Facilities Services Directorate
Washington Headquarters Services
Department of Defense

WASHINGTON HEADQUARTERS SERVICES BUILDING CODE

Prepared by:

Facility Services Directorate
Standards & Compliance Division

Revision 3.0 – January 1, 2015
Replaces Revision 2.0 – January 1, 2014

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WASHINGTON HEADQUARTERS SERVICES BUILDING CODE (WHSBC)

REVISION SUMMARY SHEET

Subject: WHSBC, Washington Headquarters Services Building Code, Revision3.0, dated January 1, 2015.

Superseding: WHSBC, Revision 2.0, dated January 1, 2014.

Description of Change: Revision 3.0 incorporates proposed revisions to the WHSBC based on proposals and comments received during the January 2014-July 2014 code review cycle.

Reasons for Change: This change is in response to user input requesting clarification, tightening and further definition of code requirements.

Impact: Changes included herein include the following:

1. Editorial changes and corrections
2. New definitions, editorial changes and new code adoptions
3. Substantial expansion of electrical code requirements
4. Substantial expansion of mechanical code requirements
5. Substantial expansion of plumbing code requirements

History: The WHSBC supplements UFC 1-200-01, *General Building Requirements*, Dated 1 July 2013.

The WHSBC was developed to reflect the mission, infrastructure, and capabilities of WHS owned and operated properties in the National Capitol Region. As such, the WHSBC:

1. Incorporates all applicable sections of UFC 1-200-01, including references to other UFC codes, the International Codes, and National Fire Protection Association (NFPA) Codes,
2. Removes Military Department, Defense Agency, and DoD Field Activity specific requirements, incorporating singular WHS requirements,
3. Amends requirements to reflect WHS mission capabilities, and
4. Supplements UFC 1-200-01 with additional sections to provide further guidance regarding procedures and requirements within WHS.

The existing UFC guidance was inadequate for the following reasons:

- UFC 1-200-01, predecessor to this WHSBC, is intended to be applicable to the Military Departments, the Defense Agencies, and the DoD Field Activities for use in permanent, semi-permanent and temporary construction supporting their mission both nationally and abroad.
- Washington Headquarters Services (WHS) is a DoD Field Activity that serves multiple Military Departments, Defense Agencies, and DoD Field Activities within its facilities. WHS uniformly applies military criteria in the construction of its facilities.
- The WHSBC was developed to better reflect the mission, infrastructure and capabilities of WHS.

The following direct benefits will result from adoption of the WHSBC:

- Creation of a single source reference for modifications to a building code that provides guidance for the design and installation of WHS facilities.
  - Reduces interpretation and ambiguity that could lead to design and construction conflicts.
  - Continues DoD/WHS reliance upon NFPA Fire Code and Life Safety Code, and where they are to be specifically used and applied.
- WHS stakeholders will have a greater ability to modify requirements and administrative procedures associated with implementation of the building code.

Revision 1.5, dated June 1, 2013 incorporated proposed revisions to the WHSBC based on proposals and comments

received during the July 2012 – December 2012 code review cycle.

Revision 1.6, dated June 20, 2013 updated the WHSBC to reflect modifications required by the release of UFC 3-600-01, 26 September 2006 edition Change 3 dated 1 March 2013. This revision clarified many of the requirements pertaining to previous UFC 3-600-01 editions. Revisions included sprinkler design criteria, SCIF criteria, and telecommunication facility criteria among others.

Revision 2.0, dated January 1, 2014 incorporated revisions to the WHSBC based on proposals and comments received during the January 2014- July 2014 code review cycle.

Marginal Markings

Solid vertical lines in the margins within the body of the code indicate a technical change from the previous version of the code. Deletion indicators in the form of a bullet (●) are provided in the margins where an entire section, paragraph, exception or table has been deleted.

100.0 ADMINISTRATION
101.0 GENERAL

101.1 Title.

These regulations shall be known as the Washington Headquarters Services Building Code (WHSBC), hereinafter referred to as "this code."

101.2 Scope.

The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures on all Washington Headquarters Services (WHS) owned properties (excluding Site R) and the Fort Belvoir Mark Center Complex (FBMCC). This code is applicable to all methods of project delivery, including both design-bid-build and design-build.

Exception: Unless listed below, Sections 102.0 through 117.0 of this document do not apply to the FBMCC. In the code where Office of the Pentagon Fire Marshal (OPFM), Pentagon Building Management Office (PBMO) or Pentagon Force Protection Agency (PFPA) is called out as the Authority Having Jurisdiction (AHJ) for the specific regulation and said AHJ is not the active authority for such regulations at the site, then the equivalent AHJ for that site shall make the determination. The following code sections apply to the FBMCC: Sections 105.1 parts 1, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15 and 16.

101.2.1 Appendices and Attachments.

101.2.1.1 Attachments - Attachments are considered part of the code and are fully enforceable as such.

101.2.1.2 Appendices - Provisions in the appendices shall not apply unless specifically adopted herein.

101.3 Intent.

The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, physical security and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate lighting and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations. No construction, alteration, or repair shall reduce the level of fire protection or life safety provided by existing conditions.

101.4 Approach.

Department of Defense Directive 4270.5 prescribes that the Unified Facilities Criteria (UFC) and the Unified Facilities Guide Specifications (UFGS) (see Appendix D) be used to the greatest extent possible by all Department of Defense (DoD) Components for planning, design, and construction (i.e. restoration and modernization) of facilities, regardless of funding source. The WHSBC incorporates UFC 1-200-01 for all buildings/structures/appurtenances falling within the scope of this document. To remain in compliance with DODD 4270.5, the WHSBC:

1. Incorporates all applicable sections of UFC 1-200-01, including references to other UFC codes, the International Codes, and National Fire Protection Association (NFPA) Codes,
2. Removes Military Department, Defense Agency, and DoD Field Activity specific requirements, incorporating singular WHS requirements,
3. Amends requirements to reflect WHS mission capabilities, and
4. Supplements UFC 1-200-01 with additional sections to provide further guidance regarding procedures and requirements within WHS.

Washington Headquarters Services is a Department of Defense Field Activity, created on October 1, 1977 to supply services common to more than one DoD component or military department. WHS is an essential capabilities provider that enables the Secretary of Defense, Senior DoD Leadership, and their staffs to fulfill the mission of the Department. WHS provides consolidated administrative and operational support to several Defense Agencies, DoD Field Activities, the headquarters and various elements of the military departments, the President, and to some degree, Congress. As the Pentagon is the headquarters for the Department of Defense, additional clarification is provided for provisions in the UFC that are geared toward the individual armed services. "Code plus" enhancements are documented in each section of this code to identify areas where a greater degree of protection is warranted based on the mission and inherent risks present within WHS facilities. National Fire Protection Association codes and standards form the basis of all fire and life safety requirements.

101.5 Building Code.

Except as indicated below, use the 2012 International Building Code (IBC) as modified by Sections 200 and Sections 300 of this code, as the building code for WHS.

101.6 Substitutions.

101.6.1 All references in the International Building Code to the International Fire Code shall be considered to be references to NFPA 1.

101.6.2 All references in the International Building Code to the International Fuel Gas Code (IFGC) shall also be considered references to NFPA 54 and NFPA 58. Where International Fuel Gas Code requirements are more stringent than the NFPA 54 and NFPA 58, those IFGC requirements shall apply unless otherwise noted herein.

101.6.3 Unless specifically addressed within this code, where conflicts arise between codes referenced herein, the more stringent requirement applies. For conflicts where neither option is more stringent, consult the Building Code Official (BCO) for direction.

101.7 Acronyms and Definitions.

101.7.1 AHA – Activity Hazard Analysis

101.7.2 AHJ – Authority Having Jurisdiction (see definition below)

101.7.3 Alteration See definition for modification.

101.7.4 Approving Authority – The individual responsible for reviewing permit applications and issuing final authority to begin work under such permit.

101.7.5 Authority Having Jurisdiction (AHJ) – The individual responsible for approving equipment, materials, an installation, or a procedure. The WHS AHJ is the Director, Facilities Services Directorate.

101.7.6 BCO – Building Code Official (see definition below)

101.7.7 *Building Code Official (BCO) – A division, office, or individual designated by the AHJ to serve as a representative for the AHJ. The BCO's powers and responsibilities are defined and limited herein.

101.7.8 CFR – Code of Federal Registrar

101.7.9 *Change of Use - A change in the purpose or level of activity within a structure or space that involves a change in application of the requirements of the WHSBC.

101.7.10 CM – Construction Manager (see definition below)

101.7.11 CMD – Construction Management Division, a division within FSD

101.7.12 Code Departure – A deviation from code granted for a "zero risk" condition.

101.7.13 Code Waiver – An exception to code granted for extenuating circumstances of impact to historic preservation, excessively high cost, and/or major constructability difficulties.

101.7.14 Construction Manager (CM) – An individual assigned, as required, to assist the Project Manager in managing the physical construction aspects of a project. The CM has authority as delegated by the PM.

101.7.15 Construction, Permanent – Buildings and facilities designed and constructed to serve a life expectancy of more than 25 years.

101.7.16 *Construction, New - The building of something, primarily a structure, but also the infrastructure built in support of that structure that was not previously in existence.

101.7.17 Construction, Semi-Permanent – Buildings and facilities designed and constructed to serve a life expectancy of more than five years but less than 25. This construction level is typically only used to support military operations. Expediency of construction and material availability may be a factor. Facility is intended for a more enduring presence with operational characteristics and functional performance similar to permanent construction. Maintainability of finishes and systems shall be commensurate with the facility life expectancy and available maintenance capabilities. A moderate level of energy and water efficiency shall be considered.

101.7.18 Construction, Temporary – Buildings and facilities designed and constructed to serve a life expectancy of five years or less using low-cost construction. Temporary construction typically cannot be economically converted to a higher construction level. Temporary facilities have limited flexibility for conversion and re-use.

101.7.19 COR – Contracting Officer's Representative

101.7.20 DoD – Department of Defense

101.7.21 DTIC – Defense Technical Information Center

101.7.22 Electrical Rooms - Rooms that house dry type transformers, switchgear, lighting and power panels and other like electrical equipment.

101.7.23 ECM – Engineering and Construction Management, an office within FSD

101.7.24 EPA – Environmental Protection Agency

101.7.25 ESEB – Environmental Sustainability and Energy Branch, a branch within SCD

101.7.26 Facilities Configuration Management Branch – The organization responsible for receiving, tracking and archiving all drawings, submittals, specifications and other related design documents.

101.7.27 FBMCC – Fort Belvoir Mark Center Complex

101.7.28 FCMB – Facilities Configuration Management Branch, a branch within FFD

101.7.29 FFD – Federal Facilities Division, a division within FSD

101.7.30 FSD – Facilities Services Directorate, a directorate within WHS

101.7.31 GDA – Government Designated Authority

101.7.32 HRP – Heating and Refrigeration Plant

101.7.33 IBC – International Building Code

101.7.34 IFC – International Fire Code

101.7.35 IFGC – International Fuel Gas Code

101.7.36 Kitchen – A room with four walls that is equipped for preparing and cooking food according to health regulations.

101.7.37 Kitchenette – A space with walls constructed on three sides generally with cabinets fastened to the wall, all appliances fixed, may have a sink, but does not have a stove.

101.7.38 KO – Contracting Officer

101.7.39 LPG – Liquefied Petroleum Gas

101.7.40 Mechanical Room, Large – Mechanical rooms 2000 sq. ft. or larger in area.

101.7.41 MEF – Metro Entrance Facility

101.7.42 *Modification - The reconfiguration of any space; the addition, relocation, or elimination of load-bearing elements; the reconfiguration or extension of any system; or the installation of any additional equipment.

101.7.43 OPFM – Office of the Pentagon Fire Marshal

101.7.44 OSHB – Occupational Safety and Health Branch, a branch within SCD

101.7.45 Pantry – A dedicated cubicle that is used for food storage and coffee making and has no other office use (i.e. no computer/printer/paper or office supplies).

101.7.46 PBMO – Pentagon Building Management Office, a branch within FFD

101.7.47 PBMO O&M – Pentagon Building Management Office - Operations and Maintenance, a subset of PBMO

101.7.48 PCD – Project Controls Division, a division within FSD

101.7.49 Pentagon – Portions of the Pentagon Reservation contiguous to the original 1943, 5 sided structure. References to the Pentagon include floors above and below grade including the basement and mezzanine levels. References to Pentagon do not include the MEF, RDF or PLCC.

101.7.50 PERC – Pentagon Emergency Response Center

101.7.51 Permit Holder – Individual or entity holding an approved permit to conduct work on equipment, space or property under the jurisdiction of this code.

101.7.52 PFPA – Pentagon Force Protection Agency, a field agency of the Department of Defense

101.7.53 PLCC – Pentagon Library and Conference Center

101.7.54 PM – Project Manager (see definition below)

101.7.55 PM SOP – Project Manager Standard Operating Procedures – a document published by PCD

101.7.56 Project – One time efforts to design and construct real property improvements (new construction, renovations, modifications, or alterations to existing real property), systems of physical or virtual improvements, testing or validation of equipment, or any other program that will be coordinated with multiple stakeholders. This umbrella document is applicable to all efforts to improve the Pentagon Reservation, not solely for construction projects. See also Project, Small.

101.7.57 *Project Manager (PM) –The lead agent responsible for design and execution.

101.7.58 Project, Small – Any capital improvement cost estimate between $20,000 and $250,000 is considered a small project.

101.7.59 QRAS – Quick Response Automatic Sprinklers

101.7.60 RDF – Remote Delivery Facility

101.7.61 *Real Property – Land and improvements to land, buildings, structures, and linear structures (utilities/pavements), and includes equipment affixed and built into the facility as in integral part of the facility.

101.7.62 *Repair - The patching, restoration, or painting of materials, elements, equipment, or fixtures for the purpose of maintaining such materials, elements, or fixtures in good or sound condition.

101.7.63 *Renovation - The replacement in kind, strengthening, or upgrading of building elements, materials, equipment, or fixtures, that does not result in a reconfiguration of the buildings spaces within.

101.7.64 RPAM – Real Property Asset Management

101.7.65 SCD – Standards and Compliance Division, a division within FSD

101.7.66 SCIF – Sensitive Compartmented Information Facility

101.7.67 SBCO – Sub-Building Code Official (see definition below)

101.7.68 SSD – Security Services Directorate, a directorate within PFPA

101.7.69 Sub-Building Code Official (SBCO) – A designated subset of the Building Code Official in a designated area.

101.7.70 UFGS – Unified Facilities Guide Specifications

101.7.71 VADEQ – Virginia Department of Environmental Quality

101.7.72 WHS – Washington Headquarters Services, a field activity of the Department of Defense

101.7.73 WHSBC – Washington Headquarters Services Building Code

101.7.74 WHSFR – Washington Headquarters Services Fire Regulations

101.7.75 WHS OGC – DoD/WHS Office of the General Counsel

102.0 APPLICABILITY

102.1 General.

Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive provision shall govern.

102.2 Other Laws.

The provisions of this code shall not be deemed to nullify any provisions of federal, state, regional, or local laws; Executive Orders; or DoD Issuances.

102.3 Application of References.

References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapters, sections or provisions of this code.

102.4 Referenced Codes and Standards.

The codes and standards referenced in this WHSBC shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.5 Effective Date

The requirements of this code edition shall be effective 30 days after the adoption by the Director, Facilities Services Directorate, Washington Headquarters Services. This date shall be known as the 'Effective Date'. This code edition shall apply to all contracts issued on or after the Effective Date.

102.6 Partial Invalidity.

In the event that any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions.

102.7 Existing Structures.

The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as specifically covered in this code, the Washington Headquarters Services Fire Regulations (WHSFR), or as is deemed necessary by the Authority Having Jurisdiction (AHJ) for the general safety and welfare of the occupants and public as well as physical security.

103.0 STANDARDS AND COMPLIANCE DIVISION

103.1 Oversight and Enforcement

The responsibility for oversight and enforcement of the WHSBC shall reside in the Standards and Compliance Division (SCD) of the Facility Services Directorate (FSD). The official responsible for enforcement and implementation of the WHSBC shall be known as the Building Code Official (BCO).

103.2 *Appointment.The BCO shall be appointed by the AHJ.

103.3 Sub-Building Code Official.

In accordance with the prescribed procedures and with the concurrence of the AHJ, the BCO shall have the authority to appoint sub-building code officials (SBCOs), the related technical officers, inspectors, plan examiners, safety officers and other employees. Such employees shall have powers as delegated by the BCO.

104.0 DUTIES AND POWERS OF THE AUTHORITY HAVING JURISDICTION AND THE CONSTRUCTION OFFICIAL

104.1 General.

The BCO is hereby authorized and directed to enforce the provisions of this code. The BCO shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies, and procedures shall be in compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.

104.2 Applications and Permits.

The BCO shall receive applications from the appropriate Document Control organization; review construction documents and issue permits for the erection, alteration, demolition, and moving of buildings and structures; inspect the premises for which such permits have been issued; and enforce compliance with the provisions of this code.

104.3 Notices and Orders.

The BCO shall issue all necessary notices or orders to ensure compliance with this code through the COR/PM/KO to the contractor.

104.4 Inspections.

The BCO shall make all of the required code compliance inspections, or the BCO shall have the authority to accept reports of inspection by approved organizations or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved organization or by the responsible individual. The BCO is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the AHJ.

104.5 Identification.

The BCO and any designated representatives shall carry proper credentials when inspecting structures or premises in the performance of duties under this code.

104.6 Right of Entry.

The AHJ, or their designated representative, has the power to enter and examine WHS facilities to conduct inspections. Before entering, the AHJ shall obtain the consent of the DoD Component controlling or occupying the space or obtain authorization from the Director, WHS, except in those instances where an imminent danger to life or property exists. If such structure or premises is occupied, credentials must be presented to the occupant and entry requested. If such structure or premises is unoccupied, the AHJ shall first make a reasonable effort to locate the project manager or other person having charge or control of the structure or premises and request entry. If entry is refused, the AHJ shall have recourse to the remedies provided to secure entry.

104.7 Department Records.

The BCO shall keep official records of applications received, permits and certificates issued, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for at a minimum the period required for retention of public records.

104.8 Reserved.

104.9 Approved Materials and Equipment.

104.9.1 Materials, equipment, and devices approved by the BCO shall be constructed and installed in accordance with such approval. Materials, equipment, and parts shall be of like quality, functionally compatible, and aesthetically equivalent to existing systems within the building.

104.9.2 Used Materials and Equipment.

The use of used materials which meet the requirements of this code for new materials is permitted. Used equipment and devices shall not be reused unless approved by the BCO.

104.10 Code Waivers and Departures.

Wherever there are practical difficulties involved in carrying out the provisions of this code, the AHJ and BCO shall have the authority to grant modifications for individual cases, upon application by the PM, provided the BCO shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of granting code waivers or departures shall be recorded and entered in the files of SCD.

104.10.1 Application Procedure.

104.10.1.1 Code Waivers.

104.10.1.1.1 A Waiver Request form is provided in Attachment 1 of this code. Completed form shall be submitted to SCD with all requisite attachments.

104.10.1.2 Code Departures.

104.10.1.2.1 A Departure Request form is provided in Attachment 2 of this code. Completed form shall be submitted to SCD with all requisite attachments.

104.10.2 Granting Authority.

104.10.2.1 Code Waivers.

Only the AHJ has authority to grant code waivers; the BCO does not have the authority.

104.10.2.2 Code Departures.

Code departures may be granted by either the BCO or the AHJ.

104.11 Alternative Materials, Design, and Methods of Construction and Equipment.

The provisions of this code are not intended to prevent the installation of any material nor to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design, or method of construction shall be approved where the BCO finds that the proposed design is satisfactory and complies with the intent of the provisions of this

code, and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability, and safety.

104.11.1 Research Reports.

Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.

104.11.2 Tests.

Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the BCO shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the BCO shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the appropriate Document Control for the period required for retention of public records.

104.12 Revisions to the WHSBC.

Revisions to the WHSBC shall occur as described in Appendix C of this document.

105.0 PERMITS

105.1 Required.

Prior to execution, permits and licenses will be required to ensure the work effort meets building codes and regulations and complies with any Federal, State, and municipal laws, codes, and regulations. Permits will also be required to facilitate transportation, disposal, and handling of hazardous waste, asbestos removal/abatement, PCBs, refrigerants, lead based paint, etc. These items must be properly manifested and coordinated through FSD. Any organization that intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a WHS owned building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical, security, fire, life safety or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the BCO and obtain the required permit(s).
Required permits/approvals:

105.1.1 **Air Quality Permit Review**

105.1.1.1 Section 105.1.1 is included to assure that the requirements of the Clean Air Act are met.

105.1.1.2 When Required – Whenever the use of temporary generators and/or boilers for any activity, ceremony, special event or display are needed.

Contact must be made with the Environmental Sustainability and Energy Branch (ESEB) at 703-693-3683 for a review and potential application.

105.1.1.3 Approving Authority – SCD/ESEB and Virginia Department of Environmental Quality (VADEQ)

105.1.1.4 Document Control – SCD/ESEB - If required, the Environmental Office will prepare and submit an application to the VADEQ on behalf of the submitter to obtain a temporary permit.

105.1.2 **Antennas and Similar Devices Installation Application**

105.1.2.1 Section 105.1.2 adopts by reference the latest edition of DD1494 – Application for Equipment Frequency Allocation as published by PBMO. Additional information is available upon request at whs.specialevents@mail.mil.

105.1.2.2 When Required – Installation of any temporary or permanent roof penetrating equipment or radio frequency generating device.

105.1.2.3 Approving Authority – PBMO

105.1.2.4 Document Control - PBMO

105.1.3 **Asbestos Control Permit**

105.1.3.1 Section 105.1.3 adopts by reference the latest edition of the Asbestos Control Permit, as published by SCD/Occupational Safety and Health Branch (OSHB), on its website at https://safety.whs.mil/, under "Forms" under the delegated authority of the Director, FSD.

105.1.3.2 When Required – Any construction, alteration, repair, or modification work requiring access to and/or disturbance of existing asbestos materials.

105.1.3.3 Approving Authority – SCD/OSHB

105.1.3.4 Document Control – SCD/OSHB

105.1.4 **Building Pass Application**

105.1.4.1 Section 105.1.4 adopts by reference the latest edition of the Building Pass applications, as published by PFPA. Additional information is available on their website at http://www.pfpa.mil/.

105.1.4.2 When Required – All individuals required to access the property for inspection, survey, work or other purposes.

105.1.4.3 Approving Authority – PFPA

105.1.4.4 Document Control – PFPA

105.1.5 **Building Code Permit**

105.1.5.1 Section 105.1.5 adopts a building code permit. See Attachment 3 for details, instructions and form.

105.1.5.2 When Required: Any construction, alteration, modification, or change in occupancy being completed on property under the jurisdiction of this code that is not listed in Section 105.2.

105.1.5.3 Approving Authority – SCD/BCO

105.1.5.4 Document Control – SCD/BCO

105.1.6 **Cable Pulling Permit**

105.1.6.1 Section 105.1.6 adopts by reference the latest edition of the Cable Pulling Permit, as published by PBMO. Additional information is available upon request by contacting whs.specialevents@mail.mil.

105.1.6.2 When Required – Cable pulling installations in above-ceiling, PBMO or publicly held spaces.

105.1.6.3 Approving Authority – PBMO

105.1.6.4 Document Control – PBMO

105.1.7 **Confined Space Permit**

105.1.7.1 Section 105.1.7 adopts by reference the latest edition of the Confined Space Entry Permit, as published by the SCD/OSHB, under "Confined Space" on its website at https://safety.whs.mil/ under the delegated authority of the Director, FSD.

105.1.7.2 When Required – For any work that requires an individual to enter a confined space, supervise an entry, or approve an entry.

105.1.7.3 Approving Authority – SCD/OSHB

105.1.7.4 Document Control – SCD/OSHB

105.1.8 **Demolition Permit**

105.1.8.1 Section 105.1.8 adopts by reference the latest edition of the Fire Prevention Permit as published by OPFM under "Permits Section" on its website at https://fire.whs.mil, under the delegated authority of the Director, FSD.

105.1.8.2 When Required – Whenever demolition of structures is required to complete project work.

105.1.8.3 Approving Authority – SCD/OPFM and PBMO

105.1.8.4 Document Control – SCD/OPFM and PBMO

105.1.9 **Excavation Permit**

105.1.9.1 Section 105.1.9 adopts by reference the latest edition of the Excavation Permit, as published by PBMO. Additional information is available upon request by contacting whs.specialevents@mail.mil.

105.1.9.2 When Required – For any work on the Pentagon Reservation that may disrupt underground communication or utility lines, or above ground rights of ways.

105.1.9.3 Approving Authority – PBMO

105.1.9.4 Document Control - PBMO

105.1.10 **Exhibits, Artwork, and Signs on the Pentagon Reservation**

105.1.10.1 Section 105.1.10 adopts by reference Administrative Instruction No. 103: Exhibits, Artwork, and Signs on the Pentagon Reservation, as published by the DA&M, on its website at http://www.dtic.mil/whs/directives/corres/pdf/a103p.pdf. (See also Use of Space on Pentagon Reservation Permit)

105.1.10.2 When Required – Whenever exhibits, artwork, or signs are to be installed or modified.

105.1.10.3 Approving Authority – PBMO

105.1.10.4 Document Control - PBMO

105.1.11 **Flammable, Combustible, and Hazardous Materials Permit**

105.1.11.1 Section 105.1.11 adopts by reference the latest edition of the Fire Prevention Permit as published by OPFM under "Permits Section" on its website at https://fire.whs.mil, under the delegated authority of the Director, FSD. This section also adopts by reference the latest edition of the WHS Fire Regulations, Chapter 5, as published by OPFM, under "Fire Regulations" on its website at https://fire.whs.mil/ under the delegated authority of the Director, FSD and any permit required therein.

105.1.11.2 When Required –Any work requiring the use, storage, or manipulation of flammable, combustible, or hazardous materials.

105.1.11.3 Approving Authority – SCD/OPFM

105.1.11.4 Document Control – SCD/OPFM

105.1.12 **Hazardous Material Management Form**

105.1.12.1 Section 105.1.12 adopts by reference the latest edition of the Hazardous Materials Management Form, as published by the SCD/OSHB, under "Forms" on its website at https://safety.whs.mil/ under the delegated authority of the Director, FSD.

105.1.12.2 When Required - When a WHS individual or group wants to test, try, use, or bring on property a product not currently on the WHS chemical inventory.

105.1.12.3 Approving Authority – SCD/OSHB and OPFM

105.1.12.4 Document Control – SCD/OSHB

105.1.13 **Hot Work Permit** (Welding, Cutting, or Brazing)

105.1.13.1 Section 105.1.13 adopts by reference the latest edition of the Hot Work Permits. Hot Work permits are available as follows:

105.1.13.1.1 Pentagon - Published by PBMO (Contact PBMO O&M at 703-693-8084 for further information), under the delegated authority of the Director, FSD.

105.1.13.1.2 Heating and Refrigeration Plant (HRP) and FBMCC – Published by OPFM under "Permits Section" on its website at https://fire.whs.mil, under the delegated authority of the Director, FSD.

105.1.13.2 When Required - Any operation involving open flames or producing heat and/or sparks, hot slag, or dross. Hot work includes, but is not limited to, brazing, cutting, grinding, soldering, arc welding, work on a pipe that would conduct heat through a wall or in contact with a wall, or torch-applied roofing.

105.1.13.3 Approving Authorities:

105.1.13.3.1 Pentagon – PBMO

105.1.13.3.2 HRP and FBMCC – SCD/OPFM

105.1.13.4 Document Control:

105.1.13.4.1 Pentagon – PBMO

105.1.13.4.2 HRP and FBMCC – SCD/OPFM

105.1.14 **Lead Work**

105.1.14.1 Section 105.1.14 adopts by reference the latest edition of the Lead policy chapter, as discussed by the SCD/OSHB, under "Policy Chapters – Chapter 21 Lead" on its website at https://safety.whs.mil/ under the delegated authority of the Director, FSD and any permit required therein.

105.1.14.2 When Required – During the use, handling, and removal of materials containing lead.

105.1.14.3 Approving Authority – SCD/OSHB

105.1.14.4 Document Control – SCD/OSHB

105.1.15 **LPG Permit** (See also Air Quality Permit)

105.1.15.1 Section 105.1.15 adopts by reference the latest edition of the Fire Prevention Permit as published by OPFM under "Permits Section" on its website at https://fire.whs.mil, under the delegated authority of the Director, FSD. OPFM requires the storage and handling of liquefied petroleum gasses (LPG) shall be in accordance with the latest editions of NFPA 1, the Fire Prevention Code, and NFPA 58, the Liquefied Petroleum Gas Code.

105.1.15.2 When Required – Whenever permit is called out in documents referenced in 105.1.15.1.

105.1.15.3 Approving Authority – SCD/OPFM

105.1.15.4 Document Control – SCD/OPFM

105.1.16 **Open Flame Permit**

105.1.16.1 Section 105.1.16 adopts by reference the latest edition of the Open Flame Permit, as published by OPFM, under "Permits Section" on its website at https://fire.whs.mil/, under the delegated authority of the Director, FSD.

105.1.16.2 When Required – Reserved

105.1.16.3 Approving Authority – SCD/OPFM

105.1.16.4 Document Control – SCD/OPFM

105.1.17 **Photo Permit**

105.1.17.1 Section 105.1.17 is included to provide guidance regarding obtaining a photo permit. Contact PFPA/SSD Access Control Staff at 703-614-1529 for further information.

105.1.17.2 When Required – Whenever photography is required to complete a project/scope of work on WHS property.

105.1.17.3 Approving Authority – PFPA/Director SSD

105.1.17.4 Document Control - PFPA

105.1.18 **Roof Access Permit**

105.1.18.1 Section 105.1.18 adopts by reference the latest edition of the Roof Access Permit, as published by PBMO. Additional information is available upon request by contacting whs.specialevents@mail.mil.

105.1.18.2 When Required – All work requiring access to the roof.

105.1.18.3 Approving Authority – PBMO

105.1.18.4 Document Control – PBMO

105.1.19 **Roof Hot Work Permit**

105.1.19.1 Section 105.1.19 adopts by reference the latest edition of the Roof Hot Work Permit, as published by PBMO. Additional information is available upon request by contacting whs.specialevents@mail.mil.

105.1.19.2 When Required – Any roof operation involving open flames or producing heat and/or sparks, hot slag or dross. Hot Work includes, but is not limited to, brazing, cutting, grinding, soldering, arc welding, work on a pipe that would conduct heat through a wall or in contact with a wall, or torch-applied roofing.

105.1.19.3 Approving Authority – PBMO

105.1.19.4 Document Control - PBMO

105.1.20 ***Space Access**

105.1.20.1 Section 105.1.20 adopts by reference the latest edition of DTM 09-012, "Interim Policy Guidance for DoD Physical Access Control", as published by the Defense Technical Information Center (DTIC), on its website at http://www.dtic.mil/whs/directives/corres/pdf/DTM-09-012.pdf. Note: Additional access requirements may apply depending on work location.

105.1.20.2 When Required – Whenever access to DoD installations or stand-alone facilities is required.

105.1.20.3 Approving Authority – Component Security Officer/Manager

105.1.20.4 Document Control – Component Security Officer/Manager

105.1.21 **Stationary Lead-Acid Battery Systems Permit** (Reserved)

105.1.22 **Use of Explosives Permit**

105.1.22.1 Section 105.1.22 adopts by reference the latest edition of the Use of Explosives Permit, as published by PBMO. Additional information is available upon request by contacting whs.specialevents@mail.mil.

105.1.22.2 When Required – All work requiring use or storage of explosives.

105.1.22.3 Approving Authority – PBMO

105.1.22.4 Document Control – PBMO

105.1.23 **Use of Space on the Pentagon Reservation Permit** (to include land)

105.1.23.1 Section 105.1.23 adopts by reference the latest edition of DD2798, as published by the Defense Technical Information Center (DTIC), on its website at http://www.dtic.mil/whs/directives/infomgt/forms/eforms/dd2798.pdf, authority for which is granted by

Title 32 of the Code of Federal Registrar (CFR) Part 234.3D.

105.1.23.2 When Required – Whenever events, installations, projects, etc. require use of PBMO controlled or public spaces on WHS property. Use of equipment such as barbeque grills and open flames must be included in the Space Use Permit. Use of space permits are required for the following:

105.1.23.2.1 Cable pulling (See also Cable Pulling Permit in Section 105.1.6, above)

105.1.23.2.2 Construction

105.1.23.2.3 Demolition of structures

105.1.23.2.4 Excavation (See also Excavation Permit in Section 105.1.9, above)

105.1.23.2.5 Flammable/combustible liquids storage (See also Flammable and Combustible Liquids Storage Permit Requirements in Section 105.1.11, above)

105.1.23.2.6 Gatherings such as meetings or parties in public areas

105.1.23.2.7 Moved structures

105.1.23.2.8 Open flames (See also Open Flame Permit in Section 105.1.16, above)

105.1.23.2.9 Project laydown and storage areas (See also Public Space Policy in Section 105.1.23, above)

105.1.23.2.10 Roof Work (See also Roof Access Permit in Section 105.1.18, above and Roof Hot Work Permit in Section 105.1.19, above)

105.1.23.2.11 Temporary Structures

105.1.23.2.12 Temporary Use of Equipment

105.1.23.2.13 Use of Explosives (See also Use of Explosives Permit in Section105.1.22, above)

105.1.23.3 Approving Authority – PBMO Special Events Office

105.1.23.4 Document Control – PBMO Special Events Office

105.1.24 **Utility Outage Permit**

105.1.24.1 Section 105.1.24 adopts by reference the latest edition of the Utility Outage Permit, as published by PBMO O&M, under the delegated authority of the Director, FSD. Forms can be obtained by contacting PBMO O&M at 703-693-8084.

105.1.24.2 When Required – Whenever a utility outage (electrical, mechanical, plumbing, telecommunication, fire protection, etc.) is required to complete work on WHS property.

105.1.24.3 Approving Authority – PBMO O&M

105.1.24.4 Document Control – PBMO O&M

105.1.25 **Utility Space Access Permit** (Reserved)

105.1.25.1 Section 105.1.25 adopts by reference the latest edition of the Utility Space Access Permit, as published by PBMO O&M, under the delegated authority of the Director, FSD. Forms can be obtained by contacting PBMO O&M at 703-693-8084.

105.1.25.2 When Required – Reserved

105.1.25.3 Approving Authority – PBMO

105.1.25.4 Document Control - Reserved

105.2 Work exempt from permit.

Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code.

105.2.1 Emergency repairs.

105.2.1.1 *Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the BCO.

105.2.1.2 Emergency repairs must meet all applicable WHSBC requirements.

105.2.2 Repairs.

Application or notice to the BCO is not required for ordinary repairs to structures, replacement of lamps, or the connection of approved portable electrical equipment to approved permanently installed receptacles. Such repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.

105.2.3 Cosmetic. (Reserved)

105.2.4 Movable Furniture. (Reserved)

105.3 Application for Permits.

See each specific permit for application instructions.

105.4 Validity of Permits.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code. Permits presuming to give authority to violate or cancel the provisions of this code shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the Approving Authority from requiring the correction of errors in the construction documents and other data. The Approving Authority is also authorized to prevent occupancy or use of a structure where in violation of this code.

105.5 Expiration.

Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The Approving Authority is authorized to grant in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

105.6 Suspension or Revocation.

The Approving Authority is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any provisions of this code.

105.7 Placement of Permits.

The permit or copy shall be kept on the work site until the completion of the project.

106.0 FLOOR AND ROOF DESIGN LOADS

106.1 Live loads posted.

Where the live loads for which each floor or portion thereof of a commercial or industrial building are or have been designed to exceed 50 psf (2.40 kPa), such design live loads shall be conspicuously posted by the project manager in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

106.2 Issuance of certificate of occupancy.

A certificate of occupancy required by Section 111.0 shall not be issued until the floor load signs, required by Section 0, have been installed.

106.3 Restrictions on loading.

It shall be unlawful to place, or cause or permit to be placed, on any floor or roof of a building, structure or portion thereof, a load greater than is permitted by this code.

107.0 SUBMITTAL DOCUMENTS FOR BUILDING CODE PERMITS

107.1 General.

Submittal documents consisting of construction documents, statement of special inspections, geotechnical report, military real property forms, and other data shall be submitted as described herein. The construction documents shall be prepared by a registered design professional where required by this code and/or the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the BCO is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The BCO is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

107.1.1 All project deliverables and data shall be submitted to the appropriate Document Control (as outlined in Section 105.1, above). The number of hard copy and electronic submittals of all design deliverables, coordination drawings, equipment submittals, Systems Operation Maintenance Manuals (SOMMs), O&M Manuals, and As-Built drawings as set by the individual Document Control group. Document Control will archive all applicable documents.

107.1.1.1 Electronic Submission requirements:

107.1.1.1.1 All electronic data shall produce an exact reproduction of its respective hardcopy when printed.

107.1.1.1.2 Provide 2D and 3D wire-frame drawing source files in Bentley's Micro Station Design ™ (DGN) format and include all drawing support. Provide dynamic links source files to database or other documents when beneficial.

107.1.1.1.3 All CAD drawings shall comply with the Pentagon Renovation & Construction Program Electronic Data Standards. To request a copy, please contact the enterprise Facilities Information center (eFIC) at 703-614-1200.

107.1.1.1.4 Provide document source files in Microsoft Office Professional formats. Provide each document in Portable Document Format (PDF) which is book-marked and fully text-retrievable. Provide a coversheet containing key cataloging information and a table of contents.

107.1.1.1.5 Provide database source files in Microsoft Access format. Provide complete database schema (plan) and user manual with database applications. Provide PDF version of reports generated from database applications.

107.2 Construction documents.

Construction documents shall be in accordance with Sections 107.2.1 through 107.2.6. The BCO is authorized to waive or modify the requirement for a plan when the application for permit is for alteration or repair or when otherwise warranted.

107.2.1 Information on construction documents.

Construction documents shall be dimensioned and drawn upon suitable material. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the BCO.

107.2.2 Fire protection system shop drawings.

Shop drawings for the fire protection system(s) shall be submitted as required by Sections 209.4 and 209.5 of this code. The construction documents and calculations shall be approved prior to the start of system installation or modifications. Shop drawings shall contain all information as required by Sections 209.4 and 209.5 of this code.

107.2.3 Life safety plan.

The construction documents shall show in sufficient detail the location, construction, size, and character of all portions of the means of egress in compliance with the provisions of this code. The construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

107.2.4 Exterior wall envelope.

Construction documents for all projects affecting or including exterior walls shall describe the exterior wall envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including security/blast protection, flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane, and details around openings. The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the security and weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system which was tested, where applicable, as well as the test procedure used.

107.2.5 Site plan.

The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. For alteration and renovation work that occurs entirely within the interior of an existing building footprint, an exterior site plan is not required.

107.2.5.1 Design flood elevations.

Where design flood elevations are not specified, they shall be established in accordance with IBC Chapter 16.

107.2.6 Materials.

Sufficient technical data shall be submitted to substantiate the proposed use of any material, equipment, device, or assembly and proof of performance for the use intended. Determination of any material, equipment, device or assembly is based on (1) compliance with code, (2) items listed by nationally recognized independent testing laboratories, or (3) recommendations of architects and engineers.

107.3 Examination of documents.

The BCO shall examine or cause to be examined the accompanying submittal documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this code.

107.3.1 Approval of construction documents.

When the BCO, designated representative or responsible party issues a permit, the construction documents shall be approved, in writing or by stamp, as "Reviewed for Code Compliance." One set of construction documents so reviewed shall be retained by Document Control. One set shall be returned to the applicant, be kept at the work site, and be open to inspection by the BCO, SBCO, or a duly authorized representative.

107.3.2 Reserved.

107.3.3 Phased approval.

The BCO is authorized to issue a building code permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted.

107.3.4 Design professional in responsible charge.

107.3.4.1 General.

When it is required that documents be prepared by a registered design professional, the BCO shall be authorized to require the project manager to engage and designate on the building code permit application a registered design professional who shall act as the registered design professional in responsible charge. If the circumstances require, the PM shall designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered design professional in responsible

charge. The BCO shall be notified in writing by the project manager if the registered design professional in responsible charge is changed or is unable to continue to perform the duties.

The registered design professional in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building.

107.3.4.2 Deferred submittals.

For the purposes of this section, deferred submittals are defined as those portions of the design that are not submitted at the time of the application and that are to be submitted to the BCO within a specified period. Deferral of any submittal items shall have the prior approval of the BCO. The registered design professional in responsible charge shall list the deferred submittals on the construction documents for review by the BCO. Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the BCO with a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the BCO.

107.4 Amended construction documents.

Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

107.4.1 *For minor changes, red-line drawings are acceptable.

107.4.2 Red-line drawings shall be based off of the final approved design drawings and shall accurately illustrate any and all field made changes.

107.4.3 The red-line drawings shall be at all inspections and incorporate all changes made to that point.

107.5 Retention of construction documents.

One set of approved construction documents shall be retained by the Document Control for a period of not less than 180 days from date of completion of the permitted work, or as required by federal laws, whichever is greater.

107.6 Real Property Asset Management (RPAM).

107.6.1 Real Property Accountability.

RPAM is responsible for the proper custody, safekeeping, efficient and effective use of all buildings, structures, utilities, improvements, and lands under the control of the WHS. Maintains a formal set of property accounting records that show, on a continuing basis, the item identification, gain , and loss, on-hand balance, conditions, and location of all real property. Ensures real estate actions are legally bound and documented with real estate instruments. Promotes sound and efficient practices of real property management practices and procedures.

107.6.2 All capital improvement and new construction projects costing $20,000 and greater require the submission of DD Form 1354, Transfer and Acceptance of Military Real Property (Available at http://www.dtic.mil/whs/directives/infomgt/forms/eforms/dd1354.pdf), provided to the FSD Real Property Officer, in accordance with UFC 1-300-08, Criteria for Transfer and Acceptance of Military Real Property.

107.6.3 Three DD Form 1354s will be submitted; Draft, Interim and Final.

107.6.3.1 Draft.

107.6.3.1.1 The Draft DD Form 1354 shall be completed early on in the project, no later than the final design completion to ensure the level of detail and the different components of a project are explained.

107.6.3.1.2 The level of detail shall include the category code number for the project i.e. administrative space, dining facility, sidewalk, exterior lighting etc., with costs and units of measure broken out accordingly. WHS uses DA PAM 415-28 list of category codes and descriptions.

107.6.3.2 Interim.

107.6.3.2.1 *The Interim DD Form 1354 shall be submitted one month prior to the project being available for use.

107.6.3.2.2 The interim form submission shall include actual costs that have been expended to date as well as the following supporting documentation:

Work orders, DD Form 1391 (MILCON only)
Contract, modifications
Statement of work (dollar amounts, location, source of funds, parties to the contract and signature page required)
Approved invoices
Material inspection and receiving reports
Evidence of in-house labor
Drawings
Direct and indirect costs are to be included.

107.6.3.2.3 The interim form shall include any punch lists of items to be corrected prior to final acceptance.

107.6.3.2.4 The source of funds is also to be annotated, i.e., O&M, NAF, other agency/service, and private donation.

107.6.3.2.5 The interim DD Form 1354 must be signed by the transferring and accepting officials before the assets are placed in service.

107.6.3.3 Final.

107.6.3.3.1 The Final DD Form 1354 shall be completed once all costs have been expended and the project is ready for close out.

107.6.3.3.2 The final DD Form 1354 shall include the total final cost for each real property asset in a project and any corrections that need to be annotated. Additional supporting documentation that provides an audit trail of costs must be included.

107.6.3.3.3 The items listed in the punch lists at the interim must have been corrected or explanations of why they were not corrected shall be provided.

107.6.3.3.4 The source of funds is also to be annotated, i.e., O&M, NAF, other agency/service, and private donation.

107.6.3.3.5 The final DD Form 1354 must be signed by the transferring and accepting officials for a project to be completed.

108.0 TEMPORARY STRUCTURES AND USES

108.1 General.

The BCO is authorized to issue a building code permit for temporary structures and temporary uses (See Section 105.1.23). Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The BCO is authorized to grant extensions for demonstrated cause.

108.2 Conformance.

Temporary structures and uses shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation, and sanitary requirements of this code as necessary to ensure public health, safety and general welfare.

108.3 Temporary power.

The BCO is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in NFPA 70.

108.4 Termination of approval.

The BCO is authorized to terminate such permit for a temporary structure or use and to order the temporary structure or use to be discontinued.

109.0 RESERVED

110.0 INSPECTIONS

110.1 General.

Construction or work for which a building code permit is required shall be subject to inspection by the BCO and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code. Inspections presuming to give authority to violate or cancel the provisions of this code shall not be valid. It shall be the duty of the building coe permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the BCO nor Standards and Compliance shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

110.2 Preliminary inspection.

Before issuing a building code permit, the BCO is authorized to examine or cause to be examined buildings, structures, and sites for which an application has been filed.

110.3 Required inspections.

Upon request from the building code permit holder, the BCO shall make the inspections set forth in Sections 0 through 0, as applicable. Contractor shall not schedule/request an inspection without a reasonable expectation that the work to be inspected will be completed at the time of the inspection. Penalties may be applied to the Contractor by the KO if less than 24 hours notice is given for cancellation of a scheduled/requested inspection.

110.3.1 Footing and foundation inspections.

Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.

110.3.2 Underground inspections.

Underground installations shall be inspected after all piping, utilities, footings, support systems, etc., have been installed, and prior to backfilling.

110.3.3 Concrete slab, foundation wall, and under-floor inspections.

Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories, and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.

110.3.4 Lowest floor elevation inspections.

In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification required in Section 216.0 shall be submitted to the BCO.

110.3.5 Roof Framing inspections.

Roof framing inspections shall be made after the roof deck or sheathing, all framing, fireproofing, fire blocking, and bracing are in place and pipes, chimneys, and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes, and ducts are approved. Framing inspection shall be conducted prior to covering.

110.3.6 Wall Framing inspections.

Wall framing inspection shall be made after the wall framing, all fireblocking, fireproofing, and bracing are in place. Framing inspection shall be conducted prior to installation of utilities and wall coverings.

110.3.7 Wall Close-in inspections.

Wall close-in inspection shall be conducted after wall framing, bracing, and fireproofing is complete and after all utilities have been installed. Close-in inspections shall take place immediately prior to installation of insulation and wall covering material(s).

110.3.8 Ceiling Close-in inspections.

Ceiling close-in inspection shall be conducted after all framing, fireproofing, and firestopping are in place and installation of all above-ceiling utilities is finalized. Close-in inspections shall take place immediately prior to installation of the ceiling covering materials.

110.3.9 Lath and gypsum board inspections.

Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

110.3.10 Fire- and smoke-resistant penetration inspections.

Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers, and smoke partitions shall not be concealed from view until inspected and approved.

110.3.11 Energy efficiency inspections.

Inspections shall be made to determine compliance with Section 213.0 of this code and shall include, but not be limited to, inspections for: envelope insulation R- and U-values, fenestration U-value, duct system R-value, and HVAC and water heating equipment efficiency.

110.3.12 Elevator inspections.

Elevators shall be tested and inspected as required in Section 230.0 of this code.

110.3.13 Fire protection and fire alarm inspections.

Fire protection/fire alarm inspections shall include verification of sprinkler and standpipe piping support, sprinkler location/placement, system components, conduit installation, detection/notification equipment placement, etc. Final fire protection and fire alarm inspections are required after completion of the work, prior to issuance of the Certificate of Occupancy. Fire protection and alarm systems shall be inspected prior to commencement of work in areas where existing systems are to remain in place and/or only minor modifications are to be made.

110.3.14 Life safety inspections.

Life safety inspections shall include verification of exit signs, handrails, available stair, door and corridor widths, travel distances, etc. Final life safety inspections are required after completion of the work, prior to issuance of the Certificate of Occupancy. Life safety components shall be inspected prior to commencement of work in areas where existing systems are to remain in place and/or only minor modifications are to be made.

110.3.15 Accessibility inspections (Reserved) See Section 211.0 of this code.

110.3.16 Mechanical inspections (Reserved) See Section 228.0 of this code.

110.3.17 Electrical inspections (Reserved) See Section 227.0 of this code.

110.3.18 Plumbing inspections (Reserved) See Section 229.0 of this code.

110.3.19 Other inspections.

In addition to the inspections specified above, the BCO is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code.

110.3.20 Special inspections.

For special inspections, see Section 231.0 of this code.

110.3.21 *Preparation for Final Code Compliance Inspection.

Before scheduling a Final Code Compliance Inspection, the contractor/builder shall verify to the satisfaction of the PM/COR that all work is complete and ready for occupancy.

110.3.22 Final Code Compliance Inspection.

The BCO shall perform a final code compliance inspection after all work and inspections required by the building code permit are completed and before issuance of the Certificate of Occupancy to ensure that any defective work or discrepancies have been corrected and all work conforms with this code. Penalties may be applied to the Contractor by the KO if an excessive number of inspection deficiencies are observed during the final inspection resulting in a new final inspection.

110.4 Inspection agencies.

The BCO is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

110.5 Inspection requests.

The building code permit holder shall assure that at least the minimum required inspections listed on the building code permit have been conducted and approved prior to requesting a certificate of occupancy. The building code permit holder or their designated representative shall request inspections from the BCO. The permit holder shall make access arrangements and provide a means for inspections of such work that is required by this code.

110.6 Approval required.

Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the BCO. The BCO, upon notification and within a reasonable timeframe, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the building code permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered, concealed, or otherwise deemed complete until authorized by the BCO.

110.7 Reports of inspections.

A record of all reports of inspections, tests, examinations, discrepancies and approvals shall be maintained by the BCO and shall be communicated promptly in writing to the permit holder.

111.0 CERTIFICATE OF OCCUPANCY

111.1 Use and occupancy.

No building, structure, or area shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made, until the BCO has issued a certificate of occupancy as provided herein. A certificate of occupancy indicating completion of the work for which a permit was issued shall be obtained prior to any occupancy of a structure. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code.

Exception: Certificates of occupancy are not required for work exempt from permits under Section 105.2.

111.2 Certificate issued.

111.2.1 Application for Certificate.

The building code permit holder shall file an application for a Certificate of Occupancy with the BCO (Attachment 4). The application may be filed prior to a final inspection but will not be finalized and no certificate will be issued until completion of the final code compliance inspection discussed in Section 0, above.

111.2.2 Issuance of Certificate.

After the BCO inspects the building or structure and finds no violations of the provisions of this code or other laws that are enforced by SCD, the BCO shall issue a certificate of occupancy that contains the following:

1. The permit type and number.
2. The address or location of the project or structure.
3. The name and contact information for the occupant.
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
6. The name of the BCO.
7. The edition of the code(s) under which the permit was issued.
8. The use and occupancy, in accordance with the provisions of Section 203.0.
9. The type of construction as defined in Section 206.0
10. The design occupant load.
11. If an automatic sprinkler system is provided, whether the sprinkler system is required.
12. Any special stipulations and conditions of the building code permit.

111.3 Temporary occupancy.

The BCO is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely. The BCO shall set a time period during which the temporary certificate of occupancy is valid.

111.4 Revocation.

The BCO is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any of the provisions of this code.

112.0 SERVICE UTILITIES

112.1 Connection of service utilities.

No person shall make connections from a utility, source of energy, fuel, or power to any building or system that is regulated by this code for which a permit is required, until released by the BCO and the Building Manager.

112.2 Temporary connection.

The BCO, in conjunction with the Building Manager, shall have the authority to authorize the temporary connection of the building or system to the utility source of energy, fuel or power.

112.3 Authority to disconnect service utilities.

The BCO, in conjunction with the Building Manager, shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the referenced codes and standards set forth in Section 101.4 in case of emergency, where necessary to eliminate an immediate hazard to life or property, or when such utility connection has been made without the approval required by Section 112.1or 112.2.

112.4 Exemptions.

Equipment and related wiring installed by a provider of publicly regulated utility service or a franchised cable television operator, and electrical equipment and related wiring used for radio, broadcast or cable television, telecommunications or information service transmission are exempt. Such exempt equipment and wiring shall be under the ownership and control of the service provider or its affiliates and shall be located on either public rights of way or buildings and structures for which the service provider has rights of occupancy and entry; however, the structures, including their service equipment, housing or supporting infrastructure of such exempt equipment and wiring shall be subject to this section. The installation of equipment and wiring exempted by this section shall not create an unsafe condition prohibited by code.

113.0 APPEALS

113.1 Consideration for appeals.

Any person shall be permitted to appeal a decision of the BCO to the AHJ when it is claimed that any one or more of the conditions listed below exist.

113.1.1 The true intent of this code has been incorrectly interpreted.

113.1.2 The provisions of the WHSBC or other codes do not fully apply.

113.1.3 A decision is unreasonable or arbitrary as it applies to alternatives or new materials.

114.0 VIOLATIONS

114.1 Non-Compliance.

No person, firm, or corporation may erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code.

114.2 Notice of violation.

The BCO is authorized to serve a notice of violation or order on the COR/PM/KO responsible for the erection, construction, alteration, extension, repair, moving, removal, demolition, or occupancy of a building or structure in violation of the provisions of this code, or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation. Where violations pose a danger to life or property; a party is guilty of repeated failure to correct violations; the defective work or use has not been remedied within a reasonable time following an inspection report; or any other directive has not been complied with within a reasonable time, a notice of violation order may suspend or revoke a temporary or permanent Certificate of Occupancy. The notice of violation order shall indicate the right of appeal by referencing the appeals section. Appeals should be directed to the AHJ.

114.3 Prosecution of violation.

If the notice of violation is not complied with promptly, the BCO is authorized to request the COR/PM/KO, or if there is no KO, the Director, FSD, to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

114.4 Violation penalties.

At the discretion of the COR/PM/KO, any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the BCO, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by contract and/or regulation.

115.0 STOP WORK ORDER

115.1 Authority.

115.1.1 The BCO or a designated representative is authorized to issue a stop work order for any condition deemed an immediate danger to life or health.

115.1.2 The PM/COR, KO, or the Director, FSD, is authorized to issue a stop work order when the BCO determines that work regulated by this code is being performed in a manner contrary to the provisions of the code.

115.2 Issuance.

The stop work order shall be in writing and shall be given to the project manager involved or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

115.3 Unlawful continuance.

Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by contract or regulation.

116.0 UNSAFE STRUCTURES AND EQUIPMENT

116.1 Conditions.

Structures or equipment that are or hereafter become unsafe, unsanitary, or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. Unsafe structures shall be taken down and removed or made safe as the BCO deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe.

116.2 Record.

The BCO shall cause a report to be filed on an unsafe condition. The report shall state the occupancy of the structure and the nature of the unsafe condition.

116.3 Notice.

If an unsafe condition is found, the BCO shall serve on the person in control of the structure, a written notice that describes the condition deemed unsafe and specifies the required repairs or improvements to be made to abate the unsafe condition, or that requires the unsafe structure to be demolished within a stipulated time. Such notice shall require the person thus notified to declare immediately to the BCO acceptance or rejection of the terms of the order.

116.4 Method of service.

Such notice shall be deemed properly served if delivered in a manner approved by WHS Office of the General Counsel (WHS OGC). Service of such notice upon the owner's agent or upon the person responsible for the structure shall constitute service of notice upon the owner.

116.5 Restoration.

The structure or equipment determined to be unsafe by the BCO is permitted to be restored to a safe condition. To the extent that repairs, alterations or additions are made or a change of occupancy occurs during the restoration of the structure, such repairs, alterations, additions, or change of occupancy shall comply with the requirements of Sections 105.2.1 and 105.2.2.

117.0 COMMISSIONING

117.1 *Requirements.

The BCO/AHJ may require the implementation of a commissioning process depending upon the type of project, size and complexity, degree of interface with WHS utility infrastructure, and whether or not equipment will be turned over to WHS for Operations and Maintenance.

118.0 RESERVED

119.0 SITE LIMITATIONS

119.1 While installing building structures or during demolition, noise shall not exceed 85 dba to any tenant in their space at any one time during normal business hours of a normal 5 day work week.

200.0 **WHSBC TECHNICAL AMENDMENTS**

201.0 **CHAPTER 1 – ADMINISTRATION**

This code adopts the International Building Code (IBC) by reference, as the base building code for the Washington Headquarters Services except as modified herein, see Section 101.5.

201.1 Use Section 100.0 of this document in lieu of IBC Chapter 1.

201.2 Military Department, Defense Agency, and DoD Field Activity specific exceptions/requirements identified within referenced UFC documents or UFGSs do not apply unless specifically adopted by this document.

201.3 No construction, alteration, or repair shall reduce the level of fire protection or life safety provided by existing conditions.

201.4 Wherever the terms "Installation", "Base", "Basewide" are used in the UFCs, these terms shall also be meant to include the term "Facility".

202.0 **CHAPTER 2 – DEFINITIONS**

202.1 Use IBC Chapter 2 and definitions in Section 101.7.

202.2 Definitions apply to terms used in the model code, and are not intended to replace definitions and terms in military documents.

203.0 **CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION**

Use IBC Chapter 3 and UFC 3-600-01. If any conflict occurs between IBC Chapter 3 and UFC 3-600-01, the requirements of UFC 3-600-01 take precedence.

203.1 UFC 3-600-01, Chapter 1 – Introduction is supplemented by Section 100.0 of this code.

203.2 Modifications to UFC 3-600-01, Chapter 2 – Building Construction can be found in Section 207.2 and 210.2.

203.3 Modifications to UFC 3-600-01, Chapter 3 – Water Supply for Fire Protection, can be found in Section 209.3.

203.4 Modifications to UFC 3-600-01, Chapter 4 – Fire Extinguishing Systems, can be found in Section 209.4.

203.5 Modifications to UFC 3-600-01, Chapter 5 – Fire Alarm Systems, can be found in Section 209.5.

203.6 Modifications to UFC 3-600-01, Chapter 6 – Special Occupancies and Hazards, can be found in Section 204.6.

204.0 **CHAPTER 4 – SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY**

Use UFC 3-600-01 in lieu of IBC Chapter 4.

204.1 UFC 3-600-01, Chapter 1 – Introduction is supplemented by Section 100.0 of this code.

204.2 Modifications to UFC 3-600-01, Chapter 2 – Building Construction can be found in Section 207.2 and 210.2.

204.3 Modifications to UFC 3-600-01, Chapter 3 – Water Supply for Fire Protection, can be found in Section 209.3.

204.4 Modifications to UFC 3-600-01, Chapter 4 – Fire Extinguishing Systems, can be found in Section 209.4.

204.5 Modifications to UFC 3-600-01, Chapter 5 – Fire Alarm Systems, can be found in Section 209.5.

204.6 Modifications to UFC 3-600-01, Chapter 6 – Special Occupancies and Hazards, can be found below:

204.6.1 Reserved.

204.6.2 Personnel Housing and Similar Facilities. (UFC 3-600-01, Section 6-2).

204.6.3 Family Housing (UFC 3-600-01, Section 6-3).

204.6.4 Food Preparation in Facilities (UFC 3-600-01, Section 6-4).

204.6.4.1 *Revise Section 6-4.1 to read: Hood and duct systems for public and private commercial cooking equipment that produces smoke or grease-laden vapors must comply with NFPA 96, "*Ventilation Control and Fire Protection of Commercial Cooking Operations*" and NFPA 17A, "*Standard for Wet Chemical Extinguishing Systems*". For new construction and new complete system installations, limit commercial kitchen extinguishing systems to water-assisted wet chemical installed in accordance with NFPA 96, NFPA 17A, and UL 300. Automatic sprinklers shall not be permitted for protection of kitchen hood and duct systems. Install fire suppression systems that sound a general building fire alarm and transmit a signal to a constantly attended location.

204.6.4.2 Revise first sentence of Section 6-4.2 to read: All residential type range top cooking surfaces must be equipped with an approved residential range top extinguishing system in accordance with Section 204.6.4.5.

204.6.4.3 Add Section 6-4.3: Ventilation Equipment.

204.6.4.3.1 Add Section 6-4.3.1 - Where commercial cooking appliances are vented by means of the Type I or II kitchen exhaust hood system that serves such appliances, the exhaust system shall be fan powered and the gas and electric appliances shall be interlocked with the exhaust hood system to prevent appliance operation when the exhaust hood system is not operating.

204.6.4.3.2 Add Section 6-4.3.2 - Grease ducts shall require the installation of a continuous 2 hour fire barrier from the kitchen hood to the exhaust fan using a 2 hour fire barrier duct wrap, 2 hour fire resistant shaft type enclosure, or combination.

204.6.4.4 Add Section 6-4.4: Bypass. Where a solenoid valve is installed in the gas piping as part of an interlock system, a bypass line no larger than a 1/2 inch (12.7 mm) shall be installed to continuously supply the pilot(s) when the exhaust fan is not operating.

204.6.4.5 *Add Section 6-4.5 Residential Cooking Equipment.

Use of residential style stoves/ranges must be approved by OPFM and the Building Manager.

204.6.4.5.1 Residential style stoves/ranges shall be located under a metal hood.

204.6.4.5.2 Residential style stoves/ranges shall be protected with a listed residential style fire suppression system acceptable to OPFM.

204.6.4.5.3 Residential style stoves/ranges shall be protected with a fire suppression system with an automatic fuel shut-off connected to all sources of fuel and electric that produce heat to the equipment being protected by that system.

204.6.4.5.4 Fire suppression systems protecting kitchen appliances shall be connected to the fire alarm system.

204.6.4.6 Dampers shall not be installed in the exhaust system.

204.6.4.7 Construction and renovation of food preparation, food service and food storage facilities shall comply with the requirements of the Tri Service Food Code.

204.6.5 Detention and Correctional Facilities (UFC 3-600-01, Section 6-5 and NFPA 101).

204.6.6 Libraries (UFC 3-600-01, Section 6-6).

204.6.7 Child Development Facilities (UFC 3-600-01, Section 6-7, NFPA 101, UFC 4-740-14, and UFC 4-740-06).

204.6.8 Electronic Equipment Installations (UFC 3-600-01, Section 6-8).

In Section 6-8, delete the word "major" from the first sentence. These requirements shall apply to all automatic data processing (ADP) areas and all rooms with equipment on mission critical power, including telecommunications rooms. Private telecommunications facilities outside scope of public are addressed in UFC 3-600-01 Section 6-9.

204.6.8.1 Section 6-8.1 – Add Exception: For spaces that are normally unoccupied and are 500 sq ft or less in area, delete NFPA 75 requirement for separately valved sprinkler systems.

204.6.8.1.1 Change Section 6-8.1.1 to read:

Electronic equipment rooms and spaces must be protected by very early smoke detection. Systems shall provide not less than 3 distinct alarm conditions/levels indicating increasing smoke/combustion conditions. Very early smoke detection must notify equipment operators at all alarm levels and the constantly attended alarm receiving location for all facilities where operators are not in constant attendance.

204.6.8.1.2 Section 6-8.1.2 – Change last sentence to read: Electrical equipment shall be protected by disconnecting the power upon activation of heat detectors that are of lower temperature than the sprinklers protecting the space."

204.6.9 Telecommunications (Telecom) Rooms and Buildings (UFC 3-600-01, Section 6-9).

204.6.9.1 Change Section 6-9.3 to read:

Telecom equipment rooms and spaces must be protected by very early smoke detection. Systems shall provide not less than 3 distinct alarm conditions/levels indicating increasing smoke/combustion conditions. Very early warning smoke detection must notify equipment operators at all alarm levels and the constantly attended alarm receiving location for all facilities where operators are not in constant attendance.

204.6.10 Ordnance (UFC 3-600-01, Section 6-10).

204.6.11 Warehouse and Storage Facilities (UFC 3-600-01, Section 6-11).

204.6.11.1 Section 6.11.1 - Change 5000 sq ft (465 sq m) to 3000 sq ft (279 sq m).

204.6.12 Storage of Flammable and Hazardous Materials and Hazardous Waste (UFC 3-600-01, Section 6-12).

204.6.13 Waterfront Facilities (UFC 3-600-01, Section 6-13).

204.6.14 Petroleum Fuel Facilities (UFC 3-600-01, Section 6-14 and UFC 3-460-01).

204.6.15 Hydraulic Systems (UFC 3-600-01, Section 6-15).

204.6.16 Aircraft Facilities (UFC 3-600-01, Section 6-16).

204.6.17 Aircraft Acoustical Facilities (UFC 3-600-01, Section 6-17).

204.6.18 Hyberbaric and Hypobaric Chambers (UFC 3-600-01, Section 6-18).

204.6.19 Anechoic Chambers (UFC 3-600-01, Section 6-19).

204.6.20 Liquid Oxygen (LOX) (UFC 3-600-01, Section 6-20).

204.6.21 Department of Defense Dependent Schools (DODDS) (UFC 3-600-01, Section 6-21).

204.6.22 Vehicle Parking, Storage, Maintenance and Repair Facilities (UFC 3-600-01, Section 6-22).

204.6.23 Pesticide Storage and Handling Facilities (UFC 3-600-01, Section 6-23).

204.6.24 Windowless (Limited Access) Structures (UFC 3-600-01, Section 6-24).

204.6.25 Underground Structures (UFC 3-600-01, Section 6-25).

204.6.26 Gas Service (UFC 3-600-01, Section 6-26).

204.6.27 Coal (UFC 3-600-01, Section 6-27).

204.6.28 Power Generating and Utilization Equipment (UFC 3-600-01, Section 6-28).

204.6.29 Trash Collection and Disposal Facilities (UFC 3-600-01, Section 6-29).

204.6.30 Protection of Elevator Machine Rooms and Hoistways (UFC 3-600-01, Section 6-30).

204.6.30.1 Change first bullet of Section 6-30.2 to read: All elevator lobbies. Where ambient conditions are beyond the listing parameters for the smoke detector, a heat detector shall be provided.

204.6.31 Tension Fabric Structures (UFC 3-600-01, Section 6-31).

204.6.32 Commissaries and Exchanges (UFC 3-600-01, Section 6-32).

204.6.33 Morale Welfare and Recreation Facilities (UFC 3-600-01, Section 6-33).

204.6.34 Multistory Buildings (UFC 3-600-01, Section 6-34).

204.6.35 Combustible Construction (UFC 3-600-01, Section 6-35).

204.6.36 Missile Alert Facilities (MAF) (UFC 3-600-01, Section 6-36).

204.6.37 Emergency Services Communication Centers (UFC 3-600-01, Section 6-37).

204.6.38 High Rise Buildings (UFC 3-600-01, Section 6-38).

204.6.38.1 Smokeproof Enclosure Requirements (UFC 3-600-01, Section 6-38 and NFPA 101).

204.6.39 Hydrogen Facilities (UFC 3-600-01, Section 6-39)

204.6.40 Medical Facilities (UFC 3-600-01, Section 6-40 and UFC 4-510-01).

204.6.41 Historical Listed Facilities (UFC 3-600-01, Section 6-41)

204.6.42 Secure Compartmented Information Facility (SCIF) (UFC 3-600-01, Section 6-42)

Replace Section 6-42 with the following:

204.6.42.1 6-42.1 SCIFs must comply with the egress requirements of NFPA 101.

204.6.42.2 6-42.2 Locks (Reserved)

204.6.42.3 6-43.3 Fire Alarm Notification

204.6.42.3.1 Add Section 6-42.3.1 – Audible alarm notification appliances shall be provided and shall produce a distinctive sound that is not to be used for any purpose other than that of a fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 65 dBA; 15 dBA above the average ambient sound level; or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is higher.

204.6.42.3.2 Add Section 6-42.3.2 – Where audible circuits must pass a Sensitive Compartmented Information Facility (SCIF) boundary, a means must be provided to prevent listening across the SCIF boundary.

205.0 CHAPTER 5 – GENERAL BUILDING HEIGHTS AND AREAS

Use IBC Chapter 5, except as modified by UFC 3-600-01 for limitations on use of IBC Table 503. The building area for funding and planning purposes may be calculated differently than the method defined in IBC Chapter 5.

205.1 UFC 3-600-01, Chapter 1 – Introduction is supplemented by Section 100.0 of this code.

205.2 Modifications to UFC 3-600-01, Chapter 2 – Building Construction can be found in Section 207.2 and 210.2.

205.3 Modifications to UFC 3-600-01, Chapter 3 – Water Supply for Fire Protection, can be found in Section 209.3.

205.4 Modifications to UFC 3-600-01, Chapter 4 – Fire Extinguishing Systems, can be found in Section 209.4.

205.5 Modifications to UFC 3-600-01, Chapter 5 – Fire Alarm Systems, can be found in Section 209.5.

205.6 Modifications to UFC 3-600-01, Chapter 6 – Special Occupancies and Hazards, can be found in Section 204.6.

206.0 **CHAPTER 6 - TYPES OF CONSTRUCTION**

Use IBC Chapter 6 and UFC 3-600-01. If any conflict occurs between IBC Chapter 6 and UFC 3-600-01, the requirements of UFC 3-600-01 take precedence.

206.1 UFC 3-600-01, Chapter 1 – Introduction is supplemented by Section 100.0 of this code.

206.2 Modifications to UFC 3-600-01, Chapter 2 – Building Construction can be found in Section 207.2 and 210.2.

206.3 Modifications to UFC 3-600-01, Chapter 3 – Water Supply for Fire Protection, can be found in Section 209.3.

206.4 Modifications to UFC 3-600-01, Chapter 4 – Fire Extinguishing Systems, can be found in Section 209.4.

206.5 Modifications to UFC 3-600-01, Chapter 5 – Fire Alarm Systems, can be found in Section 209.5.

206.6 Modifications to UFC 3-600-01, Chapter 6 – Special Occupancies and Hazards, can be found in Section 204.6.

207.0 **CHAPTER 7 – FIRE-RESISTANCE-RATED CONSTRUCTION**

Use IBC Chapter 7 and UFC 3-600-01. If any conflict occurs between IBC Chapter 7 and UFC 3-600-01, the requirements of UFC 3-600-01 take precedence.

207.1 UFC 3-600-01, Chapter 1 – Introduction is supplemented by Section 100.0 of this code.

207.2 Modifications to UFC 3-600-01, Chapter 2 – Building Construction can be found in Section 210.2 and below.

207.2.1 Change the title of Section 2-1.2 to “Fire Barriers and Fire Partitions”. The following requirements shall also apply:

(1) In the Pentagon, the A Ring and E Ring walls shall be of one-hour fire resistance rated construction. *Exception: For renovation work beyond interior finish in the A Ring or E Ring corridors that are currently not rated, if the work involves 10 linear feet (3.05 m) or less, or involves only door replacement, then the wall does not need to be upgraded at time of renovation.*

(2) In the Pentagon, the radial corridor walls shall be of two-hour resistance rated construction. *Exception: For renovation work beyond interior finish in radial corridors that are currently not rated, if the work involves 10 linear feet (3.05 m) or less, or involves only door replacement and said wall or door is not immediately adjacent to a two-hour rated wall, then the wall does not need to be upgraded at time of renovation.*

(3) Storage rooms between 100 sq ft (9.29 sq m) and 500 sq ft (46.45 sq m) shall be of one-hour fire resistance rated construction. Storage rooms greater than 500 sq ft (46.45 sq m) shall be of two-hour fire resistance rated construction.

(4) Electrical rooms shall be of one-hour fire resistance rated construction. Medium and high voltage electrical vaults and oil-insulated transformer vaults shall be of three-hour fire resistance rated construction.

(5) Telecommunications rooms shall be a minimum of one-hour fire resistance rated construction.

(6) Laboratory space shall be separated from all other space by two-hour fire resistance rated construction if flammable liquids of any quantity may be used.

(7) Paint a continuous minimum 8 inch (203 mm) wide solid red stripe for the length of the wall.

(8) Labeling - For all fire rated barriers and partitions, provide a stenciled label every 8 ft (2.4 m) to identify fire resistance rating and penetration requirements as shown below:

X HOUR FIRE RATED WALL
DO NOT PENETRATE WITHOUT
APPROVAL OF THE FIRE MARSHAL

The first line shall have stenciled letters no smaller than 1 inch (25.4 mm) in height. The second and third lines shall have stenciled letters no smaller than 5/8-inch (15.8 mm) in height. Striping may be interrupted at the point of stenciling if desired.

207.2.2 Change the title of Section 2-2.3 to "Fire Walls"

207.2.2.1 Labeling shall comply with the requirements of Section 207.2.1 (7) and (8).

207.2.3 *Add paragraph to Section 2-11.5 to read:

Access panels shall not be installed in exit passageways.

207.3 Modifications to UFC 3-600-01, Chapter 3 – Water Supply for Fire Protection, can be found in Section 209.3.

207.4 Modifications to UFC 3-600-01, Chapter 4 – Fire Extinguishing Systems, can be found in Section 209.4.

207.5 Modifications to UFC 3-600-01, Chapter 5 – Fire Alarm Systems, can be found in Section 209.5.

207.6 Modifications to UFC 3-600-01, Chapter 6 – Special Occupancies and Hazards, can be found in Section 204.6.

208.0 CHAPTER 8 – INTERIOR FINISHES

Use UFC 3-600-01 in lieu of IBC Chapter 8 in conjunction and coordination with UFC 3-120-10, *Interior Design*.

208.1 UFC 3-600-01, Chapter 1 – Introduction is supplemented by Section 100.0 of this code.

208.2 Modifications to UFC 3-600-01, Chapter 2 – Building Construction can be found in Section 207.2 and 210.2.

208.3 Modifications to UFC 3-600-01, Chapter 3 – Water Supply for Fire Protection, can be found in Section 209.3.

208.4 Modifications to UFC 3-600-01, Chapter 4 – Fire Extinguishing Systems, can be found in Section 209.4.

208.5 Modifications to UFC 3-600-01, Chapter 5 – Fire Alarm Systems, can be found in Section 209.5.

208.6 Modifications to UFC 3-600-01, Chapter 6 – Special Occupancies and Hazards, can be found in Section 204.6.

208.7 *Use UFC 1-200-02 for interior finish low volatile organic compounds (VOC) requirements.

209.0 CHAPTER 9 – FIRE PROTECTION SYSTEMS

Use UFC 3-600-01 in lieu of IBC Chapter 9.

209.1 UFC 3-600-01, Chapter 1 – Introduction is supplemented by Section 100.0 of this code.

209.2 Modifications to UFC 3-600-01, Chapter 2 – Building Construction can be found in Section 207.2 and 210.2.

209.3 Modifications to UFC 3-600-01, Chapter 3 – Water Supply for Fire Protection, can be found below:

209.3.1 Add the following bullet to Section 3-5:

- All water based fire suppression systems contiguous to the Pentagon must be supplied by the Center Courtyard Utility Tunnel (C-CUT) fire protection loop.

209.3.2 Change the wording of Section 3-6.9 to read:

Provide a test header manifold on the building exterior that permits flow testing directly from the header using one length (50 ft) of attached hose. Coordinate the location of flow testing facilities with other disciplines to ensure flow from test header does not discharge onto other equipment or cause property damage.

209.3.3 Change the wording of Section 3.6-10 to read:

Provide a flow meter in addition to a test header. Comply with the requirements of NFPA 20 for the installation of the flow meter and test header.

209.3.4 Change Section 3-7.1.3 to read:

All dead-end mains must be approved by the Fire Marshal.

209.3.5 Change Section 3-7.1.6 to read:

Provide corrosion protection utilizing polyethylene wraps, bituminous coatings, use of CPVC or cathodic protection in accordance with UFC 3-570-02A, *Cathodic Protection*.

209.3.6 Change Section 3-7.2.2 to read:

Provide supervision of all post indicator valves (PIVs). Supervision shall be accomplished using a lock or tamper seal as well as electronic supervision that reports to the building fire alarm system.

209.4 Modifications to UFC 3-600-01, Chapter 4 – Fire Extinguishing Systems, can be found below:

209.4.1 The following exceptions shall apply to Section 4-1.2:

Exception #1: Hydraulic calculations and NICET Level III/FPE stamped plans are not required on system modifications affecting 20 or fewer sprinklers. Construction shop drawings meeting NFPA 13 requirements for working plans are required for system modifications affecting between 6 and 20 sprinklers. At a minimum, scaled schematic diagrams are required for system modifications affecting 5 sprinklers or fewer.

Exception #2: For new and modified pre-engineered fire suppression systems, designs by a factory certified system designer are acceptable.

209.4.2 Section 4-1.3 shall not apply to renovations within the Pentagon Reservation where annual water flow test data is available. A water flow test is required for all new free standing sprinklered structures. Water flow tests shall be witnessed by a representative of the Office of the Pentagon Fire Marshal (OPFM).

209.4.3 Change the exception to Section 4-2.2 to read:

Exception #1: Non-mission essential buildings of Type I or II construction less than 5,000 sq ft (465 sq m) gross floor area or Type III, Type IV, and Type V construction less than 3,500 sq ft (325 sq m) do not require automatic sprinkler protection unless specified by UFC 3-600-01, Chapter 6.

209.4.4 Change Section 4-2.2.1 to read:

4-2.2.1 – For Additions or Partial Renovations of Existing Buildings. Sprinkler protection must be provided if the entire gross floor area of the building (including any additions) exceeds 5,000 sq ft (465 sq m), or is an essential facility. The addition or portion of the building being renovated must include sprinkler protection and be designed to support sprinklers for the remainder of the building when it is renovated.

209.4.5 Add the following text to Section 4-2.3.1:

209.4.5.1 Add Section 4-2.3.1.1 – For any new construction within the Pentagon or existing sprinkler system modifications the minimum design density and area shall not be less than 0.15 gpm/sqft over 3000 sqft.

Exception: FBMCC

209.4.5.2 *Add Section 4-2.3.1.2 - For all new building construction, the minimum design density and area shall follow the Ordinary Hazard requirements in UFC 3-600-01. All references to Light Hazard in other sections of the UFC 3-600-01 should not apply.

Exception: FBMCC.

209.4.5.3 *Delete the text in Section 4-2.3.2. Piping and replace with the following:

209.4.5.4 4-2.3.2.1 – Galvanized piping is not permitted to be used in dry pipe, pre-action, or wet-pipe sprinkler systems.

209.4.5.5 4-2.3.2.2 – Use Schedule 40 steel piping for all sprinkler systems.

209.4.5.6 Add Section 4-2.3.2.3 – All piping in dry-pipe systems and piping exposed to humid or corrosive atmospheres (due to moisture or fumes from corrosive chemicals or both) shall be cleaned of oils and other contaminants, primed, and painted.

209.4.6 4-2.3.2.4 - Unions and bushings shall not be used in sprinkler systems on the system side of the control valve.

209.4.7 Change Section 4-2.3.3 Sprinkler Design Area Adjustment as follows:

209.4.7.1 4-2.3.3.1 – The design areas required in the paragraph entitled “Sprinkler Density and Hose Stream Requirements” must be increased by 30 percent for sloped ceilings that exceed a pitch of ten percent.

209.4.7.2 Add Section 4-2.3.3.2 – The design area reduction allowed for quick response sprinklers in NFPA 13 is not permitted.

209.4.8 Change title of Section 4-2.3.4 to: Automatic Sprinklers

209.4.9 Change Section 4-2.3.4 to read:

4-2.3.4.1 The use of quick response automatic sprinklers (QRAS) is limited to wet pipe systems.

209.4.10 Add Section 4-2.3.4.2 - Installations utilizing flexible sprinkler connections must meet the following requirements:

- Connections shall be listed by UL and the equivalent lengths used in the hydraulic calculations shall originate from UL testing.
- Connections utilizing O-ring style fittings will not be permitted.
- Connection assemblies shall be listed for seismic installations per the UFC.
- The use of a tool and/or special knowledge shall be required to detach mounting brackets from the ceiling construction.
- All flexible connections on a project shall be of a uniform length. Note, the specific length used is permitted to vary between projects.

209.4.11 Change the third paragraph of Section 4-2.3.5 to read:

The designer (a fire protection engineer) must provide hydraulic calculations demonstrating that the design will provide an adequate water supply for the fire extinguishing systems. Hydraulic calculations must be submitted no later than the first design submission and with each subsequent fire protection design submission. Calculations must be based on water flow test data fewer than 12 months old conducted in accordance with Section 209.4. Additionally, calculations shall include a minimum 10 psi (68.95 kPa) safety factor.

209.4.12 Replace Exceptions 1 and 2 to Section 4-2.3.6 with the following:

Exception: Electronic equipment and telecommunication spaces may utilize extended coverage sprinklers per NFPA 13.

209.4.13 Delete Section 4-2.3.6, Exception #2.

209.4.14 In Section 4-2.3.8, Add the following:

Exception: This requirement does not apply to existing Pentagon sprinkler systems.

209.4.15 *Delete Section 4-2.4.9.

209.4.16 Change Section 4-2.4.10 to read:

Along straight lengths of pipe, make changes in pipe sizes through tapered reducing pipe fittings.

209.4.17 Delete Section 4-2.4.11. Revert to NFPA 13 requirements.

209.4.18 *Delete Section 4-2.4.12

209.4.19 Change wording of Section 4-2.4.21 to read:

Provide electronic supervision for valves (with tamper proof covers) for all normally open sprinkler systems control valves, including isolation valves on backflow preventers installed inside buildings.

209.4.20 Delete Exception to Section 4-5.

209.4.21 Change Section 4-9 of the UFC 3-600-01 to read:

Portable extinguishers must be provided throughout all buildings in accordance with NFPA 10, *Standard for Portable Fire Extinguishers.* The following requirements shall apply:

1. Fire extinguishers shall be provided in all electrical rooms, substations and mechanical rooms.
2. Clean agent fire extinguishers shall be provided in all telecommunications and computer rooms.
3. Fire extinguishers shall be provided at the floor landing of each stairwell.
4. The travel distance to a fire extinguisher shall not exceed 50 ft (15.24 m).

Exception: Parking garages – fire extinguishers are required at every level within each stairwell.

5. ABC Dry Chemical extinguishers shall have minimum rating of 4A80BC and a minimum discharge time 20 seconds.
6. ABC Clean Agent extinguishers shall minimum rating of 2A10BC and a minimum discharge time of 13 seconds.
7. Fire extinguisher signage shall be provided at all fire extinguishers. Fire extinguisher signage shall be wall mounted, double sided and photoluminescent and shall project from the wall a minimum of 4 inches (101.6 mm).

Exception: Signage is not required in stairwells.

209.4.22 In Section 4-9.1 - Add the following:

Break-glass style fire extinguisher cabinets are not permitted.

Exception: Fire extinguisher cabinets are not required for fire extinguishers in stairwells, mechanical, electrical, telecommunications rooms, and similar utility rooms.

209.4.23 Change Section 4-10.2 to read:

Wet chemical systems must conform to NFPA 17A, *Standard for Wet Chemical Extinguishing Systems*, NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations* (for kitchen applications), and the manufacturer's listed installation manual.

209.4.24 Add Section 4-2.4.24 - Sprinkler piping shall not be installed in locations subject to significant and foreseeable mechanical or physical harm unless protected by approved barriers.

209.4.25 Add Section 4-2.4.25 - The use of roll grooved pipe with grooved fittings is prohibited in dry and pre-action sprinkler systems.

209.5 Modifications to UFC 3-600-01, Chapter 5 – Fire Alarm Systems, can be found below:

209.5.1 Change Section 5-1.1 to read:

Facility emergency notification systems including fire alarm (detection, notification, and signaling) and/or mass notification shall be addressable voice notification systems using a minimum of Class B pathways as defined by NFPA 72. Use of pathways with lesser performance capabilities shall require AHJ approval.

209.5.2 The following exceptions shall apply to Section 5-1.2:

Exception: For modified fire alarms systems of fewer than 5 audio/visual appliances, system working plans do not need to be reviewed or prepared by a NICET Level III/Fire Protection Engineer.

209.5.3 Amend Section 5-2.1.1 to include the following:

All DoD owned buildings within the Pentagon Reservation, excluding Site R, shall transmit alarms back to the Pentagon IEOC by a communication method permitted by NFPA 72.

209.5.4 Section 5-2.3 - Add the following bullet items:

- Fire alarm systems and all detection, notification and monitoring components shall be controllable and resettable from the Pentagon IEOC or other respective proprietary supervising stations.

209.5.5 Section 5-3.2.8 - Add the following bullet items:

- Visual appliances shall be installed in offices with more than one work station or tables capable of accommodating four or more chairs.
- Audible alarm notification appliances shall be provided and shall produce a distinctive sound that is not to be used for any purpose other than that of a fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 65 dBA; 15 dBA above the average ambient sound level; or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is higher.
- Where audible circuits must pass a Sensitive Compartmented Information Facility (SCIF) boundary, a means must be provided to prevent listening across the SCIF boundary.

209.5.6 Change Section 5-3.5 to read:

Provide secondary power per NFPA 72. Where the fire alarm system also serves as a Mass Notification System refer to UFC 4-021-01, Design and O&M: Mass Notification Systems, for additional requirements.

209.5.7 Change Section 5-3.6 to read:

For systems using voice evacuation or combined with the Mass Notification System, the default fire alarm voice evacuation message must state the following:

"May I have your attention please. May I have your attention please. A fire emergency has been reported in the building. Please leave the building be the nearest exit or exit stairway. Do not use the elevators." <provide a 2 second pause> "May I have your attention please…" (repeat the message).

Note: For single story buildings, delete "or exit stairway. Do not use the elevators" in the voice message.

209.5.8 Change Section 5-4.2.6 to read:

In new construction or major renovations, the control panel cabinets located in finished areas shall be recessed and be in contrast with the room or area's finishes.

209.5.9 Change Section 5-4.4 to read:

Provide secondary power per NFPA 72. Where the fire alarm system also serves as a Mass Notification System refer to UFC 4-021-01, Design and O&M: Mass Notification Systems, for additional requirements.

209.5.10 Delete Section 5-6.3

209.5.11 Change Section 5-6.4 to read:

When under-floor smoke detectors are provided, provide a framed CAD drawn floor plan showing the location of the devices in the room. Locate a single framed drawing inside the space that contains smoke detectors adjacent to the main entrance to that space.

209.5.12 Gas Detection. (Reserved)

209.6 Modifications to UFC 3-600-01, Chapter 6 – Special Occupancies and Hazards, can be found in Section 204.6.

210.0 CHAPTER 10 – MEANS OF EGRESS

Use UFC 3-600-01 in lieu of IBC Chapter 10.

210.1 UFC 3-600-01, Chapter 1 – Introduction is replaced by Section 100.0 of this code.

210.2 Modifications to UFC 3-600-01, Chapter 2 – Building Construction can be found in Section 207.2 and below.

210.2.1 Add Section 2-5.1.1 - Door leaves shall unlock in the direction of egress upon activation of a manual pull station.

210.2.2 Delete note to 2-5.2

210.2.3 *Add the following to Section 2-5.2.2

210.2.3.1 Photoluminescent signage shall be provided in accordance with NFPA 101 Life Safety Code and the requirements set forth in Sections 210.2.3.2-210.2.3.7.16.2.

210.2.3.2 The luminance of photoluminescent signage and striping shall meet the performance criteria of ASTM E 2072-10.

210.2.3.3 Photoluminescent signage shall be continuously illuminated while the space is occupied.

210.2.3.4 Photoluminescent Exit Signage

210.2.3.4.1 All exit signage provided shall be listed for a viewing distance of not less than 50 feet in accordance with UL 924.

210.2.3.4.2 UL 924 listed photoluminescent exit signs shall be installed at low level locations to supplement but not replace other code required exit signs.

210.2.3.5 As used herein, “striping” refers to 1-1/2 inch (38.1 mm) photoluminescent strips located directly above the baseboards unless otherwise indicated. The required width refers to the visible width of the photoluminescent strip after installation.

210.2.3.6 Striping shall be mounted within track frames unless otherwise indicated. The frame shall be of a color to match the wall/equipment/furniture upon which the track frame is installed.

210.2.3.6.1 The striping shall be mounted on permanent walls except where layout requires mounting on cubicle partition bases or furniture.

210.2.3.6.2 *When files or bookcases are located on these walls, the directional striping shall be mounted in a track frame applied to cabinet and cubicle partition bases.

210.2.3.7 *Photoluminescent lighting shall be installed in the following locations:

210.2.3.7.1 Corridors.

210.2.3.7.1.1 Directional/pathway striping shall be continuous from the most remote point to the nearest exit.

210.2.3.7.1.2 Striping shall be provided on both sides of the corridor when the width is 6-1/2 ft (2 m) or greater.

210.2.3.7.1.3 *Exit doors from corridors to exits or stairs shall be provided with the following:

- 1 inch (25.4 mm) tape or equivalent mounted on or adjacent to door frame (both jambs and head).
- Exit sign located on latch side of door, above the baseboard. For double doors, exit signs shall be installed adjacent to each door leaf on the egress side of the door, above the baseboard. When there is not sufficient space on the wall, exit sign(s) can be installed on each door leaf, as long as that door is normally in the closed position (e.g. does not have a hold-open device).
- Stairway identification sign.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.1.4 The following items located in corridors shall be provided with identification signs:

- Fire extinguisher cabinets (double sided, projecting at least 4 inches (101.6 mm))
- Fire hose cabinets
- Emergency telephones
- Fire alarm pull stations

210.2.3.7.2 *Exit Stairs.

210.2.3.7.2.1 Directional/pathway striping continuous from all points within the stair to the stair discharge shall be provided.

210.2.3.7.2.2 Stairway Identification Signs.

A sign shall be provided at each floor landing in exit enclosures designating the floor level, the terminus of the top and bottom of the exit enclosure and the identification of the stair. The signage shall also state the story of, and the direction to, the exit discharge and the availability of roof access from the enclosure for the fire department. The sign shall be located 5 feet (1.52 m) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. Floor level identification signs in tactile characters complying with ICC A117.1 shall be located at each floor level landing adjacent to the door leading from the enclosure into the corridor to identify the floor level.

210.2.3.7.2.2.1 *Stairway* identification signs shall comply with all of the following requirements:

1. The signs shall be a minimum size of 18 inches (457 mm) by 12 inches (305 mm).
2. The letters designating the identification of the stair enclosure shall be a minimum of 1-1/2 inch (38.1 mm) in height.
3. The number designating the floor level shall be a minimum of 5 inches (127 mm) in height and located in the center of the sign.
4. All other lettering and numbers shall be a minimum of 1 inch (25.4 mm) in height.
5. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

210.2.3.7.2.3 Handrails shall be identified by wall mounted striping installed above, and equal in length to, the railings.

210.2.3.7.2.4 *A solid and continuous stripe shall be applied to the horizontal leading edge of each step and shall extend for the full length of the step. Outlining stripes shall have a minimum horizontal width of 1 inch (25.4 mm) and a maximum width of 2 inches (50.8 mm). The leading edge of the stripe shall be placed at a maximum of 1/2 inches (12.5 mm) from the leading edge of the step. The stripe may overlap the leading edge of the step by not more than 1/2 inches (12.5 mm) down the vertical face of the step.

Exception: The minimum width of 1 inch (25.4 mm) shall not apply to outlining stripes listed in accordance with UL 1994.

210.2.3.7.2.5 Up or Down symbol markings shall be provided on all non-exit level landings to direct occupants to the exit/discharge level.

210.2.3.7.2.6 Markings shall be provided on all sprinkler control valves, fire hose standpipe valves, emergency telephones, fire extinguisher cabinets, etc.

210.2.3.7.2.7 Provide “Obstruction” markers on piping or other obstructions that project into landings.

210.2.3.7.2.8 Exit doors from stairs shall be provided with the following:

- 1 inch (25.4 mm) tape or equivalent mounted on or adjacent to door frame (both jambs and head).
- Stairway identification sign.
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.3 Elevator Banks and Escalators.

210.2.3.7.3.1 At elevator entrances, provide combination Elevator Identification and In Case of Fire Use Stairs sign.

210.2.3.7.3.2 At escalators, provide pathway directional striping, mounted above safety sweep strips.

210.2.3.7.4 *Individual Offices larger than 250 sq ft (23.2 sq m)

210.2.3.7.4.1 Pathway directional striping shall be provided for a minimum 6 ft from both sides of door.

210.2.3.7.4.2 On permanent walls, striping may be adhesively mounted (without track frames).

210.2.3.7.4.3 Doors from the space shall be provided with the following:

- 1 inch by 36 inch (25.4 mm by 914 mm) tape or equivalent mounted on or adjacent to door frame on latch side of door
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.5 *Office Suites.

210.2.3.7.5.1 Pathway directional striping shall be provided from the most remote location to the exit door.

210.2.3.7.5.1.1 On permanent walls striping may be adhesively mounted (without track frames).

210.2.3.7.5.2 Doors from the space shall be provided with the following:

- 1 inch (25.4 mm) tape or equivalent mounted on or adjacent to door frame (both jambs and head).
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.6 Conference Rooms.

210.2.3.7.6.1 Pathway directional striping is required for not less than half the length of the room for conference rooms from up to 300 sq ft (27.87 sq m).

210.2.3.7.6.2 Pathway directional striping shall extend the entire length of the room for conference rooms larger than 300 sq ft (27.87 sq m).

210.2.3.7.6.3 In amphitheater type conference rooms, edges of raised seating platforms shall be provided with luminous striping.

210.2.3.7.6.4 Doors from the space shall be provided with the following:

- 1 inch by 36 inch (25.4 mm by 914 mm) tape or equivalent mounted on or adjacent to door frame on latch side of door.
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.7 Exam/Treatment Rooms.

Doors from the space shall be provided with the following:

- 1 inch by 36 inch (25.4 mm by 914 mm) tape or equivalent mounted on or adjacent to door frame on latch side of door
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.8 Library.

210.2.3.7.8.1 Provide pathway directional striping on aisle and corridor walls leading to egress doorways.

210.2.3.7.8.2 Doors from the space shall be provided with the following:

- 1 inch by 36 inch (25.4 mm by 914 mm) tape or equivalent mounted on or adjacent to door frame on latch side of door.
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.9 Restrooms.

210.2.3.7.9.1 Pathway directional striping shall be provided extending from the most remote point to the public corridor.

210.2.3.7.9.2 *Doors from the space shall be provided with the following:

- 1 inch by 36 inch (25.4 mm by 914 mm) tape or equivalent mounted on or adjacent to door frame on latch side of door.
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.10 Cafeteria/Lunch Rooms.

210.2.3.7.10.1 Pathway directional striping shall be provided on walls leading to egress doors.

210.2.3.7.10.2 Obstruction striping shall be provided on columns and fixed equipment obscuring path to exits.

210.2.3.7.10.3 Doors from the space shall be provided with the following:

- 1 inch by 36 inch (25.4 mm by 914 mm) tape or equivalent mounted on or adjacent to door frame on latch side of door.
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.11 Storage Areas.

210.2.3.7.11.1 Directional striping shall be provided from remote area to the room exit.

210.2.3.7.11.2 Pathway directional striping shall be installed within track on bases of fixed storage systems.

210.2.3.7.11.3 Pathway directional striping shall be installed within track on walls where mobile, flexible storage layouts exist.

210.2.3.7.11.4 Power sleeves over light bulbs shall be provided on nearest light fixture on emergency lighting circuit to door.

210.2.3.7.11.5 Doors from the space shall be provided with the following:

- 1 inch by 36 inch (25.4 mm by 914 mm) tape or equivalent mounted on or adjacent to door frame on latch side of door
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.12 Mechanical/Electrical Rooms.

210.2.3.7.12.1 Obstruction striping shall be provided on equipment bases and on columns as well as on low hanging obstructions and floor mounted piping.

210.2.3.7.12.2 Power sleeves over light bulbs shall be provided to nearest light fixture on emergency lighting circuit to door.

210.2.3.7.12.3 Doors from the space shall be provided with the following:

- 1 inch (25.4 mm) tape or equivalent mounted on or adjacent to door frame (both jambs and head).
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.13 Workshops & Large Mechanical/Electrical Rooms.

210.2.3.7.13.1 Floor mounted directional arrow disks shall be provided every 24 inches (610 mm) along aisles and pathways from the most remote location to exit doorways.

210.2.3.7.13.2 Perimeter walls with no fixed equipment shall be provided with pathway directional striping.

210.2.3.7.13.3 Obstruction striping shall be provided on all fixed equipment bases, columns, etc.

210.2.3.7.13.4 *Doors from the space shall be provided with the following:

- 1 inch (25.4 mm) tape or equivalent mounted on or adjacent to door frame (both jambs and head).
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.14 Loading Docks / Shipping and Receiving Areas.

210.2.3.7.14.1 Pathway directional striping shall be provided on walls.

210.2.3.7.14.2 Pathway directional striping shall be provided on rolling door slat to provide continuous pathway marking.

210.2.3.7.14.3 Floor mounted directional arrow disks shall be provided every 24 inches (610 mm) along aisles and pathways from the most remote location to exit doorways.

210.2.3.7.14.4 On exterior exit stairs under loading docks:

210.2.3.7.14.4.1 Stair tread marking shall be provided.

210.2.3.7.14.4.2 Top stair handrail shall be painted with luminous paint or “rail safe” luminous wrapping shall be provided.

210.2.3.7.14.5 Doors from the space shall be provided with the following:

- 1 inch (25.4 mm) tape or equivalent mounted on or adjacent to door frame (both jambs and head).
- Exit sign located on latch side of door, above the baseboard.
- Door knob ring or PUSH BAR TO OPEN sign.

210.2.3.7.15 Central Courtyard Utility Tunnels.

210.2.3.7.15.1 Continuous pathway directional striping shall be provided continuously leading to exit ways.

210.2.3.7.15.2 Continuous obstruction striping adhered to floor mounted piping shall be provided.

210.2.3.7.16 Heating and Refrigeration Plant Utility Tunnels.

210.2.3.7.16.1 Pathway directional striping shall be provided along walkways and leading continuously to exits.

210.2.3.7.16.2 Obstruction striping shall be provided on vertical rack supports.

210.2.4 Change title of Section 2-5.3 to “Occupant Load”, and replace section with the following:

210.2.4.1 Add Section 2-5.3.1 – Occupant Load Factors

Utilize the occupant load factors presented in Table 2-5.3, below, in addition to the occupant load factors presented in NFPA 101, “*The Life Safety Code*”.

Table 2-5.3 – Occupant Load Factor

Use	Sq ft (sq m) per person
Mechanical Rooms	300 (27.9) gross
Locker Rooms	50 (4.7) gross
Parking Garages	200 (18.6) gross

210.2.4.2 Add Section 2-5.3.2 - Maximum Occupant Load

The maximum occupant load for any space or facility shall not exceed one person per 7 square feet ($0.65m^2$) of net floor space or the maximum capacity of the required egress components, whichever is less.

210.2.5 The common path of travel shall be measured starting at a point 12 inches (305 mm) from the most remote point in the room (exclusive of furniture) to 12 inches (305 mm) beyond the point where an occupant has the choice of two separate and distinct egress paths to two different exits.

210.2.6 Doors swinging into corridors shall be recessed such that they swing a maximum of 7 inches (178 mm) into the corridor.

210.2.7 *Security Locks. Where security locks are used to meet DoD security standards, the lock-sets shall be required to release the latch and to put the door leaf into motion with a single action. The lock-sets must not require special knowledge to operate. The lock-sets must not require tight hand/finger gripping to operate.

210.3 Modifications to UFC 3-600-01, Chapter 3 – Water Supply for Fire Protection, can be found in Section 209.3.

210.4 Modifications to UFC 3-600-01, Chapter 4 – Fire Extinguishing Systems, can be found in Section 209.4.

210.5 Modifications to UFC 3-600-01, Chapter 5 – Fire Alarm Systems, can be found in Section 209.5.

210.6 Modifications to UFC 3-600-01, Chapter 6 – Special Occupancies and Hazards, can be found in Section 204.6.

211.0 CHAPTER 11 – ACCESSIBILITY

Use the Architectural Barriers Act (ABA) *Accessibility Standard for Department of Defense Facilities* as adopted by the Deputy Secretary of Defense memorandum dated October 31, 2008, in lieu of IBC Chapter 11 (see Appendix D).

Where the ABA references the IBC 2000 or 2003 editions and supplements, the latest version of the IBC is acceptable when it meets or exceeds the ABA requirements.

212.0 CHAPTER 12 – INTERIOR ENVIRONMENT

Use IBC Chapter 12, except as modified below:

212.1 Delete Section 1204.1, including the exception, and replace with the following:

212.2 1204.1 *Equipment and Systems.* Use the applicable Unified Facilities Criteria for temperature control criteria.

213.0 CHAPTER 13 – SUSTAINABILITY AND ENERGY EFFICIENCY

*Use UFC 1-200-02 in lieu of IBC Chapter 13.

213.1 UFC 1-200-02, Chapter 1 - Introduction is supplemented by Section 100.0 of this code.

213.2 Integrated Design - See UFC 1-200-02 Chapter 2

213.3 Integrated Assessment - See UFC 1-200-02 Chapter 3

213.4 Existing Building Requirements - See UFC 1-200-02 Chapter 4

213.5 Federal Policies - See UFC 1-200-02 Chapter 5

213.6 Guiding Principles - See UFC 1-200-02 Chapter 6

213.7 WHS Code Plus Requirements of topics not discussed in UFC 1-200-02

213.7.1 The Compliance Checklist for Implementing Sustainability Requirements at WHS Facilities shall be provided as part of the 100% design submission.

213.8 Higher Mandates

213.8.1 *Use UFC 3-210-10, Low Impact Development and UFC 2-100-01, Installation Master Planning and Presidential Memorandum on Environmentally and Economically Beneficial Landscape Practices on Federal Landscaped Grounds to supplement these requirements.

213.8.2 Energy and water meters shall be installed in accordance with Energy Independence Security Act.

214.0 **CHAPTER 14 – EXTERIOR WALLS**

Use IBC Chapter 14.

215.0 **CHAPTER 15 – ROOF ASSEMBLIES AND ROOFTOP STRUCTURES**

Use IBC Chapter 15 and UFC 3-101-01, *Architecture* and UFC 3-110-03, *Roofing*.

215.1 A life cycle cost analysis shall be conducted to determine the most cost effective, innovative strategies to minimize consumption of energy, water, and materials, as required by Executive Order (E.O.) 13514.

215.2 Use UFC 3-210-10, *Low Impact Development* to meet storm water management requirements.

216.0 **CHAPTER 16 – STRUCTURAL DESIGN**

Use IBC Chapter 16 as modified by UFC 3-301-01. Use IBC Chapter 16 and UFC 3-310-04 for seismic design.

217.0 **CHAPTER 17 – SPECIAL INSPECTIONS AND TESTS**

Use Chapter 17 as modified by UFC 3-301-01 and UFC 3-600-01. The Structural Tests and Special Instructions described in IBC Chapter 17 provide a variety of procedures and criteria for testing materials and assemblies. Some DoD requirements are more stringent and these take precedence as identified in these UFCs. Replace IBC Paragraph 1704.2 as follows:

217.1 The contractor must employ one or more *approved agencies* to perform inspections during construction on the types of work listed under IBC Section 1705 Required Verification and Inspection. These inspections are in addition to the inspections defined in Section 110. The inspecting agency must provide reports of the special instructions directly to the government.

218.0 **CHAPTER 18 – SOILS AND FOUNDATIONS**

Use IBC Chapter 18, as modified by UFC 3-301-01, and UFC 3-220-01.

218.1 Supplement to IBC 1804.3: Grading and associated storm water runoff shall be arranged so as to not adversely affect surrounding sites.

218.2 Supplement to UBC 1808.7.4: Finished floor elevations shall be a minimum of 8 inches (200 mm) above the finished grade at the perimeter of the building.

219.0 **CHAPTER 19 – CONCRETE**

Use IBC Chapter 19 as modified by UFC 3-301-01 and UFC 1-200-02.

220.0 **CHAPTER 20 – ALUMINUM**

Use IBC Chapter 20.

221.0 **CHAPTER 21 – MASONRY**

Use IBC Chapter 21 as modified by UFC 3-301-01.

222.0 **CHAPTER 22 – STEEL**

Use IBC Chapter 22 as modified by UFC 3-301-01.

223.0 **CHAPTER 23 – WOOD**

Use IBC Chapter 23.

224.0 **CHAPTER 24 – GLASS AND GLAZING**

Use IBC Chapter 24.

224.1 New windows shall be US EPA ENERGY STAR Most Efficient designated products.

225.0 **CHAPTER 25 – GYPSUM BOARD AND PLASTER**

Use IBC Chapter 25.

226.0 **CHAPTER 26 – PLASTIC**

Use IBC Chapter 26 and UFC 3-600-01

227.0 **CHAPTER 27 – ELECTRICAL**

*Use IBC Chapter 27, as modified by the following:

227.1 UFC 3-501-01 for general electrical requirement criteria.

227.2 UFC 3-520-01 for interior electrical systems criteria.

227.2.1 Revise Section 3-6.3 to include the following:

227.2.1.1 Feeders. Feeder conductors shall be sized for a maximum voltage drop of 2% at design load.

227.2.1.2 Branch Circuits. Branch circuit conductors shall be sized for a maximum voltage drop of 3% at design load. The design load shall be a minimum of 9 amperes.

227.2.1.3 Feeders & Branch circuits: Feeder and Branch circuit conductors shall be sized for a maximum voltage drop of 5% at design load. The design load shall be a minimum of 16 amperes.

227.2.2 Amend UFC 3-520-01 as follows:

227.2.2.1 Polyvinyl Chloride (PVC) is not approved for electrical conduits for all interior electrical distribution on the Pentagon Reservation and FBMCC.

Exception: PVC conduit may be used in concrete slabs or duct banks.

227.2.3 Revise Section 3-2 to include the following

227.2.3.1 Enclosures for panelboards and switchboards shall not be used as junction boxes, auxiliary gutters or raceways for conductors feeding through or tapping.

227.2.4 Revise section 3-2.2 to include the following

227.2.4.1 Panelboards are to be Main Circuit Breaker (MCB) type.

227.2.4.1.1 Exception: Unless otherwise restricted by code, Main Lug Only (MLO) type panelboards are acceptable when all of the conditions set forth in 226.2.4.1.1.1 - 226.2.4.1.1.3 are met

227.2.4.1.1.1 Dedicated overcurrent protection device and disconnect device are provided for the panelboard.

227.2.4.1.1.2 The disconnect device for the panelboard is within sight of the panelboard.

227.2.4.1.1.3 The circuit distance between the panelboard and its means of disconnect is less than 25 ft (7620 mm).

227.3 UFC 3-530-01 for interior and exterior lighting and controls criteria.

227.3.1 Amend UFC 3-530-01 as follows:

227.3.1.1 *For the Pentagon Reservation, footcandle levels shall be per Table 227.3.1.1.

Table 227.3.1.1 – Light Level Requirements

Space type	Target (FC)
Corridors	15
Private office	30 (ambient)
	50 (task)
Open office	30 (ambient)
	50 (task)
Waiting areas	10 (ambient)
	50 (task)
Conference rooms	30
Lounges	10
Office support	30 (ambient)
	50 (task)
Storage rooms	10
Mechanical/Electrical	30
Electrical closets	30
Restrooms	15
Kitchens	50
Cafeteria	15
	50
Enlisted dining rooms	15
	50
Officer dining rooms	15
	50
Indoor Pool	30
Indoor basketball	30
Locker Rooms	10
Retail	40
Command and Operation Center	46
TC Closets	50
Communications and Equipment Closets	50
TC – Wedge Rooms (Data Center)	50
Consolidated Radio Rooms (CRR)	50

227.3.1.1.1 All target footcandle levels stated herein are the Target Horizontal Illuminance average, unless stated otherwise, and shall be designed with a tolerance of +/- 10% footcandles in accordance with UFC.

227.3.1.1.2 When space types are not identified in Table 227.3.1.1 the Illuminating Engineering Society (IES) Standard shall determine the target footcandle levels.

227.3.1.2 For all other buildings, footcandle levels shall follow the UFC.

227.3.2 Revise Section 5-6.3 to include the following:

227.3.2.1 Illumination for Electrical Rooms, Mechanical Rooms, Electrical Switchgear Rooms and Electrical Vaults shall be provided in accordance with the requirements set for forth for illumination of means of egress in NFPA 101, Sections 7.8 and 7.9.

227.4 UFC 3-550-01 for exterior power distribution systems criteria.

227.5 UFC 3-560-01 for electrical safety and electrical O&M criteria.

227.5.1 *Provide arc flash warning labels on electrical equipment likely to require examination, adjustment, servicing, or maintenance while energized. Some typical types of equipment include pad-mounted transformers, switchgear, switchboards, panelboards, disconnect switches, industrial control panels, meter socket enclosures, and motor control centers that are in other than dwelling occupancies. Provide labels in accordance with the detailed arc flash warning labels specified b NFPA 70E-2012, Article 130.5(C) in lieu of general warning labels as provided by UFC 3-560-01, Section 1-10.

227.6 UFC 3-580-01 for interior telecommunications criteria.

227.7 UFC 4-021-01 for mass notification systems criteria.

227.8 Modifications to NFPA 70 – The National Electric Code (NEC):

227.8.1 Amend Section 410.36 to include – Means of Support - Support for Fixtures in or on Grid-Type Suspended Ceilings: Use grid for support.

227.8.1.1 Use steel support wire, supplied by the ceiling subcontractor, on at least all 4 corners to support the light fixtures from the building structure. Exceptions to this are on a case by case basis when there is a conflict with the other trades. In hard ceiling areas, the fixture is secured to the framing members with screws.

227.8.1.2 Fixtures of Sizes Less Than Ceiling Grid: Arrange as indicated on reflected ceiling plans or center in acoustical panel, and support fixtures independently with at least two 3/4 inch (19.1 mm) metal channels spanning and secured to ceiling tees.

227.8.2 Amend Section 760.30 to include – Junction box covers for fire alarm system conduit shall be colored red.

227.9 Building Automation System (BAS)

227.9.1 All Building Automation System (BAS) work shall comply with UFC 3-470-01.

227.9.2 Electrical and lighting control automation equipment with the capability of being remotely monitored or controlled shall be connected to the BAS

227.9.3 Any new BAS connection or component to an existing system must be compatible with the system controller.

227.9.4 Device controllers through the field level controllers to the BAS supervisory user interface shall be functional at the time of commissioning of the controlled equipment.

227.9.5 New control systems shall communicate with the main BAS supervisory user interface in an open protocol that is native to both, supervisory and supervised systems.

227.9.6 New field controller devices utilized to control the equipment described in Sections 228.3.11.1-228.3.11.5 shall be required to have the native capability of communicating with their respective supervisory systems over BACNet/IP, Modbus/TCP/IP, OPC, RsLinx over the Facility Network or BACNet/MS-TP, N2, Modbus/RTU over the related serial communication bus available in the vicinity of the equipment.

227.9.6.1 The building management office responsible may approve the utilization of gateways as a means of protocol translation when the field equipment controller supplied as an integral part of the equipment is not equipped with the native capability of communicating on any of the above mentioned protocols.

227.9.7 For connection to existing systems, the building management office responsible will identify the building point of connection to the system through a request for information from the Contractor.

227.9.8 The BAS shall be analyzed for network connectivity and control capacity in order to provide all necessary infrastructure and programming to connect systems and equipment in a manner consistent with established standards.

228.0 CHAPTER 28 – MECHANICAL SYSTEMS

Use IBC Chapter 28 as modified by, UFC 3-401-01 and UFC 3-410-01.

228.1 Use UFC 3-410-01, Chapter 1

228.2 Use UFC 3-410-01, Chapter 2

228.3 Use UFC 3-410-01, Chapter 3 – General Design Requirements, as modified below:

228.3.1 Mechanical appliances and equipment shall be US EPA ENERGY STAR, US DOE FEMP-designated products or shall have an equal or greater efficiency based on life cycle cost.

228.3.2 Use UFC 3-400-02 to access climatological data for use in designing mechanical systems.

228.3.3 Terminal Units

228.3.3.1 Terminal units shall only be permitted to serve offices located within the suite the terminal unit is installed, unless otherwise permitted below:

228.3.3.1.1 Terminal Units located in public corridors may serve offices within the suite that the terminal unit's thermostat is located.

228.3.3.2 *Terminal units may serve more than one office within a suite as long as their thermal loads are similar.

228.3.3.3 *Rooms that are programmed for a variable number of occupants shall have their own terminal unit. This unit shall be activated by an occupancy sensor and control its supply of vent air through the use of a CO2 sensor, but shall be set to the default minimum as required by this code.

228.3.3.4 *New thermal load calculations, re-balancing and sequence of operation modifications shall be performed in the event of space repurposing that entails significant heat load change.

228.3.4 Protection from damage

228.3.4.1 Equipment and appliances shall not be installed in a location where subject to mechanical damage unless protected by approved barriers.

228.3.4.2 Barriers shall not obstruct maintainable areas of equipment and appliances.

228.3.5 Valves shall be readily accessible or accessible by a means that first requires the removal or movement of a panel, door or similar obstruction and/or reached from the ground, a ladder, or approved platform.

228.3.6 Press fit type mechanical connections shall be permitted for use with copper pipe and tube of sizes 2 inches (50.8 mm) and smaller.

228.3.7 Joints on steel and stainless steel pipe greater than 2 inches (50.8 mm) shall be welded.

228.3.8 Fittings for steam condensate lines shall be of schedule 80 steel.

228.3.9 Elbows for steam condensate lines shall be of a long radius type.

228.3.10 Building Automation System (BAS)

228.3.10.1 All Building Automation System (BAS) work shall comply with UFC 3-470-01.

228.3.10.2 *Mechanical equipment with the capability of being remotely monitored or controlled shall be connected to the BAS

228.3.10.3 Any new BAS connection or component to an existing system must be compatible with the system controller.

228.3.10.4 Device controllers through the field level controllers to the BAS supervisory user interface shall be functional at the time of commissioning of the controlled equipment.

228.3.10.5 New control systems shall communicate with the main BAS supervisory user interface in an open protocol that is native to both, supervisory and supervised systems.

228.3.10.6 New field controller devices utilized to control the equipment described in Sections 228.3.11.1-228.3.11.5 shall be required to have the native capability of communicating with their respective supervisory systems over BACNet/IP, Modbus/TCP/IP, OPC, RsLinx over the Facility Network or BACNet/MS-TP, N2, Modbus/RTU over the related serial communication bus available in the vicinity of the equipment.

228.3.10.6.1 The building management office responsible may approve the utilization of gateways as a means of protocol translation when the field equipment controller supplied as an integral part of the equipment is not equipped with the native capability of communicating on any of the above mentioned protocols.

228.3.10.7 For connection to existing systems, the building management office responsible will identify the building point of connection to the system through a request for information from the Contractor.

228.3.10.8 The BAS shall be analyzed for network connectivity and control capacity in order to provide all necessary infrastructure and programming to connect systems and equipment in a manner consistent with established standards.

228.3.11 All equipment and appliances that need to reject heat (Ice Machine, Walk-in Cooler, etc.) shall reject that heat into the HVAC Chilled Water Loop.

228.4 Use UFC 3-410-01, Chapter 4, which references the International Mechanical Code, as modified below:

228.4.1 IMC, Chapter 1 – Scope and Administration is replaced by UFC 3-410-01 Chapter 1 and Section 100.0 of this code.

228.4.1.1 Revise UFC 3-410-01, Section 4-1 as follows:

"Mechanical appliances, equipment, and systems shall be constructed and installed in accordance with the International Mechanical Code (IMC), the International Fuel Gas Code (IFGC), NFPA 54, and NFPA 58."

228.4.1.2 Where IFGC requirements are more stringent than the NFPA 54 and NFPA 58, those IFGC requirements shall apply unless otherwise noted herein.

228.4.2 Use IMC, Chapter 2 – Definitions and Section 101.7 of this code. Delete definitions in UFC 3-410-01, Section 4-2.2.

228.4.3 Modifications to UFC 3-410-01 – IMC Chapter 3 – General Regulations are as follows:

228.4.3.1 Abandoned, unused or out of service mechanical systems, equipment, distribution material and supporting infrastructure shall be demolished to the nearest source and completely removed.

228.4.3.2 ABS, PVC, CPVC, PP, PE, PB, PEX-AL-PEX, PEX-AL-HDPE, PE-AL-PE, PE-RT, and PEX pipe, tube or hose is not permitted for use within a structure. Galvanized pipe is not permitted for use on WHS owned property.

228.4.3.2.1 PVC hoses such as "BEVLEX" may be used downstream of the backflow preventer in soda fountain applications. Developed lengths greater than 5.0 feet (1.5 m) shall be run end to end through EMT.

228.4.3.2.2 Pipe, tube, and hose consisting of the above materials shall be permitted when installed by a manufacturer as part of a listed and labeled assembly.

228.4.3.3 Labeling of distribution pipe

228.4.3.3.1 Labeling of distribution pipe shall follow ANSI A13.1.

228.4.3.3.2 Identification markings intervals on the pipe shall not exceed 25 feet (7620 mm).

228.4.3.3.3 Pipe labeling shall consist of one rectangular label noting pipe content, and a ring of flow arrows on each side of the description noting direction of flow, both conforming to ANSI A13.1.

228.4.3.3.4 Flow arrows shall wrap over the description label ends and also wrap around itself by at least 2 inches (50.8 mm) to ensure a good bond.

228.4.3.4 At least one identification label shall be provided on each pipe in each room, space or story. The color coding of distribution systems shall follow Table 228.4.3.3.5. Labeling for distribution pipe not included in Table 228.4.3.3.5 shall be approved by the Building Code Official.

TABLE 228.4.3.4		
CHILLED WATER SUPPLY	Green	White
CHILLED WATER RETURN	Green	White
BLENDED CHILLED WATER SUPPLY	Green	White
BLENDED CHILLED WATER RETURN	Green	White
MC CHILLED WATER SUPPLY	Green	Red
MC CHILLED WATER RETURN	Green	Red
CONDERSER WATER	Lt. Green	White
CONDENSATE	Gray	White
HEATING HOT WATER SUPPLY	Lt. Orange	Black
HEATING HOT WATER RETURN	Lt. Orange	Black
BLENDED HOT WATER SUPPLY	Lt. Orange	Black
BLENDED HOT WATER RETURN	Lt. Orange	Black
HIGH PRESSURE STEAM	Orange	Black
MEDIUM PRESSURE STEAM	Orange	Black
LOW PRESSURE STEAM	Orange	Black
STEAM CONDENSATE	Orange	Black
FUEL OIL	Brown	White

228.4.3.5 Delete last sentence of IMC, Section 307.2.1 and replace with the following: Condensate shall be plumbed with a trap and air gap to the storm system.

228.4.4 Modifications to UFC 3-410-01 – IMC Chapter 4 – Ventilation

228.4.5 Modifications to UFC 3-410-01 - IMC Chapter 5 – Exhaust Systems

228.4.6 Modifications to UFC 3-410-01 - IMC Chapter 6 – Duct Systems

228.4.6.1 *Delete IMC, Section 602.2.1.2.

228.4.7 Modifications to UFC 3-410-01 - IMC Chapter 7 – Combustion Air

228.4.8 Modifications to UFC 3-410-01 - IMC Chapter 8 – Chimneys and Vents

228.4.9 Modifications to UFC 3-410-01 - IMC Chapter 9 – Specific Appliances, Fireplaces, and Solid Fuel-Burning Equipment

228.4.10 Modifications to UFC 3-410-01 - IMC Chapter 10 – Boilers, Water Heaters and Pressure Vessels

228.4.11 Modifications to UFC 3-410-01 - IMC Chapter 11 – Refrigeration

228.4.12 Modifications to UFC 3-410-01 - IMC Chapter 12 – Hydronic Piping

228.4.13 Modifications to UFC 3-410-01 - IMC Chapter 13 – Fuel Oil Piping and Storage

228.4.14 Modifications to UFC 3-410-01 - IMC Chapter 14 – Solar Systems

228.4.15 Modifications to the IFGC are as follows:

228.4.15.1 Leak Detection

228.4.15.1.1 A gas leak detection system shall be provided for the entire length of natural gas piping through a facility. This leak detection system shall be integrated with the Building Automation System.

228.4.15.2 Replace IFGC Section 401.5 as follows:

228.4.15.2.1 Gas pipe shall be painted yellow along its entire run.

228.4.15.2.2 Gas pipe shall be labeled in accordance with ANSI A13.1 at intervals not exceeding 5 feet (1524 mm).

228.4.15.2.2.1 Pipe label shall consist of 1 rectangular label noting pipe content, and a ring of flow arrows on each side of the description noting direction of flow, both conforming to ANSI A13.1.

228.4.15.2.2.2 Flow arrows shall wrap over the description label ends and also wrap around itself by at least 2 inches (50.8 mm) to ensure a good bond.

229.0 CHAPTER 29 – PLUMBING SYSTEMS

Use IBC Chapter 29 and the International Plumbing Code (IPC), as modified by UFC 3-420-01. The information in UFC 3-420-01, Appendix A shall apply with the following changes:

229.1 IPC, Chapter 1 – Scope and Administration is replaced by UFC 3-420-01, Chapter 1 and Section 100.0 of this code.

229.1.1 Add to UFC 3-420-01, Section 1-11.2 Equipment Schedules

"(11) Fixture
(a) Description
(b) Manufacturer
(c) Model #
(d) Plumbing Connection Sizes (Trap, Vent, Drainage, Hot Water, Cold Water, Other)
(e) Remarks
(f) Code Compliant (List either DOE FEMP or IMC Section 604.4)"

229.1.2 Building Automation System (BAS)

229.1.2.1 All Building Automation System (BAS) work shall comply with UFC 3-470-01.

229.1.2.2 *Plumbing equipment with the capability of being remotely monitored or controlled shall be connected to the BAS

229.1.2.3 Any new BAS connection or component to an existing system must be compatible with the system controller.

229.1.2.4 Device controllers through the field level controllers to the BAS supervisory user interface shall be functional at the time of commissioning of the controlled equipment.

229.1.2.5 New control systems shall communicate with the main BAS supervisory user interface in an open protocol that is native to both, supervisory and supervised systems.

229.1.2.6 New field controller devices utilized to control the equipment described in Sections 229.1.2.1-229.1.2.5 shall be required to have the native capability of communicating with their respective supervisory systems over BACNet/IP, Modbus/TCP/IP, OPC, RsLinx over the Facility Network or BACNet/MS-TP, N2, Modbus/RTU over the related serial communication bus available in the vicinity of the equipment.

229.1.2.6.1 The building management office responsible may approve the utilization of gateways as a means of protocol translation when the field equipment controller supplied as an integral part of the equipment is not equipped with the native capability of communicating on any of the above mentioned protocols.

229.1.2.7 For connection to existing systems, the building management office responsible will identify the building point of connection to the system through a request for information from the Contractor.

229.1.2.8 The BAS shall be analyzed for network connectivity and control capacity in order to provide all necessary infrastructure and programming to connect systems and equipment in a manner consistent with established standards.

229.1.3 All equipment and appliances that need to reject heat (Ice Machine, Walk-in Cooler, etc.) shall reject that heat into the HVAC Chilled Water Loop.

229.2 Use IPC, Chapter 2 – Definitions and Section 101.7 of this code. Delete definitions in UFC 3-420-01, Appendix A, "Definitions Supplements".

229.3 Modifications to UFC 3-420-01, Appendix A- IPC Chapter 3 – General Regulations, can be found in Section 229.3.

229.3.1 *Delete Item F and replace with: “Delete IPC Section 305.4 and replace with: Section 305.4 Freezing. Water, soil and waste pipes shall not be installed outside of a building, in attics or crawl spaces, concealed in outside walls, or in any other place subjected to freezing temperatures. Exterior water supply system piping shall be installed not less than 6 inches (152 mm) below the frost line and not less than 12 inches (305 mm) below grade.

229.3.1.1 Pipe runs to equipment required to be housed outdoors that in no way can be run indoors shall be insulated and heat traced for protection.

229.3.1.2 Devices such as cooling towers, tanks etc. shall be insulated and heat traced for protection against damage.

229.3.1.3 The proper thickness or conductivity factor for this insulation, and the watts/linear foot (watts/linear meter) for heat tracing are to be determined by the design engineer.

229.3.2 In Item H replace the word should with shall.

229.3.3 Add Item J, “All abandoned, unused or out of service plumbing systems, equipment, distribution material and supporting infrastructure shall be demolished to the nearest source and completely removed.”

229.3.4 Add Item K, “ABS, PVC, CPVC, PP, PE, PB, PEX-AL-PEX, PEX-AL-HDPE, PE-AL-PE, PE-RT and PEX pipe, tube or hose is not permitted for use within a structure. Galvanized pipe is not permitted for use on WHS owned property.

229.3.4.1 PVC hoses such as "BEVLEX" may be used downstream of the backflow preventer in soda fountain applications. Developed lengths greater than 5.0 feet (1.5 m) shall be run end to end through EMT.

229.3.4.2 Pipe, tube, and hose consisting of the above materials shall be permitted when installed by a manufacturer as part of a listed and labeled assembly.”

229.3.5 Add Item L, “Labeling of distribution pipe

229.3.5.1 Labeling of distribution pipe shall follow ANSI A13.1.

229.3.5.2 Identification markings intervals on the pipe shall not exceed 25 feet (7620 mm).

229.3.5.3 Pipe labeling shall consist of one rectangular label noting pipe content, and a ring of flow arrows on each side of the description noting direction of flow, both conforming to ANSI A13.1.

229.3.5.4 Flow arrows shall wrap over the description label ends and also wrap around itself by at least 2 inches (50.8 mm) to ensure a good bond.

229.3.5.5 At least one identification label shall be provided on each pipe in each room, space or story.

229.3.5.6 The color coding of distribution systems on the Pentagon Reservation shall follow Table 229.3.3.6. Labeling for distribution pipe not included in Table 229.3.3.6 shall be approved by the Building Code Official.

TABLE 229.3.3.6

Wording	Label Color	Letter Color
DOMESTIC COLD WATER	Blue	White
DOMESTIC HOT WATER	Blue	White
DOMESTIC HOT WATER RECIRC.	Blue	White
CHILLED DRINKING WATER	Lt. Blue	White
IRRIGATION WATER	Purple	White
SANITARY SEWER	Black	White
GREASE WASTE	Black	White
STORM SEWER	Gray	White
NATURAL GAS	Yellow	Black

229.3.6 Add Item M, “Equipment and appliances within the Pentagon Reservation shall be identified in accordance with the Pentagon Equipment Labeling Standard.”

229.3.7 Add Item N, “Add IPC Section 317 Installation

229.3.7.1 General. Equipment and appliances shall be installed as required by the terms of their approval, in accordance with the conditions of the listing, the manufacturer's recommended installation instructions and this code. Manufacturer's installation instructions shall be available on the job site at the time of inspection.

229.3.7.2 Conflicts. Where, in any specific case, different sections of any of the referenced standards specify different materials, methods of construction or other requirements, the most restrictive requirement will govern, unless otherwise approved by the BCO.”

229.3.8 Add Item O, “Protection from damage

229.3.8.1 Equipment and appliances shall not be installed in a location where subject to mechanical damage unless protected by approved barriers.

229.3.8.2 Barriers shall not obstruct maintainable areas of equipment and appliances.”

229.3.9 Add Item P, “Delete last sentence of IPC, Section 314.2.1 and replace with the following: Condensate shall be plumbed with a trap and air gap to the storm system.”

229.3.10 Add Item Q, “Valves shall be readily accessible or accessible by a means that first requires the removal or movement of a panel, door or similar obstruction and/or reached from the ground, a ladder, or approved platform.”

229.3.11 Add Item R, “Press fit type mechanical connections shall be permitted for use with copper pipe and tube of sizes 2 inches (50.8 mm) and smaller.”

229.3.12 Add Item S, “Joints on steel and stainless steel pipe greater than 2 inches shall be welded. “

229.4 Modifications to UFC 3-420-01, Appendix A – IPC Chapter 4 – Fixtures Faucets, and Fixture Fittings, can be found in Section 229.4.

229.4.1 Delete Item B and replace with: “B. Section 401.3 Water conservation. Water conservation fixtures conforming to IPC Section 604.4 will be used except where either:

1. DOE - FEMP water conservation requirements are more restrictive, or

2. The sewer system will not adequately dispose of the waste material on the reduced amount of water.”

229.4.2 Delete Item D and replace with: “Add additional notes beneath IPC Table 403.1 as follows:

h. For “male only” toilet facilities, urinals may be substituted for no more than one-third of the water closets required, one for one.
i. For “Assembly” occupancies, provide drinking fountains at 1 per 400 persons.
j. For “Business”, “Educational”, “Factory and Industrial” occupancies, provide fixtures (both male and female) at the following rates:

(1) water closets (1 per 20 persons (p), up to 100 p; then 1 per 40 p).
(2) lavatories (1 per 20 p, up to 100 p; then 1 per 45p).
(3) showers (1 per 15 p – when required, for population served).
(4) drinking fountains (1 per 75 p).
(5) service sinks (1 per floor).

k. For “High hazard” occupancies involving exposure to skin contamination with poisonous, infectious, or irritating materials, provide fixtures per note j. “Business” above, except provide lavatories at 1 per 5 persons.
l. For Assembly - Occupancy A-4, add a new line for Athlete Locker Rooms. Provide fixtures per note j. "Business" above.
m. Lavatories in toilet rooms for food service employees will be provided with automatic valves.

229.4.3 Delete Item E in its entirety.

229.4.4 Delete Item F and replace with: "Delete Section 404.1 and replace with" IPC Section 404.1 Accessible Plumbing Facilities. Use the Uniform Federal Accessibility Standard (UFAS) and the ABA. When these standards differ, use whichever provides the greatest accessibility requirement."

229.4.5 Item I is now modifying Section 410.5.

229.4.6 Add Item L.1, Add "Section 412.7 - Floor drains that receive indirect waste shall be provided funnels to reduce splashing. If the floor drain is connected to the Sanitary System a hub adapter shall be installed to isolate it from potential grease waste on the floor."

229.4.7 Item O. shall be modified to read "IPC Section 419.1 Approval. Add after the last sentence: "Waterless/waterfree urinals shall conform to IAPMO Z124.9 *Plastic Urinal Fixtures* or ASME A112.19.2 *Vitreous China Plumbing Fixtures and Hydraulic Requirements for Water Closets and Urinals*, but not conform to the hydraulic performance requirements. Approval for use of waterless/waterfree urinals shall come from the AHJ."

229.4.8 Add Item P, Add "Section 424.1.1 shall be modified to read "424.1.1 Faucets and supply fittings. Faucets and supply fittings shall conform to the water consumption requirements of Section 401.3."

229.4.9 Add Item Q, Add "Section 427.2 - Floor sinks receiving indirect waste shall be provided a grate with a manufacturer provided opening large enough to allow all waste run the floor sink to pass through."

229.5 Modifications to UFC 3-420-01, Appendix A – IPC Chapter 5 – Water Heaters, can be found in Section 229.5.

229.5.1 Item C. shall be modified to read "IPC Section 501.10 Solar water heating. In accordance with Public Law 110-140, Energy Independence and Security Act 2007, if life cycle cost effective, provide at least 30% of building hot water demand by solar water heaters. Conventional back-up heating equipment will be provided for periods when high demand or an extended period of cloudy days exceeds the capacity of the solar energy system."

229.5.2 Item D shall be modified to read "Add after last Sentence: "Control of scale formation will be provided with central water treatment on the hot-water system. This system will be in accordance with UFC 3-230-03 Water Treatment."

229.6 Modifications to UFC 3-420-01, Appendix A – IPC Chapter 6 – Water Supply and Distribution, can be found in Section 229.6.

229.6.1 Item H the first paragraph shall be modified to read: "Water distribution pipe shall conform to NSF 61 and shall conform to one of the standards listed in IPC Table 605.4. Hot water distribution pipe and tubing shall have a pressure rating of not less than 100 psi (690 kPa) at 180°F (82°C). Selection of pipe, valves, and fittings will be in accordance with the quality of the water. Water quality is classified under the following categories:"

229.6.2 Item I, IPC Section 606.5.11.2 shall be modified to read "606.5.11.2 Pumps. A minimum of three pumps will be provided. The pumps shall be set up in lead, lag, and standby configuration. Each pump is sized to meet the requirements of the facility. Pump capacities in gallons per minute (L/s) will be in accordance with IPC Table 606.5.11-1. Pump head is to be equal to the high pressure maintained within the hydro-pneumatic tank."

229.6.3 Item J, shall be modified to read: "IPC Section 607.1.1 *Legionella Pneumophila* (Legionnaire's Disease). The recommended practices described in ASHRAE 12 shall be considered and implemented wherever practical to minimize the risk of exposure to Legionella Pneumophila. The designer of record shall document the consideration decision process."

229.6.4 The title of Item K shall be modified to read: "K. IPC Section 607.2.2.1 Hot water supply temperature maintenance."

229.6.5 The title of Item L shall now modify Section 607.2.1 instead of Section 607.2.2.

229.6.6 Item O shall read: "Add Section 614 Ion exchange water softening treatment equipment. Softening requirements are application-specific; it is typically required where precipitation of calcium carbonate can damage boiler/water heating equipment, block conduits or for aesthetic reasons. Ion exchange water

softening is a suitable process for these purposes. However, each category has its own recommended limits for maximum hardness. Water hardness for laundries should not exceed 2.5 grains per gallon (43 ppm) and water hardness is usually reduced to zero. Large mess halls should have a water hardness not exceeding that provided for laundries; whereas, hospitals can utilize water of up to 3 grains per gallon (51 ppm) water hardness. Ion exchange water softening equipment consists of a softener unit and a regeneration brine tank utilizing common salt (NaCl) for regeneration of the softener exchange material. Softening units can be multiple units where two or more units utilize the same regenerating brine tank to provide for continuity of treatment during regeneration of a softening unit."

229.6.7 Item P which shall read: "Add IPC Section 606.2.1 Fixture Shutoff Valves. Fixture shutoff valves in public areas and leased commercial spaces shall be of the keyed type."

229.6.8 Item Q which shall read: "Modify IPC Section 607.2 to read Section 607.2 Hot or tempered water supply to fixtures. Domestic hot water supply delivery time shall be no longer than 15 seconds."

229.6.9 Add Item H.1, "Delete IPC 605.6 and replace with IPC Section 605.6 Flexible water connectors.

229.6.9.1 Flexible water connectors exposed to continuous pressure shall conform to A112.18.6/CSA B125.6

229.6.9.2 Flexible water connectors shall be of the appropriate length as to make an uninterrupted connection between the water supply stub-out , and fixture of equipment.

229.6.9.2.1 Access shall be provided to all flexible water connectors."

229.6.9.3 Add Item I.1, "Add IPC Section 606.8 System drain down. Piping systems shall be designed and installed to permit the system to be drained.

229.6.9.3.1 Section 606.8 shall not apply to buried portions systems embedded under floors or underground."

229.6.9.4 Add Item M.1, "Add IPC Section 608.8.1 shall be modified to read: "608.8.1 Information Pipe identification shall include the contents of the piping system and an arrow indicating the direction of flow. Hazardous piping systems shall also contain information addressing the nature of the hazard. Pipe identification shall be repeated at intervals not exceeding 25 feet (7620 mm) and shall follow the requirements of ANSI A13.1. Lettering shall be readily observable within the room or space where the piping is located."

229.6.9.5 Add Item M.2, "Add IPC Section 608.8.2 shall be modified to read : "608.8.2 Color - The color of the pipe identification shall be discernable and consistent throughout the building. The color purple shall be used to identify irrigation, reclaimed, rain and gray water distribution systems."

229.6.9.6 Add Item M.3 "Add IPC Section 608.8.3 shall be modified to read: "608.8.3 Size**.** The size of the background color field and lettering shall comply with the requirements of ANSI-A13.1.

229.7 Modifications to UFC 3-420-01, Appendix A - IPC Chapter 7 – Sanitary Drainage, can be found in Section 229.7

229.7.1 Item A shall be modified to read: "A. IPC Section 712.3.1 Sump pump. Add after the last sentence: "Sump pumps will be installed in pits below the lowest floor. Subsoil drains may discharge into this pit. Provide a single pump unit where the function of the equipment is not critical, and provide duplex pump units where the function of the equipment is critical and/or also where six or more water closets are being served. When duplex pump units are provided, the capacity of each pump is to be sufficient to meet the requirements of the facility. Pumps with discharge capacities in excess of 25 gallons per minute (1.6 L/s) and with a total head of at least 20 feet (6 m) will be of the duplex type."

229.8 Modifications to UFC 3-420-01, Appendix A - IPC Chapter 8 – Indirect/Special Waste, can be found in Section 229.8.

229.8.1 Item A shall be modified to read:

229.8.1.1 "IPC Section 802.1.5 Nonpotable clear-water waste. Where devices and equipment such as process tanks, filters, drips and boilers discharge nonpotable water, the discharge shall be through an indirect waste pipe by means of an air break or an air gap into the Storm System.

229.8.1.2 Clear water discharge from hydraulic elevator sump pumps will be connected directly through an oil/water separator to storm sewer, in accordance with discharge permits, regulations, and statutes."

229.8.2 Add Item C, "Revise IPC Section 802.1.3 Potable clear-water waste. Devices and equipment, such as sterilizers and relief valves that discharge potable water shall dispose of the potable water through an indirect waste pipe by means of a trap and air gap into the Storm System."

229.9 Modifications to UFC 3-420-01, Appendix A - IPC Chapter 9 – Vents, can be found in Section 229.9.

229.9.1 Item A shall be modified to read: "IPC 901.1 Scope. The provisions of this chapter shall govern the materials, design, construction and installation of vent systems. Philadelphia (one pipe), air admittance valve system, engineered vent system, or a sovent (aerator) type system shall not be permitted."

229.9.2 Add Item B "Add IPC Section 901.3 Chemical waste vent systems. Then vent system for a chemical waste shall be independent of the sanitary vent system and shall terminate separately through the roof to the outdoors."

229.9.3 Add Item C "Add IPC Section 901.6 Engineering systems. Engineered venting systems are prohibited."

229.9.4 Add Item D, which states "Add IPC Section 901.7 Grease Waste System Venting. All fixtures connected to a grease waste drainage system shall be either individually or commonly vented."

229.9.5 Add Item E "Add IPC Section 904.3 Vent termination. Vent stacks or stack vents shall terminate outdoors."

229.9.6 Add Item F, "Add IPC Section 905.1 Connection. All individual branch and circuit vents shall connect to a vent stack, stack vent, or extend to the open air."

229.10 Modifications to UFC 3-420-01, Appendix A - IPC Chapter 10 – Traps, Interceptors and Separations, can be found in Section 229.10.

229.11 Modifications to UFC 3-420-01, Appendix A - IPC Chapter 11 – Storm Drainage, can be found in Section 229.11.

229.12 Modifications to UFC 3-420-01, Appendix A - IPC Chapter 12 – Special Piping and Storage Systems, can be found in Section 229.12.

229.13 Modifications to IPC Chapter 13 – Gray Water Recycling Systems, can be found in Section 229.13.

229.14 Modifications to IPC Chapter 14 – Referenced Standards, can be found in Section 229.14.

229.15 Use UFC 3-420-01, Appendix A for modifications to IPC Appendices

230.0 CHAPTER 30 – ELEVATOR AND CONVEYING SYSTEMS

*Use IBC Chapter 30, UFC 3-600-01.

231.0 CHAPTER 31 – SPECIAL CONSTRUCTION

Use IBC Chapter 31.

232.0 CHAPTER 32 – ENCROACHMENT INTO THE PUBLIC RIGHT-OF-WAY

Use IBC Chapter 32.

233.0 CHAPTER 33 – SAFEGUARDS DURING CONSTRUCTION

233.1 Section 233.0 adopts by reference the latest edition of the SCD/OSHB Policy Chapters, as published on its website at https://safety.whs.mil/, under the delegated authority of the Director, FSD.

233.2 Where a topic is not addressed in the aforementioned Policy Chapters, use IBC Chapter 33 and UFC 3-600-01. If any conflict occurs between IBC Chapter 33 and UFC 3-600-01, the requirements of UFC 3-600-01 take precedence.

234.0 CHAPTER 34 – EXISTING STRUCTURES

Use IBC Chapter 34, except as modified below.

234.1 Use Section 3410 with UFC 3-600-01. If any conflict occurs between IBC Section 3410 and UFC 3-600-01, the requirements of UFC 3-600-01 take precedence.

234.2 Existing buildings inside the United States, its territories and possessions must comply with ICSSC RP6/NISTIR 6762 in addition to IBC Chapter 34.

234.3 All references in ICSSC RP6/NISTIR 6762 to FEMA 310 and FEMA 356 shall be considered to be references to ASCE/SEI 31-03 and ASCE/SEI 41-06, respectively.

234.3.1 Seismic evaluation of existing buildings must be in accordance with ASCE/SEI 31-03.

234.3.2 Rehabilitation of existing buildings for seismic loads must be in accordance with ASCE/SEI 41-06.

234.4 Existing Structures shall be assessed and operated in accordance with UFC 1-200-02, Chapter 4: High Performance and Sustainable Building Assessment Requirements for Existing Buildings.

235.0 CHAPTER 35 – REFERENCED STANDARDS

235.1 Use IBC Chapter 35 and Appendix D of this document.

300.0 OTHER CRITERIA

In addition to the International Building Code as modified in Chapter 2 of this WHSBC, comply with the following criteria:

301.0 HIGHER AUTHORITY MANDATES

All construction must be in accordance with all Public Laws (PS), Executive Orders (EO), Code of Federal Regulations (CFR), Department of Defense Instructions (DODI), and Department of Defense Directives (DODD) or other higher authority documents as applicable, as listed in MIL-STD-3007F, Appendix B.

302.0 UNIFIED FACILITIES CRITERIA (UFC)

Comply with latest version of UFCs.

303.0 CORE UNIFIED FACILITIES CRITERIA

See Appendix D for list of referenced Unified Facilities Criteria.

Go to http://www.wbdg.org/ccb/ for a complete list of the Unified Facilities Criteria.

303.1 Antiterrorism.

303.1.1 Antiterrorism. For antiterrorism requirements, refer to UFC 4-010-01, UFC 4-010-02 and Combatant Commander Antiterrorism construction standards.

303.2 Sustainability.

All construction shall be in accordance with each section of UFC 1-200-02.

303.3 Architectural.

303.3.1 Use UFC 3-101-01 and Section 305.0 for architectural design criteria.

303.3.2 Use UFC 3-110-03 for roofing criteria.

303.3.3 Use UFC 3-120-10 and Section 305.0 for interior design criteria.

303.3.4 Additional Architectural Modifications.

303.3.4.1 Doors entering into stairs in public corridors must contain vision panels that comply with the size and location requirements for fire resistance rated doors as applicable.

303.3.4.2 Doors swinging outward into the A or E Rings in the Pentagon must be recessed such that at no point during the swing does the door impinge greater than 7 inches (178 mm) into the overall corridor width.

303.3.4.3 Doors swinging outward into the radial corridors from normally occupied spaces must be recessed such that at no point during the swing does the door impinge greater than 7 inches (178 mm) into the overall corridor width.

303.4 Civil Engineering.

303.4.1 Use UFC 3-210-10 for low-impact development criteria.

303.4.2 Use UFC 3-201-01 for general civil engineering, and site planning and design criteria.

303.4.3 Use UFC 3-230-01 for water supply.

303.4.4 Use UFC 3-240-01 for wastewater collection.

304.0 OTHER MILITARY CRITERIA

If directed by a DODI, military criteria other than those listed in this UFC may be applicable to specific types of structures, building systems, or building occupancies. Such structures, systems, or buildings must meet the additional requirements of the applicable military criteria.

304.1 Explosives Safety.

304.1.1 This document does not contain requirements for explosives safety. All facilities that involve DoD Ammunition and Explosives (AE) storage, handling, maintenance, manufacture or disposal, as well as any facilities within the explosives safety quantity distance (ESQD) arcs of AE facilities, must comply with the explosives safety requirements found in DoD Manual 6055.09-M.

304.1.2 It is essential that the planning and design of new facilities and occupation and renovation of existing AE-related facilities or any facilities within ESQD arcs be accomplished in close coordination with knowledgeable explosives safety professionals in theater or with the Services' explosives safety centers. This coordination should occur as early as possible in the planning/design process to avoid issues/problems and ensure compliance.

304.1.3 All facility construction or use within ESQD arcs requires review for compliance with explosives safety criteria and must have either an approved explosives safety site plan or an approved explosives safety deviation. Refer to the DoD documents mentioned above for further guidance in this area.

304.2 Physical Security.

304.2.1 Physical security is that part of security concerned with physical measures designed to safeguard personnel; to prevent unauthorized access to equipment, installations, material, and documents; and to safeguard them against espionage, sabotage, damage, and theft.

304.2.2 Many buildings require some level of physical security. When required, integrate physical measures into the site, building, room(s), or area(s) as applicable. The Intelligence Community (IC) and DoD document the requirements for physical security related to specific assets in IC and DoD publications, directives, and instructions. Services have related documents that implement the IC and DoD policy for the Services. Table 304.2.2, below, lists the main DoD and IC documents that contain the physical security requirements for the protection of specific DoD assets. This does not include the policy documents associated with the protection of nuclear and chemical assets.

Table 304.2.2: Policy Related to Physical Security

ASSET	POLICY
Classified Information	DoD 5200.01, *DoD Information Security Program* http://www.dtic.mil/whs/directives/corres/pub1.html
Sensitive Compartmented Information (SCI)	UFC 4-010-05, *Sensitive Compartmented Information Facilities Planning, Design, and Construction(Effective: 1 Feb 2013)* . Intelligence Community Directive (ICD) 705, *Sensitive Compartment Information Facilities* (Effective: 23 April 2012). http://www.wbdg.org/pdfs/dod_at/ic_techspec_705.pdf Intelligence Community Standard Number 705-1 (ICS 705-1), *Physical and Technical Security Standards for Sensitive Compartmented Information Facilities* (Effective: 17 September 2010) http://www.wbdg.org/pdfs/dod_at/ics_705_1.pdf Intelligence Community Standard Number 705-2 (ICS 705-2), *Standards for the Accreditation and Reciprocal Use of Sensitive Compartmented Information* (Effective: 17 September 2010) http://www.wbdg.org/pdfs/dod_at/ics_705_2.pdf IC Tech Spec-for ICD/ICS 705, *Technical Specifications for Construction and Management of Sensitive Compartmented Information Facilities* (Effective: 5 May 2011) http://www.wbdg.org/pdfs/dod_at/ic_techspec_705.pdf
Special Access Program (SAP) Information	JAFAN 6/9 Manual, Physical Security Standards for Special Access Program Facilities http://www.ncms-isp.org/documents/JANAF_6-0.pdf
Arms, Ammunition and Explosives	DoD Manual 5100.76-M, *Physical Security of Sensitive Conventional Arms, Ammunition and Explosives* http://www.dtic.mil/whs/directives/corres/pub1.html
Weapon Systems and Platforms	DoD 5200.08-R, *Physical Security Program* http://www.dtic.mil/whs/directives/corres/pub1.html
Bulk Petroleum Products	
Communications Systems	
Controlled Inventory Items	

305.0 UNIVERSAL SPACE PLAN

The Universal Space Planning Technical Workbook shall be utilized to the greatest possible extent and will not be deviated from unless approved by the Authority Having Jurisdiction (AHJ). Copies of the workbook are available upon request from the Standards and Compliance Division at 703-695-8004.

306.0 INTEGRATED SUSTAINABLE REQUIREMENTS

306.1 * It is a FSD requirement to use material, equipment, and parts common to the building's systems. Further information can be obtained from the building manager's office.

306.1.1 The comprehensive guide for applying sustainable design is the Whole Building Design Guide (WBDG). The guide provides government and industry practitioners with one-stop access to up-to-date information on a wide range of building-related guidance, criteria and technology from a 'whole buildings' perspective. The WBDG is located at http://www.wbdg.org/index.php.

306.1.2 A WHS guide for applying sustainable design to interior and exterior renovation projects is the Compliance Checklist for Implementing Sustainability Requirements at WHS Facilities. The guide applies all sustainable design-related E.O., federal laws, UFC, DODI, and other resources to the scopes of work for renovation projects.

306.1.3 The principles and practices of low impact development (LID) shall be implemented into all project sites. Reference the WHS LID policy for specific requirements. The WHS LID Manual should be used to implement LID principles and practices throughout WHS.

306.2 For the most recent version of the Compliance Checklist for Implementing Sustainability Requirements at WHS Facilities, WHS LID Policy, WHS LID Manual, and other sustainable resources, visit the Pentagon's Environmental, Sustainability, and Energy Branch website at https://customerresources.whs.mil/FSD/scd/ESEB/index.cfm

307.0 EXTERIOR STANDARDS

307.1 *Comply with the Exterior Standards Manual for all work affecting exterior portions of the Pentagon Reservation.

307.2 Contact FSD office of Engineering and Construction Management (ECM) at 703-693-8293 for a copy of the Exterior Standards Manual.

308.0 HAZARDOUS MATERIALS USED IN CONSTRUCTION

308.1 Radioactive materials or instruments capable of producing ionizing/non-ionizing radiation as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocynates are prohibited.

308.1.1 Radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources are permitted.

308.2 Asbestos

308.2.1 *All items utilized, or work required, shall be free of asbestos in any form whatsoever.

308.2.2 The BCO shall be notified within five (5) business days of identifying that Section 104.10 must be applied to meet the requirement of Section 308.2.1, above.

309.0 LABELING STANDARDS

309.1 Pentagon Equipment Labeling Standard (PELS) shall be followed for all work that affects Federally controlled utility systems to include but not limited to Mechanical, Domestic Water, Sanitary Sewer, Storm Sewer, Fire Protection and Electrical systems on the Pentagon Reservation. Copies of the PELS are available upon request from the Standards and Compliance Division at 703-695-8004.

309.2 Fort Belvoir Mark Center Complex Equipment Labeling Standard - Reserved

ATTACHMENTS

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ATTACHMENT 1 Waiver Request Form

To Request A Waiver

1. Applicant transmits a preliminary waiver request form in electronic format to Document Control on the accepted waiver form with all requisite attachments with a meeting request date.

2. Document Control receives the preliminary waiver request, sends the request out electronically to reviewers (relevant contacts from FFD, SCD and FSD), and request that they attend the scheduled review meeting.

3. A preliminary review meeting is held on a date mutually agreed by the applicant and interested parties.

4. Applicant is responsible for documenting all comments and makes any necessary changes from the meeting.

5. Applicant, as necessary, arranges a follow up meeting with interested parties to review any changes. Reviewers indicate that they have attended and have reviewed the waiver.

6. Applicant sends the modified preliminary waiver request electronically to Document Control.

7. Document Control electronically sends the preliminary waiver request to reviewers.

8. Reviewers provide final comments to Document Control. Document Control compiles all comments and sends to the BCO. The BCO receives and reviews the comments, attaches the Waiver Request Worksheet indicating level of risk, and signs the request recommending approval or disapproval. The BCO sends request to the AHJ as well as Document Control.

9. Document Control will inform applicant of waiver request status.

10. Document Control receives the BCO signed waiver request and provides a recommendation review letter along with the entire signed package to the AHJ. The AHJ signs as accepted or rejected and returns all documentation to Document Control.

11. Document Control receives the signed or rejected waiver request from the AHJ.

12. If the waiver is approved, Document Control will file the original signed waiver, enter the accepted waiver in the Project Data Base, copying the BCO and applicant.

13. If the waiver is rejected, Document Control will file the rejected original waiver, enter the rejected waiver in the Project Data Base, copying the BCO and applicant.

14. If a waiver is rejected, once all documents have been filed, a meeting is scheduled with management leaders for further discussion.

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Waiver Request Form

Date:
Project:
Code Issue:
Code Reference:
Point of Contact Name/Firm/Title:
Point of Contact Number:

Code Issue Summary
Code Requirement
Background Information
Non-Code Compliance
Risk
Compensatory Measures
Justification for Approval

Waiver Request Recommendation	**AHJ Determination**
☐ Recommend Code Waiver ☐ Not Recommend Code Waiver	☐ Approve Code Waiver ☐ Disapprove Code Waiver
CONSTRUCTION OFFICIAL	**AUTHORITY HAVING JURISDICTION**
Name:	Name:
Date:	Date:
Signature:	Signature:

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ATTACHMENT 2 Departure Request Form

To Request A Departure

1. Applicant transmits a preliminary departure request in electronic format to Document Control on the accepted departure form (Attachment 2) with all requisite attachments with a meeting request date.

2. Document Control receives the preliminary departure request, sends the request out electronically to reviewers (involved contacts from FFD, SCD and FSD), and requests that they attend the scheduled review meeting.

3. A preliminary review meeting is held on a date mutually agreed by the applicant and interested parties.

4. Applicant is responsible for documenting all comments and makes any necessary changes from the meeting.

5. Applicant, as necessary, arranges a follow up meeting with interested parties to review any changes. Reviewers indicate that they have attended and have reviewed the departure.

6. Applicant sends the modified preliminary departure request electronically to Document Control.

7. Document Control electronically sends the preliminary departure request to reviewers.

8. Reviewers provide final comments to Document Control. Document Control compiles all comments and sends to the BCO or AHJ. The BCO/AHJ receives and reviews the comments, attaches the Departure Request Worksheet indicating level of risk, and signs the request indicating approval or disapproval. The BCO/AHJ then sends the request to Document Control.

9. Document Control will inform applicant of departure request status and return all applicable materials.

10. If the departure is approved, Document Control files the original signed departure, enters the accepted departure in the Project Data Base and copies BCO and applicant.

11. If the departure is rejected, Document Control files the rejected original departure, enters the rejected departure in the Project Data Base and copies the BCO and applicant.

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Departure Request Form

Date:
Project:
Code Issue:
Code Reference:
Point of Contact Name/Firm/Title:
Point of Contact Number:

Code Issue Summary

Code Requirement

Background Information

Non-Code Compliance

Risk

Compensatory Measures

Justification for Approval

Construction Official/AHJ Determination
☐ Approve Code Departure ☐ Disapprove Code Departure
Approving Authority (Circle One): CONSTRUCTION OFFICIAL **AUTHORITY HAVING JURISDICTION**
Name:
Date:
Signature:

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ATTACHMENT 3 Building Code Permit

To obtain a permit:

The applicant shall first file an application on the form furnished herein for that purpose.

Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the room, space, land, etc. on which the proposed work is to be done by room or corridor designation, legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use and occupancy for which the proposed work is intended.
4. Be accompanied by construction documents and other information as required in Section 107.0.
5. Include a list of other required permits and their effective dates/anticipated submittal dates that will be required to complete the scope of work (optional).
6. Be signed by the applicant, or the applicant's authorized agent.
7. Provide such other data and information as required by the BCO.

Action on application: The BCO shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not meet the requirements of this document, the BCO shall reject such application in writing, stating the reasons therefore. If the BCO is satisfied that the proposed work conforms to the requirements of this code, the BCO shall issue a permit therefore as soon as practicable.

Time limitation of application: Stated on permit application – the BCO is authorized to grant one or more extensions of time for additional periods. The extension shall be requested in writing and justifiable cause demonstrated.

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Permit No: _____

BUILDING PERMIT APPLICATION

Department of Defense – Washington Headquarters Services
Facilities Services Directorate
Standards and Compliance Division, Construction Official
whs.planreview@mail.mil - Tel. (703) 695-8004

IMPORTANT – Complete ALL applicable items on Pages 1 and 2. Pages 3 and 4 are FOR OFFICE USE ONLY.

Building/Project Name: _____
Room No.: _____ Applicant Name: _____
Address: _____ Phone No.: _____
_____ E-Mail Address: _____

Tenant: _____ Gen. Contractor: _____
Contact Person: _____ Contact Person: _____
Room No.: _____ Phone No.: _____ Room No.: _____ Phone No.: _____
Address: _____ Address: _____
_____ _____
E-Mail Address: _____ E-Mail Address: _____
_____ License No.: _____

Architect: _____ Government POC: _____
Contact Person: _____ Title: _____
Room No.: _____ Phone No.: _____ Room No.: _____ Phone No.: _____
Address: _____ Address: _____
_____ _____
E-Mail Address: _____ E-Mail Address: _____
License No.: _____ Organization: _____

☐ New Construction If existing: Most Recent Certificate of Occupancy Date: _____
☐ Existing Use Group(s) Most Recently Approved: _____
Codes of Record (Issue Dates): WHS Building Code: _____ Which Adopts IBC: _____
Other: _____

Project Description: _____
_____
Will the space be occupied during construction? ☐ No ☐ Yes
Project No.: _____ Contract No.: _____
Estimated Start Date: _____ Estimated Completion Date: _____ Estimated Cost: $ _____

Mixed Use: ☐ No ☐ Yes Primary Use Group: _____ Total Area (sq ft): _____
If yes, other use group(s): _____ No. of Stories: _____
Construction Type: ☐ IA ☐ IB ☐ IIA ☐ IIB ☐ IIIA ☐ IIIB ☐ IV ☐ VA ☐ VB
☐ Other, explain: _____
Fire Alarm System Provided: ☐ No ☐ Yes Floor Loading: _____
Fire Sprinkler System Provided: ☐ No ☐ Yes - If partial, explain: _____

AFFIDAVIT

I hereby certify that I have the authority to make the foregoing application and that the application, to the best of my knowledge, is complete and correct and that the plans submitted conform to the requirements of the WHS Building Code (_____ edition) and all applicable ordinances.

_____ Room No.: _____ Phone No.: _____
Printed Name of Applicant Address: _____
_____ _____
Signature of Applicant Date E-Mail Address: _____

Permit No: _____

Attachments to Building Permit Application

Providing the information requested herein is not required; however, providing this information with your application may facilitate expedited processing of your application.

Attachment 1: Plans Submitted

Plans Submitted Check all plans that are included with this application			
☐	Civil	☐	Electrical - Power
☐	Underground Fire Protection	☐	Electrical - Lighting
☐	Structural	☐	Mechanical
☐	Architectural	☐	Plumbing
☐	Fire Protection	☐	Safety
☐	Fire Alarm	☐	Environmental and Waste Management
☐	Life Safety	☐	Sustainability and Energy
☐	Accessibility	☐	Tenant Fit-Out
☐	NCPC	☐	Security
☐	Exterior Standards	☐	Other:
☐	Other:	☐	Other:

Attachment 2: Permits

Permits Check all permits that have been/will be obtained related to work described in this application. See Section 105.1 for requirements and contact information for individual permits.			
	Permit	**Permit No.**	**Effective Date**
☐	Air Quality Permit Review		
☐	Antennas and Similar Devices Installation Application		
☐	Asbestos Control Permit		
☐	Building Permit		
☐	Building Pass Application		
☐	Confined Space Permit		
☐	Demolition Permit		
☐	Excavation Permit		
☐	Exhibits, Artwork and Signs on the Pentagon Reservation		
☐	Flammable, Combustible, and Hazardous Materials Permit		
☐	Hazardous Materials Management Form		
☐	Hot Work Permit		
☐	Lead Work		
☐	LPG Permit		
☐	Open Flame Permit		
☐	Photo Permit		
☐	Roof Access Permit		
☐	Roof Hot Work Permit		
☐	Space Access		
☐	Stationary Lead Acid Battery Systems Permit		
☐	Use of Explosives Permit		
☐	Use of Space on the Pentagon Reservation Permit		
☐	Utility Outage Permit		
☐	Utility Space Access Permit		

Permit No: _____

BUILDING PERMIT

Department of Defense – Washington Headquarters Services
Facilities Services Directorate, Authority Having Jurisdiction
Standards and Compliance Division, Construction Official
whs.planreview@mail.mil - Tel. (703) 695-8004

This page is FOR OFFICE USE ONLY.

Project Description: _____

_____

Will the space be occupied during construction? ☐ No ☐ Yes
Project No.: _____ Contract No.: _____

☐ Approved ☐ Disapproved – Reason: _____

Approving Official
Printed Name: _____
Title: _____
Signature: _____
Issue Date: _____ Expiration Date: _____

Plan Reviews

Review	Req'd	Date Approved	By	Review	Req'd	Date Approved	By
Civil	☐			Electrical - Power	☐		
Underground Fire Prot.	☐			Electrical - Lighting	☐		
Structural	☐			Mechanical	☐		
Architectural	☐			Plumbing	☐		
Fire Protection	☐			Safety	☐		
Fire Alarm	☐			Environ. and Waste Mgmt.	☐		
Life Safety	☐			Sustainability and Energy	☐		
Accessibility	☐			Tenant Fit-Out	☐		
NCPC	☐			Security	☐		
Exterior Standards	☐			Other:	☐		
Other:	☐			Other:	☐		

Inspections Required Before Issuance of Certificate of Occupancy
(Check all that apply - See reverse for tracking form)

☐ Footing and foundation inspection	☐ Concrete slab, foundation wall, and under-floor inspection	☐ Lowest floor elevation inspection (in flood areas)
☐ Underground inspection	☐ Roof framing inspection	☐ Wall framing inspection
☐ Wall close-in inspection	☐ Ceiling close-in inspection	☐ Life safety inspection
☐ Fire- and smoke-resistant penetration inspection	☐ Fire protection and alarm inspection	☐ Lath and gypsum board inspection
☐ Accessibility inspection	☐ Mechanical inspection	☐ Electrical inspection
☐ Plumbing inspection	☐ Energy efficiency inspection	☐ Elevator inspection
☐ Other:	☐ Other:	☐ Other:
☐ Final Inspection		

Building Permit must be prominently displayed at the construction site from the time work begins until the expiration date or the work is completed, whichever is earlier.
Replacement copies can be obtained by contacting SCD at 703-695-8004.

Permit No: _____

INSPECTIONS TRACKING FORM

Department of Defense – Washington Headquarters Services
Facilities Services Directorate, Authority Having Jurisdiction
Standards and Compliance Division, Construction Official
whs.planreview@mail.mil - Tel. (703) 695-8004

This form is provided to assist with recordkeeping for required inspections.
Please submit a copy of this form in conjunction with your request for final inspection.
For fastest execution, file the completed Certificate of Occupancy form concurrently with requesting the final inspection.

Inspections			
Review	**Required**	**Signature of Inspector**	**Date Approved**
Footing and foundation inspection	☐		
Concrete slab, foundation wall, and under-floor inspection	☐		
Lowest floor elevation inspection (in flood areas)	☐		
Underground inspection	☐		
Roof framing inspection	☐		
Wall framing inspection	☐		
Wall close-in inspection	☐		
Ceiling close-in inspection	☐		
Lath and gypsum board inspection	☐		
Fire- and smoke-resistant penetration inspection	☐		
Fire protection and alarm inspection	☐		
Life safety inspection	☐		
Accessibility inspection	☐		
Mechanical inspection	☐		
Electrical inspection	☐		
Plumbing inspection	☐		
Energy efficiency inspection	☐		
Elevator inspection	☐		
Other:	☐		
Other:	☐		
Other:	☐		
Final Inspection (Required for ALL)	Fire/Life Safety		
	Electrical		
	Mechanical		
	Plumbing		
	Environmental		
	Safety		

ATTACHMENT 4 Application for Certificate of Occupancy

To obtain a Certificate of Occupancy:

The applicant shall first file an application on the form furnished by the FSD Standards and Compliance Division (SCD) for that purpose.

Such application shall:

1. Verify and update/correct any information on the Certificate of Occupancy form.
2. Include copy of the building code permit and a completed inspection form indicating the inspector and date for each required inspection.
   Note: Final inspection signatures and dates are not required when form is submitted. Final inspection by all trades must be completed prior to issuance of certificate.
3. Include a signature from the COR.
4. Provide such other data and information as required by the BCO.

Action on application: The BCO shall examine or cause to be examined applications for certificates and amendments thereto within a reasonable time after filing. If the application or the inspection information does not meet the requirements of this document, the BCO shall reject such application in writing, stating the reasons therefore. If the BCO is satisfied that the proposed work conforms to the requirements of this code, approved project documentation, and all applicable ordinances, the BCO shall issue a certificate therefore as soon as practicable.

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Permit No: _____

CERTIFICATE OF OCCUPANCY

Department of Defense – Washington Headquarters Services
Facilities Services Directorate
Standards and Compliance Division, Construction Official
whs.planreview@mail.mil - Tel. (703) 695-8004

IMPORTANT – Applicant to complete ALL applicable items. Shaded boxes are FOR OFFICE USE ONLY.

Building/Project Name: _____
Room No.: _____ Tenant Name: _____
Address: _____ Phone No.: _____
_____ E-Mail Address: _____

☐ New Building If existing: Most Recent Certificate of Occupancy Date: _____
☐ Existing Building Use Group(s) Most Recently Approved: _____
Codes of Record (Issue Dates): WHS Building Code: _____ Which adopts IBC: _____
Other: _____

Mixed Use: ☐ No ☐ Yes Primary Use Group: _____ Total Area (sq ft): _____
If yes, other use group(s): _____ No. of Stories: _____
Construction Type: ☐ IA ☐ IB ☐ IIA ☐ IIB ☐ IIIA ☐ IIIB ☐ IV ☐ VA ☐ VB
☐ Other, explain: _____
Fire Alarm System Provided: ☐ No ☐ Yes Floor Loading: _____
Fire Sprinkler System Required: ☐ No ☐ Yes Provided: ☐ No ☐ Yes
If partial, explain: _____

AFFIDAVIT

I hereby certify that I have the authority to make the foregoing application and that the application, to the best of my knowledge, is complete and correct and that the permitted construction conforms to the requirements of the WHS Building Code (_____ edition), approved project documentation, and all applicable ordinances.

Room No.: _____ _____ _____
Address: _____ Printed Name of Applicant Phone No.
_____ _____ _____
Project No.: _____ Signature of Applicant Date

APPROVALS

☐ Certificate of Occupancy ☐ Temporary Certificate of Occupancy

Approving Official
Printed Name:
Title:
Signature:
Approval Date:

Max Occupancy Load: _____ Approved Use Group(s): _____
Stipulations: _____
_____

Revision History			
Date	Approving Official	Permit No.	Description

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APPENDICES

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APPENDIX A Explanatory Material

A101.7.7 The executive official in charge of the building department is named the "building code official" by this section. In actuality, the person who is in charge of the department may hold a different title, such as building commissioner, building inspector or building official. For the purpose of the code, that person is referred to as the "building code official."

A101.7.9 An example of a Change of Use - The Child Development Center (CDC) is changed from a day-care occupancy to a business occupancy.

A101.7.16 An example of New Construction - The new Pentagon Emergency Response Center (PERC), Pentagon Secure Access Lane (SAL), Fort Belvoir Mark Center Campus (FBMCC).

A101.7.42 An example of a Modification - Adding a third fan to an Air Handler, adding a condensate drain to a Blended Chilled Water FPIU, adding a heating coil to a terminal unit without one.

A101.7.57 The project manager (PM) is responsible for ensuring all activities related to projects are executed according to WHS, customer, DoD, and related outside agency requirements and regulations. The PM has the following additional responsibilities:

1. Establishes an Integrated Project Team (IPT) to plan and oversee project.
2. Coordinates the development of the Project Management Plan (PMP).
3. Follows procedures in the WHS Acquisitions Directorate (AD) Acquisition Handbook.
4. Chairs Project IPT.
5. Makes milestone presentations to the FSD Director, as requested.
6. Provides status information in appropriate format to PMO.
7. Ensures customers and stakeholders are informed of the status, budget and any issues or concerns, along with remedial or mitigating actions, relating to the project.
8. Ensures project closeout and transition requirements are met.

A101.7.61 DoD real property is accounted both physically and fiscally.

A101.7.62 Rebuilding a pump with parts of the same part numbers that came out of the pump, fixing a hole in the wall with the exact same material that was originally installed.

A101.7.63 Replacing one manufacturer's air handler with another manufacturer's air handler built with the same purpose; changing a Schedule 10 sprinkler pipe with Schedule 40.

A103.2 This section establishes the Building Code Official as an appointed position by the Authority Having Jurisdiction.

A105.1.20 Access to Controlled Areas: Controlling access to locations within the building and various surrounding related locations is a key component of maintaining our nation's safety and security. In the event that a project team member or contractors needs access to a particular space or area that is not normally involved in the course of everyday duties, such as a secure location currently or soon to be under construction as part of an official project, or one that for some reason needs to be accessed after normal business hours, it is necessary to obtain the proper swipe access clearance via the appropriate security channels.

To gain access to a space the following information is needed:

1. Full Name.
2. Social Security Number.
3. Office Telephone Number.

4. Name and location of space to be accessed, and reason why.

This information should be given in person in order to protect against loss of personal information. If email must be used, the email containing this information must be encrypted. Any information attempted to be submitted via telephone or a third party will be rejected immediately.

Once submitted, the normal turnaround time is 72 hours. However, due to unforeseen occurrences including but not limited to personnel absences, computer outages, and office closures, this process can take longer. It is strongly recommended that requestors allow up to 120 hrs when submitting requests.

It is important to note that once a space changes ownership, requested access to that space will expire and continued access will require a resubmission of the appropriate information through the new owner.

A105.2.1.1 Permit review and field inspection procedures are required for emergency repairs; however, due to the nature of an emergency repair, this section allows the permit process to begin the next business day after repairs are conducted.

A107.4.1 A minor change is defined as a deficiency identified during a field walk that can be resolved with no additional design (for example a missing or blocked exit sign).

A107.6.3.2.1 The DD Form 1354 is the official acceptance of real property for beneficial occupancy.

A110.3.21 A Preparation Checklist for Final Code Compliance Inspection and Punch List should be developed by the contractor/builder as tools to complete this verification. All punch list items that are noted during the contractor/builder verification should be closed out before calling for the Final Code Compliance Inspection.

A117.1 Commissioning is a proactive, systematic, and rigorous process of assuring by documentation, functional testing, and training, from the design phase to a minimum of one year after construction, that all building facility systems perform interactively in accordance with the design documentation and intent, and in accordance with the Government's operational needs. This process judges correct performance of both individual systems and systems operating interactively according to the project design intent. A guide for commissioning processes is available at http://www.wbdg.org/project/buildingcomm.php.

A204.6.4.1 If an existing system can provide adequate listed coverage of additional equipment or changing of equipment, the requirement for water-assisted systems need not apply.

A204.6.4.5 This judgment should take into account the type of cooking being performed, items being cooked, and the frequency of cooking operations. Examples of operations that might not require commercial cooking equipment and related levels of protection include the following: (1) Operations that are not cooking meals that produce grease-laden vapors, (2) Employee break rooms where food is warmed.

A207.2.3 Access panels must be located on the non-exit passageway side. Mechanical, electrical, information technology and other utility design teams should coordinate location of their equipment and materials so that access to serviceable components can be reached by means other than through the exit passageway envelop.

A208.7 Section 2-6.4 of UFC 1-200-02, 1 March 2013 provides requirements that are applicable to interior finishes.

A209.4.5.2 Revising existing Light Hazard sprinkler coverage to Ordinary Hazard Group 1 sprinkler coverage may require modifying existing sprinklers as well as branchline, cross main, and/or feed main piping over areas outside the scope of work of the renovation responsible for completing the revision.

A209.4.5.3 This requirement is based upon a history of pipe failure/leakage within the Pentagon as well as high levels of microbes known to be associated with microbiologically influenced corrosion within the water supply on the Pentagon Reservation.

A209.4.15 Refer to project documentation (future Facilities Guide Specifications) to determine when sprinkler piping must be concealed, exposed and painted, etc.

A209.4.18 Refer to project documentation (future Facilities Guide Specifications) for requirements pertaining to sprinkler pipe finishes and markings.

A210.2.3 Contact SCD at 703-695-8004 for additional descriptions and photographs of the signage discussed herein.

A210.2.3.6.2 The mounting of directional striping in track frames on furniture and equipment will simplify directional rearrangement should the furniture be relocated.

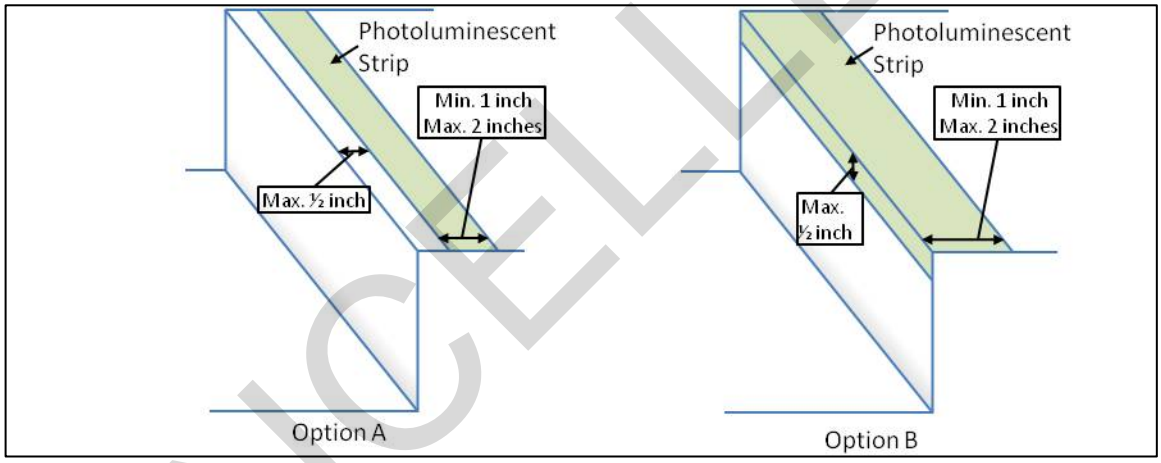
A210.2.3.7 Refer to the Photoluminescent Exit Signs and Marking informational packet available from the Office of the Pentagon Fire Marshal on its website at https://fire.whs.mil, or via email at whs.fireinfo@mail.mil.

A210.2.3.7.1.3 Corridor doors leading to spaces other than exits should be provided with a "NO EXIT" sign.

A210.2.3.7.2 All stairway markings are designed to direct travel to the level of exit discharge.

A210.2.3.7.2.4 See below.

Figure 1: Graphical Representation of Stair Photoluminescent Striping Requirements



A210.2.3.7.4 Individual offices, by virtue of the type of occupancy, require a minimal amount of Low-Location Exit Path Marking to provide the occupant(s) with sufficient light source to exit the room.

A210.2.3.7.5 Most office suites are typically a combination of individual offices, small conference rooms and multiple work stations as well as equipment and furniture (copy machines, file cabinets, bookcases, etc.),

A210.2.3.7.9.2 NO EXIT signs should be provided at restrooms with doors which could be mistaken for exit corridors.

A210.2.3.7.13.4 Doors leading to spaces other than exits should be provided with a "NO EXIT" sign.

A210.2.7 Example of lock-sets meeting this requirement include the LKM7000 and the LKM10K series locks.

A213.0 Use DoDI 4170.11 to supplement UFC 1-200-02.

A213.8.1 DoD Instruction (DoDI) 4715.03, Natural Resources Conservation provides policy regarding Environmentally and Economically Beneficial Landscape Practices on Federal landscaped Grounds. The LID Manual can be accessed at: https://customerresources.whs.mil/FSD/SCD/ESEB/Natural%20Resources%20Management/LID.cfm

A227.0 IBC, Chapter 27 adopts by reference the National Electrical Code, NFPA70.

A227.3.1.1 After the Pentagon Renovation, a myriad of lighting standards existed for a variety of space types. In the development of the Pentagon Lighting Master Plan, government responses to contract deliverables have asked for compliance with certain codes and guidelines not mentioned explicitly in the Performance Work Statement (PWS). Among other design considerations, one component of the referenced codes and guidelines is target light level requirements. In some cases, the referenced code and guidelines have conflicting target light level requirements. The following codes and guidelines were considered:

- Unified Facilities Criteria (UFC) 3-530-01: Design: Interior, Exterior Lighting and Controls
- USP Utilities Design Criteria: Universal Space Plan (USP) Technical Workbook, Chapter 4
- Compliance Checklist for Implementing Sustainability Requirements at WHS Facilities
- TIA
- IES

Table A227.3.1.1 – Abbreviated Comparison and Government Direction of Light Level Requirements

	DESIGN REFERENCE				
	UFC 3-530-01	USP Utilities Design Criteria	Compliance Checklist for Implementing Sustainability Requirements at WHS Facilities	TIA	IES
Space type	Target (fc)	Target (fc)	Target (fc)	Target (fc)	Target (fc)
Large lobby	10fc				10fc
Corridors	5fc	15fc	15fc		0.30 * average (fc) in adjoining space (in this case, office space) ~ 10fc
Private office	30fc ambient	14fc ambient	30fc ambient		30fc
	50fc task	42fc task	50fc task		30fc
Open office	30fc ambient	14fc ambient	30fc ambient		30fc
	50fc task	42fc task	50fc task		30fc
Waiting areas	10fc ambient				10fc
	50fc task				
Conference rooms	30-50fc	28fc			30fc
Lounges	10fc				10fc
Office support	30fc ambient				15fc
	50fc task				30fc
Storage rooms	10fc				10fc
Mechanical/Electrical	30fc	27fc			20fc
Electrical closets					10fc
Restrooms	5fc ambient	18fc			15fc
Kitchens	50fc	75fc			50fc
Cafeteria	10fc				15fc
	50fc				

	DESIGN REFERENCE				
	UFC 3-530-01	USP Utilities Design Criteria	Compliance Checklist for Implementing Sustainability Requirements at WHS Facilities	TIA	IES
Space type	Target (fc)	Target (fc)	Target (fc)	Target (fc)	Target (fc)
Enlisted dining rooms	10fc	30fc			15fc
	50fc				
Officer dining rooms	10fc	30fc			15fc
	50fc				
Indoor pool					
	Per IES RP-6				10fc
Indoor basketball	30fc				30fc
	Per IES RP-6				
Locker Rooms	10fc				5fc
Retail		37fc			40fc
Command and Operation Center		46fc			
TC closets		46fc			15fc
Communications Equipment Closets		51fc		50fc horizontal 20fc vertical	50fc
TC - Wedge rooms (data center)		51fc		50fc horizontal 20fc vertical	10fc
Consolidated Radio Rooms (CRR)		50fc			

A227.5.1 Typical types of equipment include pad-mounted transformers, switchgear, switchboards, panelboards, disconnect switches, industrial control panels, meter socket enclosures, and motor control centers that are in other than dwelling occupancies.

A228.3.3.2 For example, envelope loads, equipment loads, occupant loads

A228.3.3.4 For example, conference room to office space, storage close to copy machine room.

A228.3.10.2 Examples of mechanical equipment that need to be remotely monitored include chiller, cooling tower, boiler, air handling unit, terminal unit, fan, pump, heat exchanger, kitchen hood, split system, fan coil unit, damper, and gas detector.

A228.4.6.1 Plastic fire sprinkler piping is not permitted, only Schedule 40 steel pipe is allowed. See Section 209.4.5.5

A229.1.2.2 Examples of plumbing equipment that need to be remotely monitored include pump, heat exchanger, water heater, and drain overflow switch.

A229.3.1 The 2012 Edition of IPC Section 305.4 is 2006 IPC 305.6

A230.0 When UFC 3-490-06 is published, use IBC Chapter 30, UFC 3-600-01, and UFC 3-490-06.

A306.1 The intent of this is to reduce repair parts inventories as well as to maintain standardization of systems.

A307.1 The Pentagon Reservation Exterior Standards Manual has been developed for the Washington Headquarters Services (WHS) for the purpose of defining future standards for the design of exterior building and site elements on the Pentagon Reservation in Arlington, Virginia. The Pentagon is a designated National Historic Landmark originally constructed in 1943. A set of reference guidelines is required for future exterior repairs, design, and construction activities, to provide clarity as to how to preserve the historic elements protected by the National Historic Preservation Act and its implementing regulations.

A308.2.1 A waiver to this prohibition may be requested per Section 104.10 when an asbestos-free product is not available. Such requests shall be fully documented and submitted as soon as possible after the contractor determines that an asbestos-free product is not available.

APPENDIX B Adopted Procedures

PROCEDURE	AUTHORITY	AVAILABLE THROUGH	APPLICABLE FOR
Air Quality Permit Review	SCD/ESEB	SCD/ESEB 703-693-3683	Use of temporary generators and/or boilers for any activity, ceremony, special event or display.
Antennas and Similar Devices Installation Application	PBMO	whs.permitreview@mail.mil DD1494 – Application for Equipment Frequency Allocation as published by PBMO.	Installation of temporary or permanent roof penetrating equipment or radio frequency generating device.
Asbestos Control Permit	SCD/OSHB	https://safety.whs.mil/ under "Forms"	Any work requiring access to and/or disturbance of existing asbestos materials.
Building Pass Application	PFPA	http://www.pfpa.mil/	All individuals required to access the property for inspection, survey, work or other purposes.
Building Code Permit	SCD/BCO	Attachment 3 of this code	Any construction, alteration, modification, or change in occupancy being completed.
Cable Pulling Permit	PBMO	whs.permitreview@mail.mil	Cable pulling installations in above-ceiling, PBMO or publicly held spaces.
Confined Space Permit	SCD/OSHB	https://safety.whs.mil/ under "Confined Space"	Any work that requires an individual to enter a confined space, supervise an entry, or approve an entry.
Demolition Permit	SCD/OPFM and PBMO	https://fire.whs.mil under "Permits Section"	Whenever demolition of structures is required to complete project work.
Excavation Permit	PBMO	whs.permitreview@mail.mil	For any work that may disrupt underground communication or utility lines, or above ground rights of ways.
Exhibits, Artwork, and Signs on the Pentagon Reservation	PBMO	http://www.dtic.mil/whs/directives/corres/pdf/a103p.pdf (See also Space Use Permit)	Whenever exhibits, artwork, or signs are to be installed or modified
Exterior Standards Manual	ECM	ECM at 703-693-8293	Any work affecting exterior portions of the Pentagon Reservation.
Flammable, Combustible, and Hazardous Materials Permit	SCD/OPFM	https://fire.whs.mil, under "Permits Section" and under "Fire Regulations"	Any work requiring the use, storage, or manipulation of flammable, combustible, or hazardous materials.
Hazardous Material Management Form	SCD/OSHB and OPFM	https://safety.whs.mil/, under "Forms"	When a WHS individual or group wants to test, try, use, or bring on property a product not currently on the WHS chemical inventory.
Hot Work Permit (Welding, Cutting, or Brazing)	-	-	Any operation involving open flames or producing heat and/or sparks, hot slag, or dross. Hot work includes, but is not limited to, brazing, cutting, grinding, soldering, arc welding, work on a pipe that would conduct heat through a wall or in contact with a wall, or torch-applied roofing.
Pentagon	PBMO	PBMO O&M at 703-693-8084	
HRP and FBMCC	SCD/OPFM	https://fire.whs.mil under "Permits Section"	
Lead Work	SCD/OSHB	https://safety.whs.mil/, under "Policy Chapters – Chapter 21 Lead"	During the use, handling, and removal of materials containing lead.
LPG Permit (See also Air Quality Permit)	SCD/OPFM	https://fire.whs.mil, under "Permits Section"	As required by NFPA 1, the Fire Prevention Code, and NFPA 58, and/or the Liquefied Petroleum Gas Code.
Open Flame Permit	SCD/OPFM	https://fire.whs.mil/, under "Permits Section"	Whenever an open flame will be used or displayed other than during hot work.

PROCEDURE	AUTHORITY	AVAILABLE THROUGH	APPLICABLE FOR
Photo Permit	PFPA/Director SSD	PFPA/SSD Access Control Staff at 703-614-1529	Whenever photography is required to complete a project/scope of work on WHS property.
Roof Access Permit	PBMO	whs.permitreview@mail.mil	All work requiring access to the roof.
Roof Hot Work Permit	PBMO	whs.permitreview@mail.mil	Any roof operation involving open flames or producing heat and/or sparks, hot slag or dross. Hot Work includes, but is not limited to, brazing, cutting, grinding, soldering, arc welding, work on a pipe that would conduct heat through a wall or in contact with a wall, or torch-applied roofing.
Space Access	Component Security Officer/Manager	DTM 09-012, "Interim Policy Guidance for DoD Physical Access Control", as published by the Defense Technical Information Center (DTIC), on its website at http://www.dtic.mil/whs/directives/corres/pdf/DTM-09-012.pdf	Whenever access to DoD installations or stand-alone facilities is required. Note: Additional access requirements may apply depending on work location.
Stationary Lead-Acid Battery Systems Permit	(Reserved)	(Reserved)	(Reserved)
Universal Space Plan	SCD	SCD at 703-695-8004	Whenever space modifications are planned for spaces within the Pentagon.
Use of Explosives Permit	PBMO	whs.permitreview@mail.mil	All work requiring use or storage of explosives.
Use of Space on the Pentagon Reservation Permit (to include land)	PBMO Special Events Office	DD2798, as published by the Defense Technical Information Center (DTIC), on its website at http://www.dtic.mil/whs/directives/infomgt/forms/eforms/dd2798.pdf authority for which is granted by Title 32 of the Code of Federal Registrar (CFR) Part 234.3D.	Whenever events, installations, projects, etc. require use of PBMO controlled or public spaces on WHS property. Use of equipment such as barbeque grills and open flames must be included in the Space Use Permit. Use of space permits are required for the following: Cable pulling (See also Cable Pulling Permit), Construction Demolition of structures Excavation (See also Excavation Permit), Flammable/combustible liquids storage (See also Flammable and Combustible Liquids Storage Permit Requirements), Gatherings such as meetings or parties in public areas Moved structures, Open flames (See also Open Flame Permit), Project laydown and storage areas (See also Public Space Policy), Roof Work (See also Roof Work Access Permit and Roof Hot Work Permit), Temporary Structures, Temporary Use of Equipment, Use of Explosives (See also Use of Explosives Permit)
Utility Outage Permit	PBMO O&M	PBMO O&M at 703-693-8084	Whenever a utility outage (electrical, mechanical, plumbing, telecommunication, fire protection, etc.) is required to complete work on WHS property.
Utility Space Access Permit	PBMO	PBMO O&M at 703-693-8084	Reserved

APPENDIX C Procedure for Changing the WHSBC

The following outlines the procedures and key timelines for requesting changes to the WHSBC:

A. Per Department of Defense Directive 4270.5, buildings, structures, etc. that fall under the jurisdiction of this Code are required to comply with the UFC to the greatest extent practicable. As such, this Code will be revised to reflect UFC revisions within 60 days of all UFC change releases directly affecting the WHSBC. Such interim revisions will include only those changes necessary to reflect new/modified UFC requirements. Until WHSBC revisions are completed, compliance with any new/modified requirements within the UFC is required in addition to compliance with the WHSBC.

B. Any individual or DoD Component subject to the code wishing to propose a change to the WHSBC shall submit a WHSBC Proposal Form to the SCD. The form can be found on the OPFM Website at https://fire.whs.mil.

1. After July 1 of each year, the code panel(s) will review all proposals submitted during the previous year and make recommendations to accept, accept in part, accept in principle, hold for additional information, or reject any proposal.
2. Proposed changes to the WHSBC and code panel recommended actions (Report on Proposals) will be posted to the OPFM Website at https://fire.whs.mil for public comment by September 1 of each year for 30 days. Comments are to be made using the Public Comment Form located on the OPFM website.
3. Public comments must be submitted by October 1.
4. Upon review of comments, the code panel(s) will make final recommendations for proposed changes to the Director, FSD, by November 1 of each year.
5. The Director, FSD, will approve any changes and updates to the WHSBC by December 1 of each year.
6. Changes acted upon by Director, FSD, will be effective Jan 1 of each year.
7. The Director, FSD, at his or her sole discretion, may institute a tentative interim amendment (TIA) to the WHSBC if an emergency nature requiring prompt action. Determination of an emergency nature to life or property shall include, but not be limited to, one or more of the following:

    a. The WHSBC document contains an error or an omission.
    b. The WHSBC document contains a conflict within the document.
    c. The proposed TIA intends to correct a previously unknown existing hazard.
    d. The proposed TIA intends to offer individuals or DoD Components subject to the code a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation.
    e. When a change in the UFC and/or ICC/NFPA standards creates a new conflict with the WHSBC.

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APPENDIX D References

GOVERNMENT PUBLICATIONS

ARCHITECTURAL BARRIERS ACT (ABA)

ABA Accessibility Standard for Department of Defense Facilities,
http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/aba-standards

"Access for People with Disabilities", Memorandum, October 31, 2008, Deputy Secretary of Defense, 1010 Defense Pentagon, Washington, DC 20301-1010.
http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards*ADA and ABA Accessibility Guidelines for Buildings and Facilities*, U.S. Access Board
http://www.access-board.gov

Architectural Barriers Act of 1968 (ABA), as amended, 42 U.S.C. § 4151, et seq., and Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794.
http://www.gpo.gov/fdsys/pkg/FR-2007-06-20/pdf/07-2979.pdf

AIR FORCE MANUAL (AFMAN)

AFMAN 91-201 *Explosives Safety Manual*
http://www.wbdg.org/ccb/AF/AFM/afman_91_201.pdf

DEPARTMENT OF THE ARMY PUBLICATIONS AND MANUALS (DA PAM)

DA PAM 385-64 *Ammunition and Explosives Standards*
https://acc.dau.mil/CommunityBrowser.aspx?id=237824

DOD ADMINISTRATIVE INSTRUCTION (AI)

AI-103 *Exhibits, Artwork, and Signs on the Pentagon Reservation*
http://www.dtic.mil/whs/directives/corres/pdf/a103p.pdf

DOD DIRECTIVE (DODD)

DoDD 4270.5 Military Construction
http://www.dtic.mil/whs/directives/corres/pdf/427005p.pdf

DOD INSTRUCTION (DODI)

DoDI 4170.11 Installation Energy Management
http://www.dtic.mil/whs/directives/corres/pdf/417011p.pdf

DoDI 4715.03 Natural Resources Conservation Program
http://www.dtic.mil/whs/directives/corres/pdf/471503p.pdf

DOD MANUAL

DOD MANUAL 5100.76-M *Physical Security of Sensitive Conventional Arms, Ammunition and Explosives*
http://www.dtic.mil/whs/directives/corres/pub1.html

DOD MANUAL 5200.1 *DoD Information Security Program*
http://www.dtic.mil/whs/directives/corres/pub1.html

DOD MANUAL 5200.08R *Physical Security Program*
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DOD MANUAL 6055.09-M *DoD Ammunition and Explosives Safety Standards*
http://www.dtic.mil/whs/directives/corres/html/605509m.html

EXECUTIVE ORDERS

Executive Order 13514 – *Federal Leadership in Environmental, Energy, and Economic Performance*

Presidential Memorandum on Environmentally and Economically Beneficial Landscape Practices on Federal Landscaped Grounds

Energy Independence Security Act of 2007

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA-310 *Handbook for the Seismic Evaluation of Buildings*, http://www.wbdg.org/ccb/DHS/ARCHIVES/fema310.pdf

INTELLIGENCE COMMUNITY

INTELLIGENCE COMMUNITY DIRECTIVE (ICD) 705,
Sensitive Compartment Information Facilities (Effective: 23 April 2012)
http://www.wbdg.org/pdfs/dod_at/ic_techspec_705.pdf

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Physical and Technical Security Standards for Sensitive Compartmented Information Facilities (Effective:17 September 2010)
http://www.wbdg.org/pdfs/dod_at/ics_705_1.pdf

INTERAGENCY COMMITTEE ON SEISMIC SAFETY IN CONSTRUCTION

ICSSC RP6/NISTIR 6762 *Standards of Seismic Safety for Existing Federally Owned and Leased Buildings*, U.S. Department of Commerce, Technology Administration, Structures Division, Building & Fire Research Laboratory, National Institute of Standards and Technology, Gaithersburg, MD, http://fire.nist.gov/bfrlpubs/build01/PDF/b01056.pdf

MILITARY STANDARD (MIL-STD)

MIL-STD-3007F *Standard Practice for Unified Facilities Criteria and Unified Facilities Guide Specifications*, 13 December 2006, http://www.wbdg.org/ccb/FEDMIL/std3007f.pdf

UNIFIED FACILITIES CRITERIA (UFC)

SERIES 1: **POLICY, PROCEDURES AND GUIDANCE**

SERIES 1-200: **POLICY**

UFC 1-200-01 General Building Requirements, with Change 2
http://wbdg.org/ccb/DOD/UFC/ufc_1_200_01.pdf

UFC 1-200-02 High Performance and Sustainable Building Requirements
http://www.wbdg.org/ccb/DOD/UFC/ufc_1_200_02.pdfSERIES 1-300: **PROCEDURES AND GUIDANCE**

UFC 1-300-08 Criteria for Transfer and Acceptance of DoD Real Property, with Change 2
http://wbdg.org/ccb/DOD/UFC/ufc_1_300_08.pdf

SERIES 1-900: **MISCELLANEOUS**

UFC 1-900-01 Selection of Methods for the Reduction, Reuse and Recycling of Demolition Waste
http://wbdg.org/ccb/DOD/UFC/ufc_1_900_01.pdf

SERIES 2 **MASTER PLANNING**

UFC 2-100-01 Installation Master Planning
http://www.wbdg.org/ccb/DOD/UFC/ufc_2_100_01.pdf

SERIES 3:	**DISCIPLINE-SPECIFIC CRITERIA**
SERIES 3-100:	**ARCHITECTURE AND INTERIOR DESIGN**
UFC 3-101-01	*Architecture, ,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_101_01.pdf
UFC 3-110-03	*Roofing,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_110_03.pdf
UFC 3-120-10	Interior Design, with Change 1 http://www.wbdg.org/ccb/DOD/UFC/ufc_3_120_10.pdf
SERIES 3-200:	**CIVIL/GEOTECHNICAL/LANDSCAPE ARCHITECTURE**
UFC 3-201-01	*Civil Engineering,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_201_01.pdf
UFC 3-210-10	*Low Impact Development,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_210_10.pdf
UFC 3-220-01	*Geotechnical Engineering Procedures for Foundation Design of Buildings and Structures,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_220_01.pdf
UFC 3-230-01	*Water Supply* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_230_01.pdf
UFC 3-240-01	*Wastewater Collection,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_240_01.pdf
SERIES 3-300:	**STRUCTURAL AND SEISMIC DESIGN**
UFC 3-301-01	*Structural Engineering,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_301_01.pdf
UFC 3-310-04	*Seismic Design for Buildings* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_310_04.pdf
UFC 3-310-08	*Non-Expeditionary Bridge Inspection, Maintenance and Repair, with Change 1* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_310_08.pdf
UFC 3-320-03A	*Structural Considerations for Metal Roofing, with Change 2* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_320_03a.pdf
UFC 3-320-06A	*Concrete Floor Slabs on Grade Subjected to Heavy Loads* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_320_06a.pdf
UFC 3-340-01	*Design and Analysis of Hardened Structures to Conventional Weapons Effects* (FOUO)
UFC 3-340-02	*Structures to Resist the Effects of Accidental Explosions* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_340_02.pdf
SERIES 3-400:	**MECHANICAL**
UFC 3-400-02	*Design: Engineering Weather Data,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_400_02.pdf
UFC 3-401-01	*Mechanical Engineering* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_401_01.pdf
UFC 3- 410-01	*Heating, Ventilating and Air Conditioning* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_410_01.pdf
UFC 3-420-01	*Plumbing System with Change 1-8s,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_420_01.pdf
SERIES 3-500:	**ELECTRICAL**
UFC 3-501-01	*Electrical Engineering with Change 2,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_501_01.pdf
UFC 3-520-01	*Interior Electrical Systems with Change 2,* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_520_01.pdf
UFC 3-530-01	*Design: Interior and Exterior Lighting and Controls with Change 2* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_530_01.pdf

UFC 3-550-01 *Exterior Electrical Power Distribution with Change 1*, http://www.wbdg.org/ccb/DOD/UFC/ufc_3_550_01.pdf

UFC 3-560-01 *Electrical Safety, O&M with Change 4*, http://www.wbdg.org/ccb/DOD/UFC/ufc_3_560_01.pdf

UFC 3-570-02A *Cathodic Protection*, http://www.wbdg.org/ccb/DOD/UFC/ufc_3_570_02a.pdf

UFC 3-580-01 *Telecommunications Building Cabling Systems Planning and Design*, http://www.wbdg.org/ccb/DOD/UFC/ufc_3_580_01.pdf

SERIES 3-600: **FIRE PROTECTION**

UFC 3-600-01 *Fire Protection Engineering for Facilities with Change 3* http://www.wbdg.org/ccb/DOD/UFC/ufc_3_600_01.pdf

SERIES 4: **MULTI-DISCIPLINARY AND FACILITY-SPECIFIC DESIGN**

UFC 4-010-01 *DoD Minimum Antiterrorism Standards for Buildings with Change 1*, http://www.wbdg.org/ccb/DOD/UFC/ufc_4_010_01.pdf

UFC 4-010-02 *DoD Minimum Antiterrorism Standoff Distances for Buildings* (FOUO)

UFC 4-021-01 *Design and O&M: Mass Notification Systems with Change 1*, http://www.wbdg.org/ccb/DOD/UFC/ufc_4_021_01.pdf

SERIES 4-500: **HOSPITAL AND MEDICAL FACILITIES**

UFC 4-510-01 Design: Medical Military Facilities, with Change 4 http://www.wbdg.org/ccb/DOD/UFC/ufc_4_510_01.pdf

SERIES 4-700: **HOUSING AND COMMUNITY FACILITIES**

UFC 4-740-06 Youth Centers http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_06.pdf

UFC 4-740-14 Child Development Centers http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_14.pdf

UNIFIED FACILITIES GUIDE SPECIFICATIONS

Available at http://www.wbdg.org/ccb/browse_cat.php?c=3

UNITED STATES ARMY CORPS OF ENGINEERS Engineering Manuals

USACE EM 385-1-1 *Safety – Safety and Health Requirements* http://140.194.76.129/publications/eng-manuals/index.html

NON-GOVERNMENT PUBLICATIONS

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) - 1801 Bell Drive, Reston, VA 20191-4400, http://www.asce.org

ASCE/SEI 31-03 *Seismic Evaluation of Existing Buildings*

ASCE/ SEI 41-06 *Seismic Rehabilitation of Existing Buildings*

AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR-CONDITIONING ENGINEERS (ASHRAE) - 1791 Tullie Circle, N.E. Atlanta, GA 30329 www.ashrae.org

ASHRAE 55 *Thermal Environmental Conditions for Human Occupancy*

ASHRAE 62 *Ventilation for Acceptable Indoor Air Quality*

ASHRAE 90.1 *Energy Efficient Design of New Buildings Except Low-Rise Residential Buildings*

ASHRAE 189.1	*Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings*

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) - 3 Park Avenue. New York, NY 10016-5990

ASME 17.1	*Safety Code for Elevators and Escalators* http://www.asme.org/products/courses/a17-1-safety-code-for-elevators-and-escalators

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) - 100 Barr Harbor Drive. West Conshohocken, PA 19428-2959

ASTM E 2030-09-A	*Standard Guide for Recommended Uses of Photoluminescent (Phosphorescent) Safety Markings* http://www.astm.org/Standards/E2030.htm

DEPARTMENT OF ENERGY - 1000 Independence Ave SW, Washington, DC 20585
www.energy.gov

Federal Energy Management Program	http://www1.eere.energy.gov/femp/

ENVIRONMENTAL PROTECTION AGENCY – 1200 Pennsylvania Ave NW, Washington, DC 20460
www.epa.gov

EPA Comprehensive Procurement Guidelines	www.epa.gov/epawaste/conserve/tools/cpg/index.htm
EPA Energy Star Program	www.energystar.gov
EPA Water Sense Program	www.epa.gov/watersense/

INTERNATIONAL CODE COUNCIL (ICC) – 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001**.**
http://www.iccsafe.org/Store/

International Building Code (IBC)
International Energy Conservation Code (IECC)
International Existing Building Code (IEBC)
International Fire Code (IFC)
International Fuel Gas Code (IFGC)
International Green Construction Code

NATIONAL FIRE PREVENTION ASSOCIATION (NFPA) – 1 Batterymarch Park Quincy, Massachusetts, 02169

NFPA 1	*Fire Code* www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1
NFPA 10	*Standard for Portable Fire Extinguishers* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=10
NFPA 17A	*Standard for Wet Chemical Extinguishing Systems* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=17A
NFPA 54	*National Fuel Gas Code* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=54
NFPA 58	*Liquefied Petroleum Gas Code* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=58
NFPA 70	*National Electrical Code®* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=70
NFPA 72	*National Fire Alarm and Signaling Code* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=72
NFPA 75	*Standard for Protection of Information Technology Equipment* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=75

NFPA 96	*Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=96
NFPA 101	*Life Safety Code®* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=101
NFPA 170	*Standard for Fire Safety and Emergency Symbols* http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=170

UNDERWRITERS LABORATORIES (UL) – 333 Pfingsten Road Northbrook, IL 60062-2096
http://www.ul.com/global/eng/pages/solutions/standards/

UL 924	Emergency Lighting and Power Equipment
UL 300	Fire Testing of Fire Extinguishing Systems for Protection of Restaurant Cooking Areas
UL 1994	Luminous Egress Path Marking Systems