

Army Standard for Company Operations Facility (COF)

Description: The Company Operations Facility (COF) Army Standard applies to all Tables of Organization and Equipment (TOE) company, troop, battery, or detachment level organizations to meet basic command and control, unit supply operations, Soldier and unit issued equipment storage, Soldier equipment maintenance and inspection, deployment preparation, and high technology/dollar items equipment (e.g., robotics, autonomous sensors, etc.) storage activities in a unitized single structure. The COF does not apply to Tables of Distribution and Allowances (TDA) or non-deployable units of similar size that use Company Administration and Supply (CO A&S) facilities. The COF provides both the physical space and global information grid (GIG) connectivity needed to meet the Army's mission.

Applicability:

- The Company Operations Facility (hereafter referred to as the COF) Army Standard applies to the planning, design, and construction of all company echelon level organizational structures and is synonymous to a battery, troop, or detachment of similar manpower strength by Objective Table of Organization and Equipment (OTOE).
- Does not apply to Company Administration and Supply (CO A&S) facilities that do not incorporate a Readiness Module, or for aviation line companies (Company/Troop A-D) within an aviation line battalion (e.g., Assault Helicopter, Attack Helicopter, Air Cavalry Squadron, General Support Aviation Battalion, Aerial Exploitation Battalion), or training base companies addressed in other Army Standards.
- This Army Standard applies equally to Active Component Modified Tables of Organization and Equipment (TOE) unit requirements worldwide and Reserve Component MTOEs when fielded as standalone facilities other than those described above. Planning criteria for sizing these facilities do not apply to Reserve Component facilities. Instead, planning criteria are governed by the current versions of NG PAM 415-12 and AR 140-483 or successor publications.
- The standardized criteria building blocks identified as separate line items within this Army Standard shall be used to the maximum extent before creating or developing new or different criteria serving the same basic function, task, or purpose.
- Tables of Distribution and Allowance (TDA) organizations shall use the standardized criteria building blocks in this Army Standard in order to develop CO A&S applications. No Readiness Module is authorized for a TDA application without prior COF Center of Standardization (COS) or Facility Design Team (FDT) consultation prior to conducting a Requirements Analyses, developing a DD1391, or initiating job/work order task requests.
- While criteria in this Army Standard (architectural and planning) may inform facility decisions within Army Special Operations, plans for facilities supporting the Special Operations Aviation Regiment and other special operations aviation elements are controlled and approved by the Headquarters, Army Special Operations Command and the command's Deputy Chief of Staff – Engineering. Due to their unique mission and

equipment, there are significant differences from the level of the flight units to the level of depot maintenance and research and development (R&D), much of which is accomplished within the Special Operations community.

- While criteria in this Army Standard (architectural and planning) may inform facility decisions within Army Test and Evaluation Command (ATEC), plans for facilities supporting ATEC are approved by the ATEC Headquarters and their associated G-4.
- The primary source for determining unit allowances is the Real Property Planning and Analysis System (RPLANS).

Waivers:

- Approval for exceptions and waivers from Army Standards must be requested in accordance with the AR 420-1. As the proponent, DCS G3/5/7 must validate and approve the request.
- Deviations (waiver requests) from the mandatory requirements stipulated within this Army Standards must be requested in accordance with the AR 420-1 and the Army Facilities Standardization Program Charter, latest edition.
- Deviations based on gaps or shortfalls in addressing either doctrinal, functional, operational, or readiness requirements shall be forwarded through the Army chain of command to the ARSTAF Functional Proponent (ODCS, G-3/5/7) prior to submission as an Army Standard waiver request in order to expedite the review process.
- Garrison Army Standard waiver request submissions must be received in sufficient time to allow the COF FDT to complete review and development of recommendations or courses of action for the Army Facilities Standardization Committee to consider prior to implementation into project design.
- All Headquarters, Department of the Army (HQDA) approved waivers shall be documented in installation master plans thereby serving as the installations modified standards for the facility type affected.
- Late submissions and/or project delays are NOT sufficient stand-alone justification for accelerated review or other dispensation to meeting the Army Standard contained herein.

The Guidance Section provides instructions and definitions necessary for the application of the mandatory requirements contained in the tabular section of the Army Standard. As such, they are used in conjunction with the Army Standard in order to ensure the intent and embedded functionality contained herein will meet the Army's mandatory requirements set forth by this standard.

Planning Criteria:

Army Standards are not intended to provide broader design criteria such as space allocation, functional layouts, or basic layouts more appropriately contained in the supporting and conforming Standard Design / Criteria. Nor are they intended to rigidly define collective facility authorizations more appropriately adjudicated by the Army Requirements Group (ARG).

This Army Standard, associated Standard Designs, and approved Army space criteria are applied together in an iterative and co-dependent way to provide a standardized but adaptable approach to facility standardization. Each serves a different purpose to ensure mandatory functions and operability are provided uniformly and at the right size. The primary source for determining authorized allowances, in every instance, is the Real Property Planning and Analysis System (RPLANS) which incorporates current criteria approved by the ARG.

The Army Standard

Item	Mandatory Criteria
Planning	<p>The following planning considerations will be used for new construction and plant replacement of installation COFs.</p> <ol style="list-style-type: none"> 1. While Army Standard Designs for single and double Company (CO) COFs will continue to be available, the provision for standalone, single or double CO COFs is undesirable and cost prohibitive. 2. As such, all Separate Company requirements shall be met through consolidation into a double CO COF or Unified COF (UNICOF) (3-7 Companies in a single structure) configuration with all necessary provisions and interior separation for security and accountability. 3. Existing in-fill conditions shall plan to meet this requirement as plant replacement or divestiture allows for re-orientation and siting of facilities to comply with consolidation.
Site Selection	<p>Siting of the COF (specifically the Readiness Module) shall be no more than (NMT) 250 linear feet from the parent or supporting battalion Tactical Equipment Maintenance Facility (TEMF) primary structure (FCC 21410) when available.</p>
Access Security	<p>All external access points to the COF shall be positively controlled at all times via physical and mechanical means consistent with the appropriate level of security necessary for SIPR enabled facilities.</p>

<p>COF Space Allocation (General)</p>	<p>Primary facility/building is composed of two functionally different spaces, Company Administration (Admin Module) and Readiness (Readiness Module).</p> <ol style="list-style-type: none"> 1. Administrative space (Admin Module) allocated within the Admin Module shall use the standardized four (4) office planning block for either the Company Headquarters functions or subordinate Platoon Offices. 2. Private Office space is authorized for the Company Commander, Executive Officer, First Sergeant, and Training Office. 3. Platoon Offices are shared space between the Platoon Leader and Platoon Sergeant. Squad Leader counseling or protected conversations with Soldiers shall share Platoon Office space allocations as well. 4. Readiness space (Readiness Module) provides operational space considerations in addition to supply (Company Admin & Supply like that provided for aviation line companies or TDA companies). It includes deployment preparation and staging space considerations and increased unit mission equipment storage (robotic and sensor technology, Warrior ensemble, etc.). Specialized Soldier and unit mission equipment maintenance and repair activities are consolidated with vehicle maintenance skill sets located in the Tactical Equipment Maintenance Facility (TEMF), requiring close proximity between the COF Readiness Module and the associated TEMF. 5. Soldier Basic Individual Issue (CTA-50) and Special Individual Issue (e.g., mechanics and flight overalls, medical and mess personnel specialty uniforms, etc.) storage is consolidated in the Readiness Module. 6. Space allocation and utilization will be maximized when combining two or more Companies in a single structure to reduce lifecycle sustainment cost, utilization rate, and land area consumption. 7. (Separate Company Stationing) Separate CO located on a single installation shall be consolidated into either a battalion-equivalent UNICOF not to exceed (NTE) 7-COs per UNICOF, or when less than three CO are consolidated, no less than (NLT) one double CO structure. Standalone,
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	<p>single CO COFs are not authorized unless prior approval from HQ IMCOM is received. Exclusions shall be substantiated with Real Property Master Planning documentation, economic analyses, and installation maps citing compelling topographic, demographic, or geographic limitations precluding consolidation thereby incurring increased lifecycle sustainment utilities cost expenditure.</p>
Company (CO) Headquarters (Admin Module)	<p>Provide NMT one (1) administrative module (CO Admin) per company. The CO Admin Module shall consist of 5 discreet segments as indicated below.</p>
Company Office Suite (Admin Module)	<p>Provide office and administrative space in quad blocks IAW the COF Army Standard Design.</p> <p>Basis of Allocation:</p> <ul style="list-style-type: none"> - NMT one (1) quad block shall be provided for the CO Commander, Executive Officer, First Sergeant, and Training Office. - NMT one (1) quad block of Platoon Offices per Company (one office per Platoon not to exceed four Platoon offices per CO). - Additional administrative space will be provided on the mezzanine of the Readiness Module (RM) in a configuration reviewed and concurred with by the COF COS.
General Purpose Storage Room (Admin Module)	<p>Provide one (1) GP Storage Room of NMT 48 net square feet (NSF) per company. Additional storage space shall be determined in consultation with the COF COS.</p>
Printer/Copier Station (CO Admin)	<p>Provide Printer/Copier Stations NTE 48 NSF each per allocation authorization below.</p> <p>Basis of Allocation:</p> <ul style="list-style-type: none"> - NMT one (1) for every three (3) companies within a multi-company structure in a UNICOF configuration. - NMT one (1) for a single company, standalone COF.
Consolidated Showers and Latrines (Admin Module)	<p>Consolidated showers and latrines provided in this facility shall be located on the ground floor of the Admin Module. Sufficient shower stalls shall be provided to accommodate approximately 25 percent of the total number of Soldiers assigned to all companies included in the UNICOF within a 1-1/2-hour duration. Consolidated shower and latrine layouts shall be as indicated in the COF Army Standard Design.</p>
Vending/Recyclables Area (Admin Module)	<p>Provide a Vending/Recyclables Area NTE 96 NSF</p>

<p>Company Readiness Module (RM)</p>	<p>The COF Readiness Module (RM) is required for all TOE units. It is comprised of five (5) discreet space segments with varying security levels - secure storage (arms) IAW AR 190-11, non-sensitive secure storage (serial numbered, high technology, high value items) IAW AR 190-51, CBRNE storage, consumables supply storage, Soldier issue storage, deployment-layout area (preparation & staging, equipment maintenance, inspection & layout, accountability).</p>
<p>Deployment-Layout Area (RM)</p>	<p>Provide one (1) interior and one (1) exterior Deployment-Layout Area per TOE Company, Battery, Troop, or Detachment (of 50- person (PN) or more).</p> <ol style="list-style-type: none"> 1. The interior Deployment-Layout Area will be located adjacent to the Soldier equipment issue storage lockers (commonly referred to as CTA-50 lockers). 2. The exterior Deployment-Layout Area is a covered hardstand located adjacent to the exterior door of the supply area to facilitate both loading/unloading operations for deployment/redeployment and Soldier equipment maintenance, weapons and equipment cleaning, equipment inspection & layout, issue accountability inspections. <p>Basis of Allocation:</p> <ul style="list-style-type: none"> - Interior Deployment-Layout Area will be sized to NMT 40 NSF each for 50% of the assigned personnel IAW HQDA approved manning documents - Exterior Deployment-Layout Area will be sized to NMT 40 NSF each for 25% of the assigned personnel IAW HQDA approved manning documents
<p>Arms Room (RM)</p>	<p>Provide NLT one (1) Arms Room (secure storage) IAW AR 190-11 capable of holding NLT one (1) personal weapon per assigned Soldier or crew served weapons commensurate with the OTOE equipment requirements.</p> <p>Basis of Allocation:</p> <ul style="list-style-type: none"> - One (1) Arms Room NLT 400 NSF - Add 100 NSF for each additional 50 PN per CO
<p>Non-Sensitive Secure Storage Area (RM)</p>	<p>Provide NLT one (1) Non-Sensitive Secure Storage Area for serial numbered, high value, technology, and pilferable items deemed to require additional security by local Provost Marshall Risk Analyses.</p> <p>Basis of Allocation:</p> <ul style="list-style-type: none"> - One (1) Non-Sensitive Secure Storage Area NLT 166 NSF

	and NMT 170 NSF for each additional 50 PN per CO IAW the COF Army Standard Design
Communications Equipment Storage Area (RM)	Provide NMT one (1) Communication Equipment Storage Area NLT 60 NSF and NMT 94 NSF for each additional 50 PN per CO IAW the COF Army Standard Design.
Chemical, Biological, Radiological, Nuclear, Energy (CBRNE) Storage Area (RM)	Provide NMT one (1) CBRNE Storage Area NLT 60 NSF and NMT 94 NSF for each additional 50 PN per CO IAW the COF Army Standard Design.
Unit Storage (Supply Storage) (RM)	Provide NMT one (1) supply storage area NLT 230 NSF and NMT 367 NSF for each additional 50 PN per CO IAW the COF Army Standard Design.
Soldier Basic and Special Issue Storage Area (e.g., CTA-50) (RM)	Provide space for one (1) storage locker per Soldier for basic and special individual issue. Lockers shall conform to the specifications outlined in the companion Army Standard Design for the COF. When a double row of lockers are provided within the RM, a separation between rows of NLT 6 linear feet for circulation shall be provided.
Secret Internet Protocol Router Network (SIPRNET) ROOM	Provide SIPRNET connectivity capability as defined by the COF Army Standard Design and IAW the USAISEC Technical Guide for the Integration of SIPRNET.
Tele-communications	Telecommunications spaces shall be designed in accordance with TIA/EIA-569-B and the Information Infrastructure Architecture (I3A) Technical Guide. A minimum of one Telecommunications Equipment Room (TER)/Computer Room shall be provided to house telecommunications equipment supporting the unclassified, SECRET, and TS levels. Telecommunications infrastructure, cabling, outside plant connectivity and outlets will be designed and allocated IAW ISEC (NSA, and DISA for select Cyber/Intel COs) guidance consistent with the Army Installation Information Infrastructure (I3A) Provide Non-secure and secure internet protocol network (NIPR/SIPR) capability in the COF as defined by the COF Army Standard Design. Telecommunications outlets (voice and data) shall be provided

	in accordance with I3A technical guide based on functional purpose of the various spaces within the facility as modified by user special operational requirements.
Privately Owned Vehicle (POV) Parking	POV parking shall be provided at the ratio of one space for every two Soldiers assigned to the companies included in the UNICOF
Energy	Facilities shall be designed in compliance with prevailing policy and mandatory requirements for federal facilities and Army engineering documentation in force at time of project definition and cost estimating.
Sustainable Design Development	Facilities shall be designed to meet current sustainable development and design policy requirements as established by the Department of the Army.

Guidance Section

General. The following guidance for application of the Company Operations Facility (COF) Army Standard is provided for design agent use in coordination with the Garrison Department of Public Works or equivalent (Installation Management Command Regional Office for Army units on non-Army installations). All design agents shall incorporate the key mandatory design features described herein in close coordination with the US Army Corps of Engineers (USACE) designated Center of Standardization (COS) for COFs. All COF projects must be reviewed by the COS.

1. This section of the Army Standard is a necessary component for determining the application and implementation of the mandatory requirements and thresholds established in this standard. The COS, in coordination with the COF Facility Design Team (FDT), is the final arbitrator for any conflicts or inconsistencies in the application of these standards as well as a mandatory reviewer prior to submission of any formal waiver requests by the installation. Citing project execution delays is insufficient justification for expedited review or other accelerated dispensation for deviating from meeting the COF Army Standards contained herein. Late submissions must be substantiated by unforeseen and documented life safety, health and welfare, or compelling mission imperatives that cannot be met without an approved waiver.

2. The COF Army Standard represents the third generation to simultaneously address past issues, current needs, and future requirements. As such, there are instances where a band of acceptability is allowed in the application and implementation of these standards. However, the range of acceptability is determined through a Warfighter Review process and deviation from this standard will equally consider implications on future requirements embedded herein and the potential impact of follow-on or retrofit construction activities on readiness as well as current situation.

3. The COF is a major reach operations facility with overarching responsibilities for deployed Brigade Combat Teams (BCT). Functional, operational, and spatial relationships critical to meeting mission planning, rehearsal, deployment, and operations are embedded in the operational layout of the facility. When there is a critical need for spatial or land use consideration for siting and implementing this Army Standard, guidance is provided to minimize or preclude functional and operational impacts on the COF and its Warfighter requirements.

4. The COF differs from Company Administration & Supply (CO A&S) standard used for aviation line companies or some TDA companies. Operational or readiness space factors in readiness (e.g., deployment preparation and staging) and operational (e.g., deployment sequencing and timelines) space implications into the standards and criteria used to provide company level facilities for predominantly TOE organization. Increased unit mission equipment storage (robotic and sensor technology, Warrior ensemble, etc.), specialized Soldier and unit mission equipment maintenance and repair activities are also considered down to who performs the functions and tasks. Under maintenance and repairer MOSC consolidation, two-level maintenance conversion, and adoption of condition-based maintenance doctrine, the necessary skill sets to accomplish non-vehicular maintenance and repair are consolidated and located in the Tactical Equipment Maintenance Facility (TEMF) shops. This reduces the need for specialized bench and test space in two facilities with their special utilities enablers but also requires close proximity of the COF Readiness Module to the servicing TEMF. These same factors do not require consideration for sizing and designing CO A&S.

Design Philosophy

1. This standard aligns with the concept of Multi-Domain Operations to provide intelligent, robust and secure Multi-Domain Power Projection Capabilities. This 21st century facility approach provides continuity of operation under attack or disaster conditions and the ability to be rapidly restored to full operation following adverse events, as well as the capacity for cost-effective incorporation of emerging technologies.

2. The COF Army Standard and the COF Standard Design ensures that primary facility and support structures will provide the desired adjacencies to meet Warfighter functional and operational requirements. Critical to the operations conducted in the COF is the identification of secure data connectivity to support execution of mission plans. Security considerations based on operational requirements must be developed based on the functional mission of the company being supported and varies extensively (infantry versus electronic warfare companies). COF configuration and layout is intended to minimized the facility footprint as well as recognize OCONUS requirements regarding foreign or local national support. Overflow and expansion space is primarily oriented towards the vertical orientation vice horizontal orientation.

3. There are instances where COFs are assigned additional mission responsibilities

or equipment allocations tailored to the functional mission area of the assigned company. As such, the COF Army Standard was developed to address the space allocations and functional adjacencies that meet the basic mission requirement for an Infantry Company which represents over 75% of the companies in the Army Force Structure. However, specialized companies may require additional space considerations and are reviewed on an individual, case-by-case basis ICW the COF COS and COF FDT. COF GSF thresholds are based on a banding or grouping of fully staffed companies by mission/branch category IAW Army requirement documents for the organization supported (e.g., Objective Tables of Organization and Equipment (OTOE)). Tables of Distribution and Allowances (TDA) organizations shall use a Company Administration and Supply configuration which normally does not employ the RM of the COF. When TDA applications are developed, the standardized criteria for space allocations and allowances for the COF shall be used before developing new or different criteria. When new or different criteria is considered, the COF COS will review and concur with the space allocation and/or allowance prior to implementation in programming or design documentation.

4. Consideration Adaptive, multipurpose design philosophy and consideration of technology adoption to maintain technological superiority, enhanced information security, and leap ahead capabilities to conduct operations have been incorporated (albeit not in the Warfighter unit's current authorization documents) to mitigate/minimize disruption construction imposes on the Soldier and unit readiness.

5. The COF Army Standard also simultaneously resolves past issues, current needs, and the capability to accommodate future requirements. These facilities are critical elements for reducing the support footprint for deployed forces in the Area of Operations, enabling reach operations, implementing the Army's force design to provide intelligent, robust, and secure Multi-Domain Power Projection Capabilities.

6. The COF Army Standard represents a 21st Century facility standard to simultaneously address past issues, current needs, and future requirements. As such, there are instances where a band of acceptability is allowed in the application and implementation of these standards. However, the range of acceptability is determined through a Warfighter Review process and deviation from this standard will also consider implications on future requirements embedded herein, and the potential impact of follow-on or retrofit construction activities on readiness as well as current situation.

7. Two fundamental concerns have resulted in the development and use of a COS validation process for this facility category. First, is the evolving mission for command and control facilities and the inability for traditional facility engineering systems and databases (e.g., RPLANS, ISR, ASIP) to keep pace with Army modernization and technology insertion decisions. Second, given the number of critical functional and operational variables associated with this facility type, especially at echelons above Corps, an automated and manual verification process is used to determine actual requirements for a given OTOE, TDA, and AUGTDA. The majority of the process is

based on computer algorithms and formulas based on this Army Standard and applied to specific UICs. Once a base calculation of space allowances has been completed, a manual, on-site verification is conducted by the COS or the COS's designated representatives. Clarification and adjudication is accomplished within the authorizations of this Army Standard with discrepancies or issues forwarded to the COF FDT Co-Chairs for further deliberation, adjudication, or recommendations for higher authority review.

8. Additional design consideration will include maximum use of natural light so that facilities remain usable during periods of lost utility support, economy of construction, durable facilities to withstand the rigors of multiple users, and pre-fabricated construction components and/or modular construction that satisfies facility durability and functional requirements.

Application Guidance.

1. Site Selection and Planning. The COF must be located on the installation considering functional relationships to other operations and facilities. Site selection for the COF includes adjacency to the supporting Tactical Equipment Maintenance (TEMF) Facilities. Whenever possible considering existing construction constraints, the separation between the COF RM and TEMF shall not exceed 250 linear feet in order to implement Army two-level maintenance (2LM) and DoD/Army condition-based maintenance (CBM) doctrine. Access security should be established that ensures positive pedestrian or vehicle control. When applicable, a security line may divide the site front (community side) and rear (secured side) of the administration portions of the Battalion and COF building(s) from the TEMF and the readiness module of the COF similar to that provided for Brigade Combat Teams (see Battalion-Brigade Army Standard). Force Protection measures must be met. However, additional building hardening above the minimum requirements outlined in Force Protection directives are not required as long as established setback distances are met. When local conditions or actual site limitations preclude "walking distance" accessibility, options or alternatives considered should be documented in the installation real property master plan.

2. COF Space Allocation (General Considerations). Space allowances are dictated by the approved mission for the command and any other validated requirements approved by HQDA, G-3. When mission conditions for a specific command cannot be adequately met by this Army Standard, the compelling functional and operational requirements shall be cited and justified prior to incorporation into any project programming or design. Deviations, including user requests, are considered waivers to Army standardization documents and will be adjudicated as cited above.

a. Space allocation is determined by doctrinally-based functions and tasks. Regardless of configuration, minimal use of "hard walls" will be used to provide maximum configurability with minimal to no construction.

b. For MTOE units, the COF is comprised of two modules: 1) Company Admin Module (CO Admin) and 2) Readiness Module (RM). Space for primary administrative functions within a company is contained in the CO Admin Module. All supply, logistics, specialized storage, and Soldier equipment issue storage (e.g., CTA-50) is contained in the RM. The RM also serves as admin expansion or specialized applications in order to accommodate all company functions and tasks across the entire Army Force Structure.

c. For TDA units, the criteria contained in this Army Standard shall apply for Company Admin and Supply configurations less the Readiness Module component. As such, application individual space allowances and allocations for individual functions (e.g., supply storage, CBRNE storage, Arms Room) shall be applied before development of unique or different space allowances/allocations. Any TDA application will be reviewed by the COF COS to preclude publication of conflicting or contradictory standards and criteria.

d. The adjacency requirements and space program for the COF are part of the Army Standard. Space allowances for additional mission staffing or augmentation is authorized but must be reviewed in advance of application to a project (waiver granted only when validated permanent population exceeds building design capacity by more than 5%) citing Army authorization documentation approved/validated by the Functional Proponent for this facility type. All other adjustments to space allowance authorizations will be accomplished in accordance with the Army Facility Standardization waiver process.

3. Company Administration Module (CO Admin Module). The CO Admin module shall consist of four (4) discreet segments as described below. Each provides NMT one (1) administrative module (CO Admin) per company.

a. Office and Administrative Spaces. Authorized sizing of the administrative space used of offices and other administrative functions are based on quad blocks or sets of four (4) as defined by the COF Army Standard Design. This applies to both the CO Admin Module and second floor mezzanine of the Readiness Module (RM). Any deviation from the application and allowances contained herein shall be reviewed and concurred with by the COF COS prior to implementation in DD1391 programming documentation or project designs.

b. General Purpose (GP) Storage Room. The GP Storage Room is provided based on staff element size ratio and organizational hierarchy. This room shall be lockable but will not be used as a substitute classified storage area. These rooms are allocated based on the COF COS validation process and algorithms available from the COS.

c. Printer/Copier Station. Printer/Copier Stations are provided based on staff element size ratio and organizational hierarchy. This is dedicated floor space within an Open Office Space or Work Area for copiers, printers, plotters, faxes or other

printing/reproduction equipment. Printing and reproduction is limited to non-secure data. These areas are allocated based on the COF COS validation process and algorithms available from the COS.

4. Readiness Module (RM). The COF Readiness Module (RM) is required for all TOE units. It is comprised of seven (7) discreet space segments with varying security levels. The average Soldier in the Army assigned to deployable (TOE) units is issued anywhere from 90 to 140 pounds of equipment. Generally, this is the equivalent volume of 2.5 to 3 duffle bags for which a Soldier is held accountable. As such, specialized lockers are provided for storage.

Interior storage is also provided for robotic Squad Logistics Support carriers (electrically powered unmanned ground vehicles) which will reduce actual equipment loads a Soldier carries on their back to a more manageable 90-100 pounds. Because the robotic carriers employ sensitive, advanced technologies, and to prevent hostile override of command signals through acquisition of carrier control units, these carriers must be stored in a secured storage facility. In order to reduce the need for yet another building, the layout area of a RM is used to park electrically powered robotic carriers. The RM flooring shall be capable of supporting ground pressure loading to support maximum forklift axle loads as prescribed in the COF Army Standard Design with a single door not less than 6 feet wide to accommodate Squad Logistics Support carriers access/egress from storage within the RM layout area.

a. Arms Room. The Arms Room requires Level 1 physical security features IAW AR 190-11. Intrusion Detection and alarm systems are employed as well as high security locks to meet Army policy for secure storage. Weapons and weapon target acquisition and engagement equipment are the only items authorized for storage within the Arms Room. The Arms Room is sized based on an average space allocation for specific mission type units that include consideration for arms racks and lockers for weapon and weapon accessory storage, circulation, and a small work area for the Unit Armorer. The Arms Room maintains a controlled environment (humidity control) to prevent moisture damage to weapons and weapon accessories.

b. Non-Sensitive Secure Storage Area. The Non-Sensitive Secure Storage Area provides Level 2 physical security IAW AR 190-51. Serial numbered, high value, technology, and pilferable items deemed to require additional security by local Provost Marshall Risk Analyses shall be store in the non-Sensitive Secure space of the COF. This space does not require "hard walls" but must provide penetration barriers commensurate with that required for Level 2 storage.

c. Unit Communications Equipment Storage Area.

d. Unit Chemical, Biological, Radiological, Nuclear, Energy (CBRNE) Storage Area.

e. Unit Storage Area. Property book and accountable consumable supplies.

f. Soldier Basic and Special Individual Issue Storage Area. (e.g., CTA-50 locker area)

g. Deployment-Layout Area. The Soldier Deployment-Layout Area serves multiple mission functions in order to minimize space and reduce overall facility footprint to both conserve land and reduce sustainment, lifecycle cost. There are four specific missions in order of priority for the Deployment-Layout Area: 1) Deployment preparation, staging, loading and unloading of Soldier and Unit equipment, 2) Soldier and Unit equipment light maintenance, 3) equipment serviceability and accountability inspection, and 4) storage for high technology/high cost equipment transient cases (e.g., small unmanned aircraft, ground robotic vehicles, and autonomous sensors) assigned to the CO, PLT, and SQD levels as well as the unmanned squad carrier vehicle. For the purposes of sizing, deployment flow considerations deployment sequencing, transient case storage, and basic layout and circulation space per Soldier derived from the Basic Individual Issue (BII) and Special Individual (equipment) Issue (SII) for say, armor CVC helmets, nomex coveralls, and nomex gloves for Armor and Armored Cavalry Soldiers, or Warrior (Soldier System) ensemble with wearable computers, helmet mounted displays, and internal communications/navigation equipment was used. This space is equivalent to approximately two poncho liners or 40 SF habitually used to layout equipment and some circulation for inspectors.

Area is then computed based on a percentage of the company OTOE personnel requirement calculated against the sitting company for which the facility was originally modeled (Infantry Company model of 4 PLT/CO). As such, the layout area is a resource multiplier compounded as a cost avoidance factor by also serving as expansion/reconfiguration space should the OTOE requirements change by threat analyses, stationing, unit building assignment, or technology adoption. Finally, space is defaulted to the minimum acceptable deployment (loading/unloading and staging for deployment) and layout (time to inspect prior to deployment) risk factors. Hence, no COF will have less than 50% of assigned personnel interior Deployment-Layout Area,

Additional layout area is provided under a covered hardstand area adjacent to the COF.

5. Telecommunications. Telecommunications infrastructure will meet I3A and ANSI/TIA/EIA requirements. Data outlets will be provided per the I3A technical guide based on functional purpose of the various spaces within the facility as modified by operational requirements, with wireless access points provided in the maintenance and repair Shops. Provide a dedicated secure communication room constructed in accordance with the provisions of the Technical Guide for the Integration of Secret Internet Protocol Router Network (SIPRNET) to accommodate future Secure Internet Protocol Routing Network (SIPRNET) access. The telecommunications infrastructure, cabling and outlets will be allocated IAW the following references:

- Project specific USAISEC Information Technology Facility Design Criteria
- USAISEC Technical Guide for Installation Information Infrastructure Architecture (I3A)
- USAISEC Technical Guide for the Integration of Secret Internet Protocol Router Network (SIPRNET)
- National Security Agency (NSA), Department of Defense (DoD), Defense Information Systems Agency (DISA), and Department of the Army (DA) policies, practices, and memorandum for information assurance, security, and protection
- UFC 3-580-01 Telecommunications Building Cabling Systems Planning/Design
- Facilities must connect to the Installation telecommunications (voice and data) system through the outside plant (OSP) underground infrastructure per I3A guidance. Telecommunications rooms and telecommunications entrance facilities must be provided for unclassified network and voice equipment and cabling infrastructure throughout the facilities.

6. Connectivity & Distribution. Outside plant connectivity shall be provided in accordance with the Army I3A guidance. The COF facilities shall be connected to a distribution node with single mode fiber optic cabling and shall be considered as an Area Distribution Node (AON) for engineering purposes. The fiber optic cabling shall be sized to support the common user systems and HGR critical systems. For planning purposes, 12 strands of fiber shall provide connectivity to the installation fiber backbone. Adjustments will be made during actual project design development.

Reference Criteria. The designs should use latest editions of the following design criteria:

- IBC - International building code
- NFPA 13 Standard for the Installation of Sprinkler Systems
- NFPA 101 Life Safety Code
- Uniform Federal Accessibility Standards (UFAS) Federal Standard 795
- Energy Policy Act 2005 (EPACT05)
- Energy Act 2020 (EA 2020)
- Army Sustainable Design and Development Policy Update
- AR 190-16, Physical Security
- AR 190-51, Security of Unclassified Army Property (Sensitive and Nonsensitive)
- AR 210-20, Real Property Master Planning for Army Installations
- AR 380-5, Department of Army Information Security Program
- AR 405-70, Utilization of Real Property
- AR 420-1, Army Facilities Management
- DA PAM 415-28, Facility Guide to Army Real Property Category Codes
- UFC 1-200-01 Design: General Building Requirements
- UFC 3-600-01, Design: Fire Protection Engineering for Facilities
- UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings
- Standard Definitive Design for COF

- ER 1110-3-113, Engineering and Design, Department of the Army Facilities Standardization Program
- ETL 1110-3-491, Sustainable Design for Military Facilities
- D/CID 6/4, Personnel Security
- USAISE, Technical Criteria for the Installation Information Infrastructure Architecture (IA3)