



PDHonline Course G228 (2 PDH)

**Design for Department of Defense (DoD)
– General Building Requirements**

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Course Content

1. UNIFIED FACILITIES CRITERIA (UFC) - WHO, WHAT, WHERE, WHEN, & WHY?

The Unified Facilities Criteria (UFC) and Unified Facilities Guide Specifications (UFGS) were developed and currently exist through the authority of DoD Standard Practice MIL-STD-3007 / Standard Practice for Unified Facilities Criteria and Unified Facilities Guide Specifications. As excerpted from the Forward of the standard, “This standard establishes the procedures for the development and maintenance of the UFC and UFGS. Use these procedures for the planning, design, construction, operation and maintenance, sustainment, restoration, and modernization of facilities...” Therefore the purpose of the UFCs is to provide common planning, design, construction, operation & maintenance, sustainment, restoration, and modernization of facilities for Army, Navy, Air Force, DoD Defense Agencies, and DoD field activities. Part of the UFCs also provide for DoD design, construction, and operations & maintenance to align closer with existing commercial practices, codes, and standards. The Unified Facilities Guide Specifications (UFGS) are not covered within this course. The Unified Facilities Criteria (UFC) are important because they provide a means to streamline the criteria systems of DoD (a) by reducing the amount of duplication of information between and within the branches and agencies of the military, (b) by increasing adherence to commercial codes & standards, and (c) by creating efficient processes for developing & publishing further criteria. The applicability of the Unified Facilities Criteria (UFC) depends upon the particular UFC. In a general sense, UFCs are written to address one of the three following

topics – planning, design & construction, or operations & maintenance. Consequently each UFC will apply under its own context and its scope will likely encompass all new and renovated facilities for the Department of Defense.

2. UNIFIED FACILITIES CRITERIA (UFC), EXISTING BUILDING CODES, AND OTHER STANDARDS

As presented in the previous section, part of the goal of developing and utilizing the Unified Facilities Criteria (UFC) is to increase the adherence to and reliance upon commercial codes and standards. This greatly applies to design and construction and to a lesser degree – planning and operations & maintenance. In particular, the Unified Facilities Criteria (UFC) point mostly towards the International Code Council (ICC) and the National Fire Protection Association (NFPA) for codes and standards. Reference to a specific UFC will provide more details on the adoption of ICC and/or NFPA requirements. Considering how DoD is developing requirements to match commercial methods, the reader should cautiously note that it should not be assumed that ICC and/or NFPA requirements are in place where DoD requirements once applied. Each issue should be thoroughly researched to determine what does and does not apply.

3. UNIFIED FACILITIES CRITERIA (UFC) – SPECIAL CONSIDERATIONS

a. Other Government Criteria

There are additional government requirements for Department of Defense (DoD) projects aside from Military Standards Practices, Unified Facilities Criteria (UFC), and adopted commercial building codes & standards. These additional requirements are normally related to Administrative Branch directives, common law & regulations on expenditure of public funds, and inter-agency directives. In general terms, the reader should research applicable Public Laws, Presidential Executive Orders (E.O.), Code of Federal

Regulations (CFR), Department of Defense Instructions (DODI), and Department of Defense Directives (DODD). Military branch specific requirements may also apply: Navy – NAVFAC Criteria; Army – COE, Manuals, & Army Engineering Technical Letters; Air Force – AF Design Guides & AF Engineering Technical Letters. Other branch specific requirements may apply.

b. Anti-Terrorism Requirements

Anti-terrorism measures are critical to helping ensure that our soldiers, civilians, and contractors are kept as safe as possible. The Department of Defense (DoD) has developed and published specific anti-terrorism requirements in two separate UFCs. The two UFCs are UFC 4-010-01: DoD Minimum Anti-terrorism Standards for Buildings and UFC 4-010-02: DoD Minimum Standoff Distances for Buildings. These two UFCs should be referenced and applied whenever applicable.

c. Sustainability Requirements

The Federal Government and DoD are utilizing measures to design, construct, and maintain sustainable facilities. Federal Government and DoD sustainability requirements are partially detailed in Executive Order 13423 – Federal Leadership in High Performance & Sustainable Buildings and the Memorandum of Understanding for High Performance & Sustainable Buildings. Further DoD requirements are outlined in UFC 4-030-01: Sustainable Development.

4. UFC 1-200-01: GENERAL BUILDING REQUIREMENTS

a. PRELIMINARY ISSUES

This course material is designed to be read and studied as a parallel document to UFC 1-200-01: General Building Requirements. When reading and studying, it is intended that both documents should be used simultaneously.

UFCs are considered to be living documents (being continually revised). These UFCs are documents that are subject to continual review and update. Representative teams throughout DoD are responsible for the creation, review, update, and publishing of the UFCs. All work of this type is done in accordance with UFC 1-300-01: Criteria Format Standard. The official repository of all UFC documents is: <http://dod.wbdg.org> (public domain address is <http://www.wbdg.org>).

b. INTRODUCTION

UFC 1-200-01: General Building Requirements is the central point of reference for determining the correct building code and standard for use on DoD design and construction projects. This UFC points the direction to other design and construction UFCs, codes, and standards. Design-bid-build and design-build projects are to be delivered under the direction and guidance of this UFC. UFC 1-200-01: General Building Requirements adopts the 2006 International Building Code as the building code for the Department of Defense (with exceptions as noted). The UFC does make three notable substitutions – 1) all reference to the International Electric Code is to be considered a reference to NEC/NFPA 70; 2) all reference to the International Fuel Gas Code is to be considered a reference to NFPA 54 and NFPA 58; 3) all reference to the International Fire Code is to be considered a reference to UFC 3-600-01: Fire Protection Engineering for Facilities. There are other criteria that apply to UFCs in general are they were presented previously in Section 3 – Special Considerations.

c. MODIFICATION TO THE INTERNATIONAL BUILDING CODE (IBC) 2006

Because this document is intended to be studied in conjunction with UFC 1-200-01: General Building Requirements only the highlights are presented herein.

- Building construction, construction materials, life safety, and fire protection are jointly covered through reference to IBC, UFC 3-600-01: Fire Protection Engineering for Facilities, and NFPA 101: Life Safety Code.
- Accessibility requirements are derived from the Uniform Federal Accessibility Standards (UFAS) and ADA.
- Energy efficiency and utilization requirements are derived from UFC 3-400-01: Energy Conservation and Energy Policy Act of 2005 (EPAAct 2005).
- Mechanical Systems: Navy & Marine facility requirements are derived from the International Mechanical Code 2006 and UFC 3-410-02: Heating, Ventilating, Air Conditioning, and Dehumidifying Systems. Army and Air Force facility requirements are derived from UFC 3-410-01: Heating, Ventilating, and Air Conditioning.
- Plumbing requirements are derived from UFC 3-420-01: Plumbing Systems and the International Plumbing Code 2006.
- All IBC 2006 Appendices are omitted.

5. END OF DOCUMENT