTION OF MATERIALS FOR THE EXTERIOR ENVELOPE MUST BE GUIDED BY LOCAL CLIMATIC AND GEOGRAPHIC CONDITIONS, LOCAL CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS. THE EXTERIOR ENVELOPE MUST BE ANALYZED AND FURTHER DEVELOPED BY THE DOR TO CONFORM WITH THE INSTALLATION ARCHITECTURAL THEME AS DESCRIBED IN THE INSTALLATION DESIGN GUIDE AND OTHER DESIGN REQUIREMENTS.
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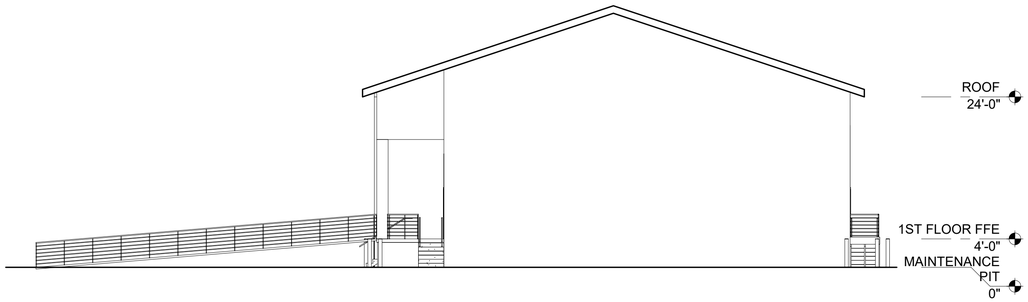

2 A-031 — VEHICLE MAINTENANCE SHOP ELEVATION

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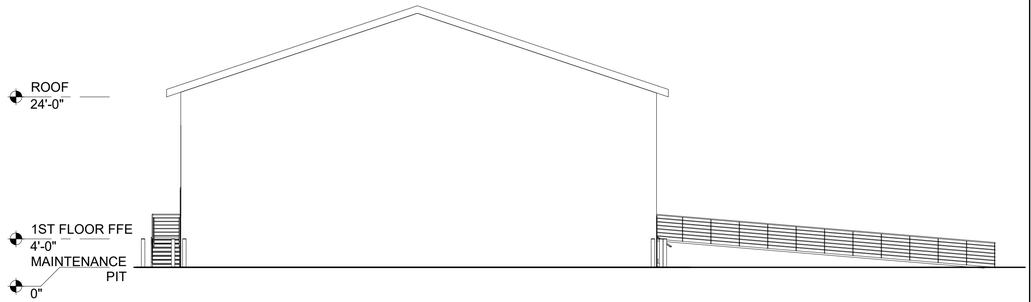

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LOUISVILLE DISTRICT
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OPERATIONAL READINESS TRAINING COMPPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM

VEHICLE MAINTENANCE SHOP

EXTERIOR ELEVATIONS

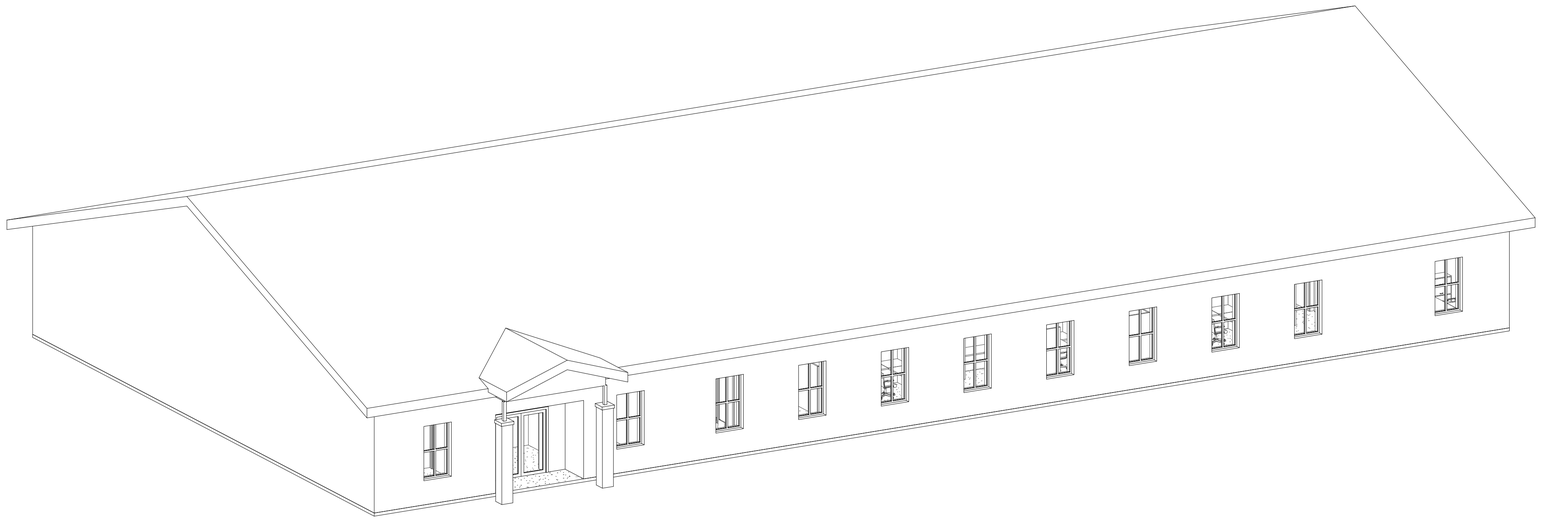
SHEET ID

VMS

A-031

US Army Corps of Engineers ®
LOUISVILLE DISTRICT

DEPARTMENT OF THE ARMY FACILITIES STANDARDIZATION PROGRAM (ORTC) STANDARD DESIGN V4.8 BRIGADE HEADQUARTERS : TRANSIENT TRAINING



INDEX OF DRAWINGS

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US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

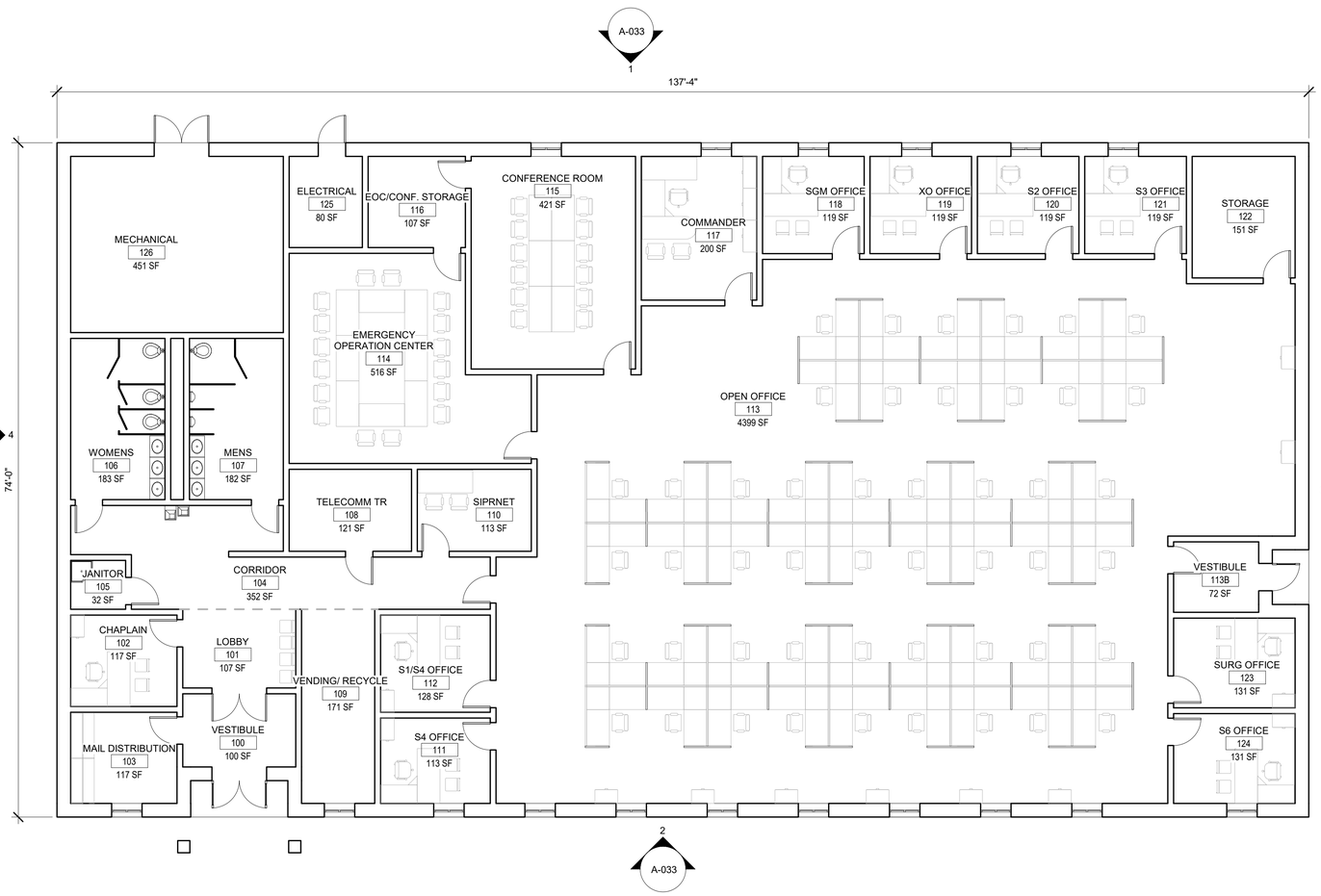
OPERATIONAL READINESS
TRAINING COMPLEX
STANDARD DESIGN

DEPARTMENT OF THE ARMY FACILITY STANDARDIZATION PROGRAM

BRIGADE HEADQUARTERS BUILDING

COVER SHEET

SHEET ID
BGHQ
G-032



1 A-032 BRIGADE HEADQUARTERS FLOOR PLAN

1/8" = 1'-0"

FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	BASE	WALL	CEILING MAT.	CEILING HEIGHT	STC MIN	Area	NOTES & REMARKS (SEE NOTES)
COMMANDERS SUITE									
111	S4 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	113 SF	
112	S1/S4 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	128 SF	
113	OPEN OFFICE	CONC	RB	GWB	ACT	9'-0"	45	4399 SF	
114	EMERGENCY OPERATION CENTER	CONC	RB	GWB	ACT	9'-0"	45	516 SF	
115	CONFERENCE ROOM	CONC	RB	GWB	ACT	9'-0"	45	421 SF	
116	EOC/CONF. STORAGE	CONC	RB	GWB	ACT	9'-0"	45	107 SF	
117	COMMANDER	CONC	RB	GWB	ACT	9'-0"	45	200 SF	
118	SGM OFFICE	CONC	RB	GWB	ACT	9'-0"	45	119 SF	
119	XO OFFICE	CONC	RB	GWB	ACT	9'-0"	45	119 SF	
120	S2 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	119 SF	
121	S3 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	119 SF	
122	STORAGE	CONC	RB	GWB	ACT	9'-0"	45	151 SF	
123	SURG OFFICE	CONC	RB	GWB	ACT	9'-0"	45	131 SF	
124	S6 OFFICE	CONC	RB	GWB	ACT	9'-0"	45	131 SF	
SERVICE									
108	TELECOMM TR	CONC	RB	GWB	ACT	9'-0"	~	121 SF	MIN RM SIZE = 1.1% OG BLDG GROSS AREA
110	SIPRNET	CONC	RB	GWB	ACT	9'-0"	~	113 SF	MIN 6'-6" X 7'-6" ROOM
125	ELECTRICAL	CONC	RB	GWB	EXP	9'-0"	~	80 SF	
126	MECHANICAL	CONC	RB	MRG	EXP	9'-0"	45	451 SF	
SOLDIER SERVICES									
100	VESTIBULE	CONC	RB	GWB	GWB	9'-0"	~	100 SF	
101	LOBBY	CONC	RB	GWB	ACT	9'-0"	~	107 SF	
102	CHAPLAIN	CONC	RB	GWB	ACT	9'-0"	45	117 SF	
103	MAIL DISTRIBUTION	CONC	RB	GWB	GWB	9'-0"	45	117 SF	
104	CORRIDOR	CONC	RB	GWB	ACT	9'-0"	45	352 SF	
105	JANITOR	CONC	RB	MRG	MRG	9'-0"	~	32 SF	
106	WOMENS	CONC	RB	MRG	MRG	9'-0"	45	183 SF	
107	MENS	CONC	RB	MRG	MRG	9'-0"	45	182 SF	
109	VENDING/ RECYCLE	CONC	RB	GWB	ACT	9'-0"	~	171 SF	
113B	VESTIBULE	CONC	RB	GWB	GWB	9'-0"	~	72 SF	

FINISH LEGEND

ACT	2'-0" X 2'-0" ACOUSTIC CEILING TILE
CMU	PAINTED CONCRETE MASONRY UNIT
CONC	SEALED CONCRETE
EXP	EXPOSED PAINTED STRUCTURE
GWB	PAINTED GYPSUM WALL BOARD
MRG	MOISTURE RESISTANT GYPSUM BOARD PAINTED
RB	RUBBER BASE

FINISH NOTES

1	ROOM FINISH SHOWN ARE MINIMUM REQUIRED
2	PROPOSED NET SF SHOWN IS AS REFLECTED IN THE STANDARD FLOOR PLAN. FLOOR AREAS MAY CHANGE TO ALLOW FOR ADJUSTMENTS DUE TO STRUCTURAL, UTILITIES AND CODE REQUIREMENTS, WITHOUT AFFECTING FUNCTION.
3	WHERE WIRE MESH PARTITIONS ARE REQUIRED PROVIDE SECURE ENCLOSURE BY EITHER ATTACHING TO BUILDING STRUCTURE OR ADJACENT WALL.CEILING.
4	SEE APPLICABLE APPENDIX, "PRELIMINARY FF&E INFORMATION" FOR FURNITURE AND EQUIPMENT SYMBOLS AND TAGS SHOWN ON THE FLOOR PLAN.

AREA CALCULATIONS

FLOOR AREA GROSS AREA CALCS

1	BUILDING AREA AT FULL VALUE		10,094 SF
	EXTERIOR COVERED AREA AT HALF VALUE		
2	PORCHES	[(165 +123) X 1/2] =	144 SF
		BUILDING TOTAL GROSS AREA	10,238 SF

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY: LJG
CHECKED BY: JJS
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: FEBRUARY 2021
SOLICITATION NO.:
CONTRACT NO.:

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR. PLACE
LOUISVILLE, KY 40202

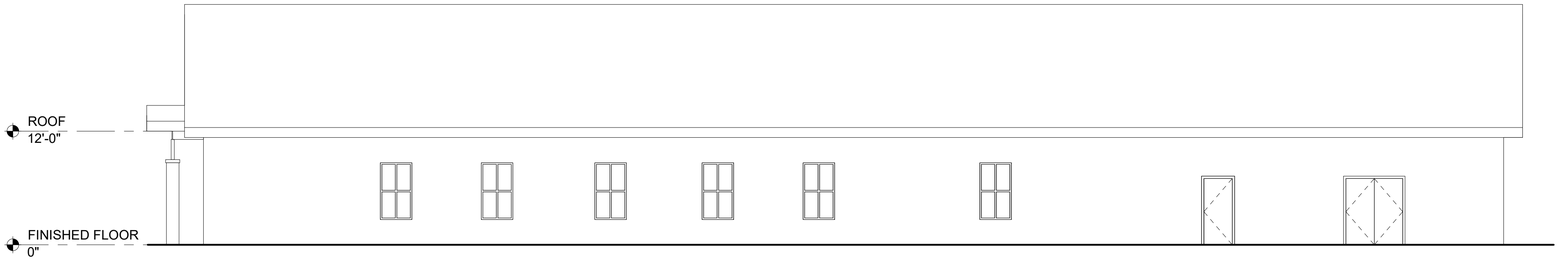
OPERATIONAL READINESS TRAINING COMPLEX STANDARD DESIGN

DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM

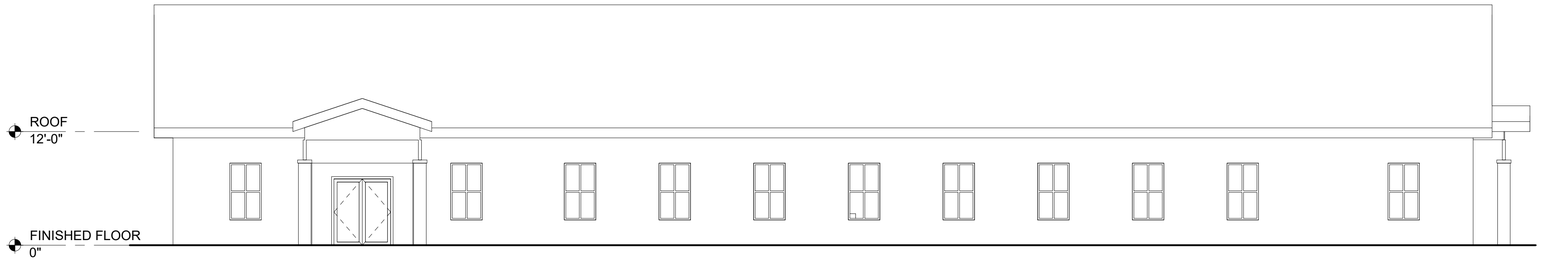
BRIGADE HEADQUARTERS BUILDING

FLOOR PLAN

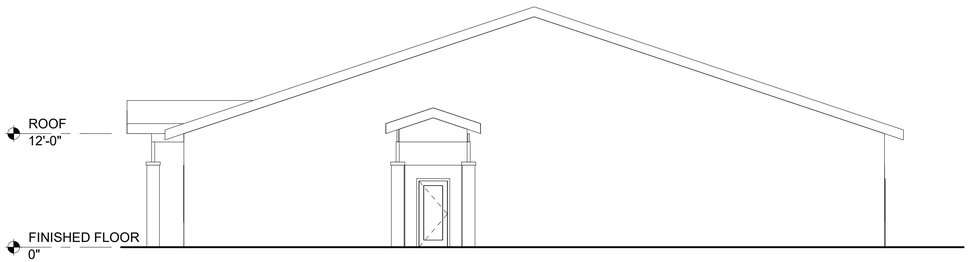
SHEET ID
BGHQ
A-032



1 A-033 BRIGADE HEADQUARTERS EXTERIOR ELEVATION
1/8" = 1'-0"



2 A-033 BRIGADE HEADQUARTERS EXTERIOR ELEVATION
1/8" = 1'-0"



3 A-033 BRIGADE HEADQUARTERS EXTERIOR ELEVATION
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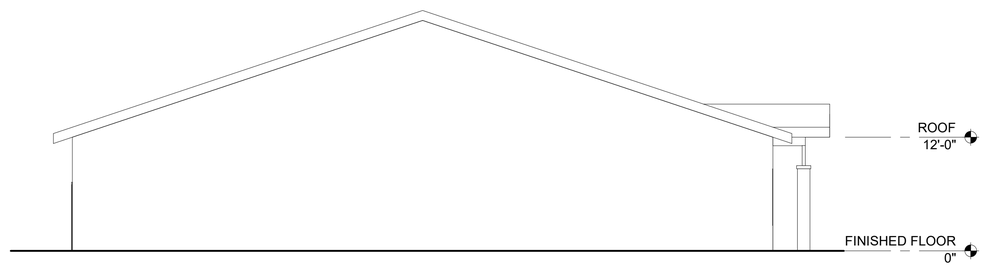

4 A-033 BRIGADE HEADQUARTERS EXTERIOR ELEVATION
1/8" = 1'-0"

ELEVATION DESIGN NOTES

1	THE EXTERIOR ELEVATIONS ILLUSTRATE MASSING NOT MANDATING PARTICULAR ARCHITECTURAL THEME OR ANY SPECIFIC MATERIALS. THE SELECTION OF MATERIALS FOR THE EXTERIOR ENVELOPE MUST BE GUIDED BY LOCAL CLIMATIC AND GEOGRAPHIC CONDITIONS, LOCAL CONSTRUCTION MATERIALS, AND OTHER ECONOMIC CONSIDERATIONS. THE EXTERIOR ENVELOPE MUST BE ANALYZED AND FURTHER DEVELOPED BY THE DOR TO CONFORM WITH THE INSTALLATION ARCHITECTURAL THEME AS DESCRIBED IN THE INSTALLATION DESIGN GUIDE AND OTHER DESIGN REQUIREMENTS.
2	THE INTENT TO ALLOW DESIGNERS THE FLEXIBILITY IN AESTHETIC DESIGN WHILE MANDATING FUNCTIONAL REQUIREMENTS FOR THE BUILDING PLAN. THERMAL PROTECTION ALONG WITH DURABLE INTERIOR AND EXTERIOR WALL SURFACES WITH APPROPRIATE AESTHETIC QUALITIES MUST BE GIVEN PRIORITY TO CREATE SUSTAINABLE AND FUNCTIONAL ARCHITECTURE.
3	BUILDING HEIGHTS SHOWN ON THE ELEVATIONS ARE FOR ILLUSTRATION ONLY. BUILDING HEIGHTS MUST BE DETERMINED BY THE DESIGNER, MAINTAING MIN CEILING AND CLEAR HEIGHTS INDICATED IN THE FINISH SCHEDULE IN THE DRAWINGS, AND TO PROVIDE ADEQUATE SPACE FOR UTILITIES AND STRUCTURE ABOVE FINISH CEILINGS AND ABOVE REQUIRED CLEAR HEIGHTS WHERE STRUCTURE IS EXPOSED.
4	SEE APPENDIX IN THE RFP FOR INSTALLATION'S ARCHITECTURAL THEME INCLUDING EXTERIOR COLORS AND MATERIALS.
5	WINDOWS SHOWN ARE THE MINIMUM REQUIRED. DOR MUST DETERMINE THE LARGEST FEASIBLE WINDOW CONSIDERING CLIMATE, DAY LIGHTING, AND AESTHETICS.WINDOWS SHOWN ARE THE MINIMUM REQUIRED. DOR MUST DETERMINE THE LARGEST FEASIBLE WINDOW CONSIDERING CLIMATE, DAY LIGHTING, AND AESTHETICS.

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DEPARTMENT OF THE ARMY
FACILITY STANDARDIZATION PROGRAM
BRIGADE HEADQUARTERS BUILDING
EXTERIOR ELEVATIONS

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