



# ***DoD Sustainability and Energy Requirements Overview***



## **IMPORTANT:**

**When UFC 1-200-02 HIGH PERFORMANCE AND SUSTAINABLE BUILDING REQUIREMENTS revision is published (FY25±), this slide deck will be invalid. Please discard at that time!**

**Tri-Service Criteria Sustainable  
Functional Working Group**

# *Items of Note*



- The following slides contain content applicable to all DoD projects, for both Contractors and Government employees.
- For policies, criteria, Service-specific requirements, third party certification (TPC) links and training, refer to:

<https://www.wbdg.org/ffc/dod/tri-services-sustainability-program>

# Sections



- **Overview of Sustainability and Energy Requirements**
- **Federal Guiding Principles and UFC 1-200-02**
  - Guiding Principles and supporting UFC paragraphs are highlighted in green*
  - Deliverables or actions are highlighted in red*
  - Importance of the metric is highlighted in dark red*
  - **Conserving Resources**
  - **Protecting Humans**
  - **Reduce, Reuse, Recycle**
- **Specifying and Executing Sustainability**
- **Back-up: Criteria Program Overview**

# Priorities: Unified Facilities Criteria (UFC)



- Know these documents, applicable to all projects:
  - [UFC 1-200-01 DoD Building Code](#)
    - As authorized by MIL-STD-3007G. IBC-based
  - [UFC 1-200-02 High Performance and Sustainable Buildings Requirements](#)
    - Federal and DoD minimum sustainability requirements
  - [UFC 1-300-02 Unified Facilities Guide Specification Format Standard](#)
    - How to format specs in required SpecsIntact format
  - [UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings](#)
    - DoD minimum requirements
  - [UFC 3-600-01 Fire Protection](#)
    - When to use IBC and when to use NFPA 101
  - Discipline specific criteria as appropriate to projects

# DoD Criteria

## <https://www.wbdg.org/dod>



**Department Of Defense**

**UNIFIED FACILITIES CRITERIA PROGRAM**

The Department of Defense (DoD) initiated the Unified Facilities Criteria Program to unify all technical criteria (UFCs) and guide specifications (UFGs) pertaining to planning, design, construction, and operation and maintenance of real property facilities. The program streamlines the military criteria system by eliminating duplication of information, increasing reliance on preestablished standards, and creating a more efficient criteria development and publishing process. Administered by the United States Army Corps of Engineers (USACE), Naval Facilities Engineering Systems Command (NAVFAC), and the Air Force Civil Engineer Center (AFCEC), the UFC Program organizes numerous working groups with one or more experts from each participating organization to develop the technical publications. Further information on the UFC program can be found in MIL-STD-3007 and in the UFC program reports. From the last fiscal year, UFC reports 1 and UFC 1-300-03 also provide information on developing UFC documents. [Read More](#)

**Related Links**

- Non-Government Standards (Limited Access)
- Military Standards: ASSET database
- Construction Prevention & Control (CPC) Sources
- TriService Building Technology (Vander Panel)
- TriService Sustainability Program

Click an agency logo below for more information and criteria:

**US Army Corps of Engineers**

**NAVFAC**

**AFCEC**

**SPECIFICATIONS & CRITERIA**

Click on the 'Category' heading to sort by ascending or descending order:

CATEGORY	# DOCS
Unified Facilities Guide Specifications (UFGS)	1,400
Unified Facilities Criteria (UFC)	889
Unified Master Reference	1
Engineering and Construction Manuals (ECM)	488
DoD Unified Design Guidelines	4
DoD Supplemental Technical Criteria	80
DoD Manuals	3
DoD Manuals	10
DoD Unit Cost/Line Item Factors and Facilities Pricing Guides	1
Washington Headquarters Services Building Guide	1
NAVFAC Standards	0
Military Health System (JWHC) DoD Base Planning Criteria for Health Facilities	61
Military Health System (JWHC) Temp Camps	104
MILITARY-100 Military Medical and Dental Facilities	1
Reserve and Military Specifications and Standards	0

**Participating Agencies**

Logos for: US Army Corps of Engineers, NAVFAC, AFCEC, GSA, NASA, and others.

**UFC  
UFGS**

**DoD  
Page  
Link**

# Overview of Sustainability Requirements

<https://www.wbdg.org/ffc/dod/tri-services-sustainability-program>

# Policy/Criteria Requirements



- **UFC 1-200-02** “High Performance and Sustainable Building Requirements” (HPSB), Revised December 2020, CH01 1/3/22
- **UFGS 01 33 29** “Sustainability Requirements and Reporting”, Revised February 2021
- **High Performance and Sustainable Building (HPSB) Checklists**
  - <https://www.wbdg.org/dod/sustainability/tracking-reporting>
- **Low Impact Development Checklists**
  - <https://www.wbdg.org/dod/sustainability/tracking-reporting>
- **Component Policy**
  - <https://www.wbdg.org/dod/sustainability/policy-mandates>

# UFC 1-200-02: Applicability



- **UFC 1-200-02 IS MANDATORY FOR ALL PROJECTS**
  - Follow criteria requirements just like any other UFC
- **UFC 1-200-02 COVERS RENOVATION REQUIREMENTS, TOO**
  - Comply within scope
- **Application of Third-Party Certification (TPC) is ancillary and in addition to meeting all the UFC 1-200-02 requirements**
  - Not either/or, do both when applicable
- **IMPORTANT NOTE: PMs/DMs do not have the authority to unilaterally waive UFC requirements (or cut ANY 1391 line item). Seek approval to change scope or exempt/waive criteria through chain-of-command, by using the “UFC and FC WAIVER and Exemption Process” found in MIL-Standard 3007**  
**<https://www.wbdg.org/dod/fedmil/mil-std-3007>**



# Third Party Certifications



- **Third party certification is not equivalent to UFC 1-200-02 compliance, and does not replace the requirement to comply, complete and record with HPSB Checklist.**
- **Acceptable Third-Party Certification (TPC):**

## **Air Force:**

- **USGBC Guiding Principles Assessment (DOD version)**
- **GBI Guiding Principles Compliance (DOD Version)**

## **USACE:**

- **USGBC LEED (UFC Medical – LEED for Healthcare)**

## **NAVFAC:**

- **USGBC LEED (UFC Medical – LEED for Healthcare)**
- **USGBC Guiding Principles Assessment (DOD version)**
- **GBI Green Globes**
- **GBI Guiding Principles Compliance (DOD Version)**

# Support of Policy



Completed **HPSB Checklist** = info for Service-Specific requirements

Completed Service-Specific requirements = **UFC 1-200-02** requirements

**UFC 1-200-02** = Federal Guiding Principles Compliance (**GPC**)  
(per DoD “Sustainable Buildings Policy”, Nov. 2013)

# **GP → Policies → UFC → UFGS → HPSB Checklist**



- **Guiding Principles (GP)** are the governing set of goals, derived from Federal laws and codes, including reporting of compliance.
- – **DOD “Sustainable Building Policy”** - Agency and Service policy statements in support of Federal GP Requirements.
- • **Unified Facilities Criteria (UFC) 1-200-02** contain the required criteria to meet the sustainability policy statements.
- – **Unified Facilities Guide Specification (UFGS) 01 33 29** contain the required actions to ensure sustainability criteria is achieved in the built product.
- » **High Performance and Sustainable Building (HPSB) Checklist** is the tally required for reporting Federal compliance in the built product.

# **Federal Guiding Principles and UFC 1-200-02**

# Building Life Cycle Cost program



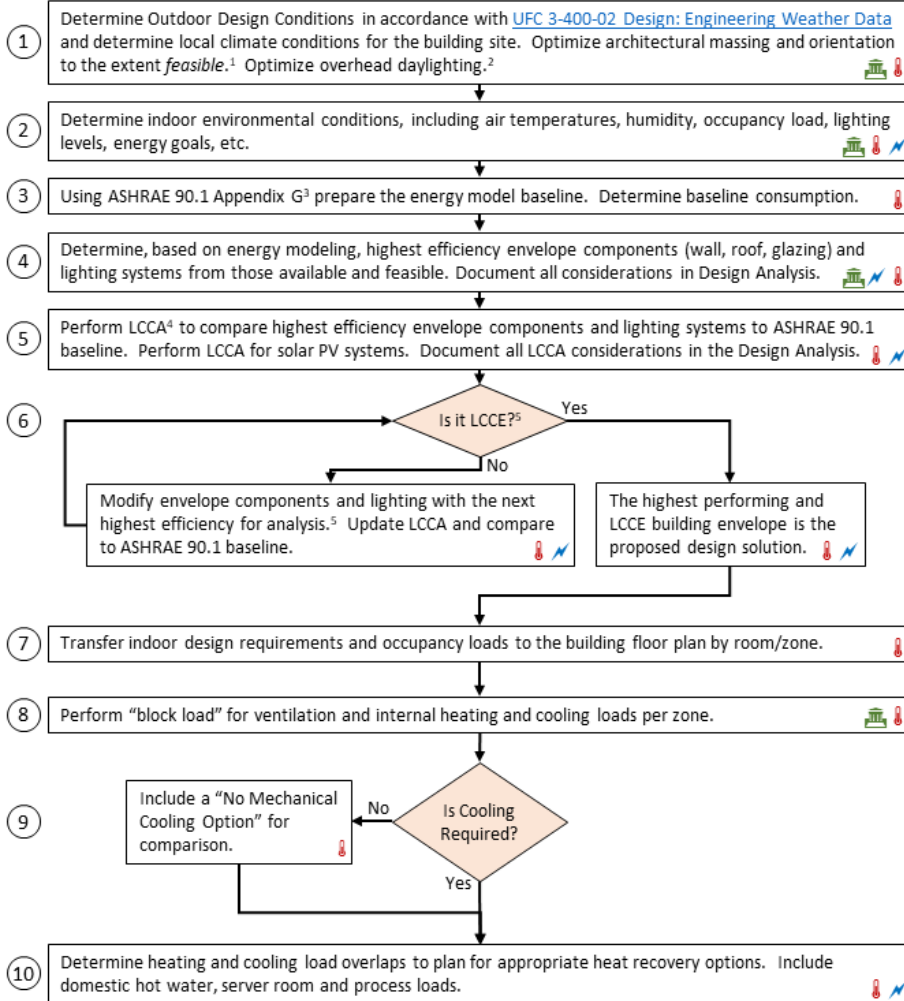
- National Institute of Standards and Technology (NIST) developed Handbook 135 and BLCC
- BLCC performs economic analyses by evaluating the relative cost effectiveness of alternative buildings and building-related systems or components
  - Typically used to evaluate alternative designs that have higher initial costs but lower operating costs
  - Best for energy and water conservation, and renewable energy
  - Compares two or more alternative designs for lowest LCC
  - Also computes net savings, savings-to-investment ratio, adjusted internal rate of return, and years to payback
  - Free download with registration

# Mandatory LCCA Process Requirements

## UFC 1-200-02 Appendix A Energy Optimization and LCCA Process Chart

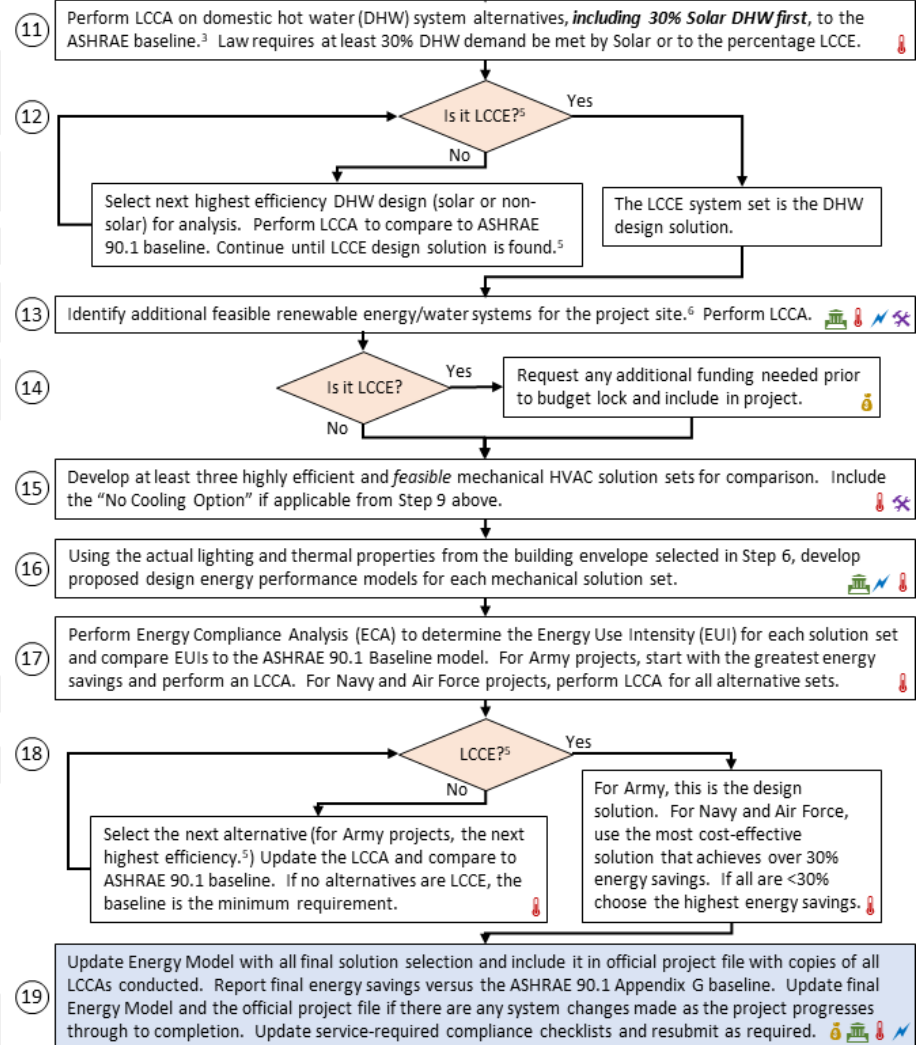
### Lead(s):

Architecture Mechanical Project Manager Electrical User/Owner (O&M)



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# *Guiding Principles with Subsets*



## **I. Employ Integrated Design Principles**

**Integrated Design / Commissioning**

## **II. Optimize Energy Performance**

**Energy Efficiency (NC, Reno, energy efficient products) / Renewable Energy / Metering**

## **III. Protect and Conserve Water**

**Indoor Water (ASRHAЕ; water efficient products) / Outdoor Water (metering, landscaping, reduce irrigation water, LID) / Alternate Water**

## **IV. Enhance Indoor Environmental Quality**

**Ventilation and Thermal Control / Daylighting / IAQ / Occupant Health and Wellness**

## **V. Reduce the Environmental Impact of Materials**

**Environmentally Preferable Products / Waste and Material Management**

## **VI. Assess and Consider Risk and Building Resilience**

# *Employ Integrated Design Principles*



- **Guiding Principle** requirement to **develop goals** while considering design impact factors and all stages of system life-cycle.
- **UFC 1-200-02:**
  - **IgCC F101.1.1 (F1.1.1) Charrette Process** determines how to address and prioritize goals, such as:
    - Building configuration
    - Systems integration
    - renewable energy sources
    - Indoor air quality
    - Non-potable water use
    - Health and wellness improvements
    - Government-identified risk factors
    - Life cycle cost effectiveness



# Commissioning



- **Guiding Principles** require commissioning by an independent agent, to optimize and verify performance.
- **UFC 1-200-02:**
  - **IgCC 1001.3.1.2 (10.3.1.2) Building Project Commissioning**
  - Use UFGS 01 91 00.15 10 (Army-executed) or UFGS 01 91 00.15 20 (Navy-executed) Total Building Commissioning
  - Include an experienced commissioning provider, who should be independent of the project design, construction, and operations team
  - All design decisions, changes and design submittals must support the DD1391 or Basis of Design scope.
  - Construction submittals, modifications, systems' testing, and reports must also support DD1391 or Basis of Design scope

**IT'S ALL ABOUT DESIGN INTENT!**



# CONSERVING RESOURCES

# Energy Efficiency



- **Guiding Principle** (and statute) requirement is to meet baseline **ASHRAE 90.1**, plus 30% better, where LCCE.
- **UFC 1-200-02:**
  - **Commercial and Multi-Family High-Rise Residential** - **ASHRAE 90.1** plus 30% better, or highest level that is **LCCE**.
  - **Low-rise Residential** – **IECC** plus 30% better, or highest level that is **LCCE**
  - **Renovation**
    - Measured FY2003 baseline plus 30% better or
    - Measured FY2015 baseline plus 20% better or
    - Modeled ASHRAE 90.1 baseline plus 30% better

When 30% target is missed, modify design to achieve highest energy efficiency that is LCCE

# Renewable Energy Systems



- **Guiding Principle** requirement is for renewable energy on-site where appropriate and LCCE.
- **UFC 1-200-02:**
  - IgCC 701.4.1.1 (7.4.1.1) On-Site Renewable Energy Systems
  - UFC 3-440-01 Renewable Energy Systems – Facility
  - UFC 3-540-08 Utility-Scale Renewable Energy Systems
- Installation-wide solution, on-site when **LCCE**.



# Solar Domestic Hot Water (SDHW)

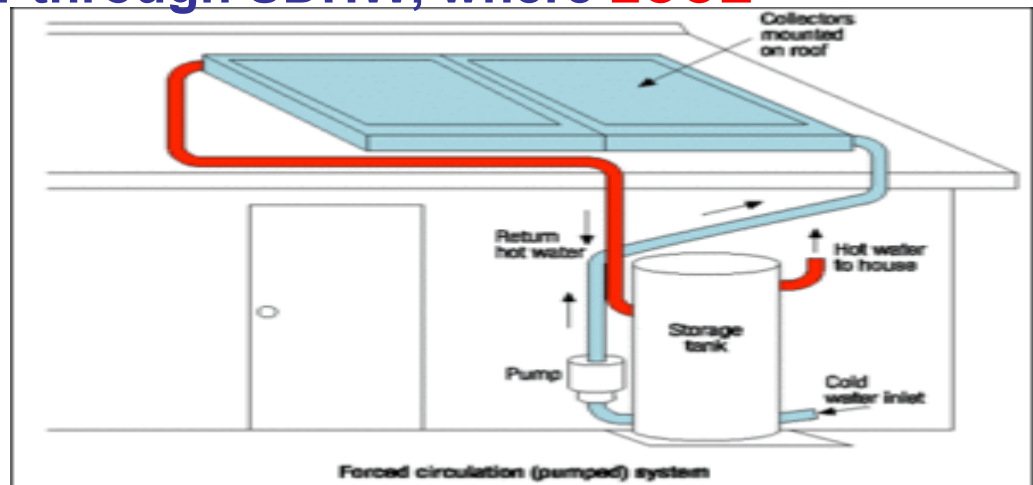
- **Statute** requirement is cited in Energy Independence and Security Act (EISA) 2007 Section 523, requiring **30% of annual hot water through SDHW, where LCCE**

- **UFC 1-200-02:**

- 30% of annual hot water through SDHW, where **LCCE**

- DOE “Savings-to-Investment Ratio Solar Water Heating”

- <http://www.wbdg.org/resources/solar-water-heating>



When 30% target is missed, modify design to achieve highest energy efficiency that is LCCE

# Metering



- **Guiding Principle** requirement is to meter all energy sources for the building
- **UFC 1-200-02:**
  - Compliance with **DOD Utilities Meter Policy**
  - Advanced metering may already be in place for existing buildings



# Indoor Water Use



- **Guiding Principle requirement is to meet IgCC 601.3.2 (6.3.2) Building Water Use Reduction and 601.3.3 (6.4.3) Special Water Features.**
- **UFC 1-200-02:**
  - **IgCC 601.3.2 (6.3.2) Building Water Use Reduction**
    - **Incorporates WaterSense-labeled fixtures in UFGSs**
    - **Replacement Water Closets must have flush value of up to 1.6 GPF**
  - **IgCC 601.3.3 (6.4.3) Special Water Features**
- **Metering compliant with DOD Utilities Meter Policy**

# Outdoor Water Use



- **Guiding Principle** requirement is to reduce potable water use by 50% or more for landscape water below conventional practices; water efficient landscapes; metering of irrigation systems 25,000 SF or more.
- **UFC 1-200-02:**
  - **No potable water use** for permanent landscape irrigation, but can be use potable water for plant establishment (per DoD policy)
  - **Metering** of existing potable water irrigation systems greater than 25,000 SF, compliant with **DOD Utilities Meter Policy**



# Outdoor Water Use cont.



- **Guiding Principle** requirement is to consider **alternative sources**, where **LCCE** and permitted by local laws and regs.
- **UFC 1-200-02:**
  - Where **LCCE** and permitted, use alternative water sources.
  - Requires pro-active approach and documented **LCCE** consideration.
  - **Metering** compliant with **DOD Utilities Meter Policy**

## BASE DESIGN DECISIONS ON LCCE

# Outdoor Water Use cont.



- **Guiding Principle** requirement is to meet or exceed **EISA 2007 sec 438** stormwater management .
- **UFC 1-200-02:**
  - **UFC 3-210-10 Low Impact Development**

**BASE DESIGN DECISIONS  
ON STATUTE AND POLICY**



# PROTECTING HUMANS

# Ventilation and Thermal Comfort



- **Guiding Principle** requirement is to meet ASHRAE 55 for thermal comfort and ASHRAE 62.1 (commercial) or 62.2 (low-rise residential) for ventilation
- **UFC 1-200-02:**
  - Meet **UFC 3-410-01**
  - Exception to use UFC 4-510-01 Military Medical Facilities
    - Maximum velocity requirements; merv filters; ductwork materials; no liners; maintenance room equipment clearances; outside air calculations; pressurization; exhaust requirements.
    - Specific building locations that require daylighting and sensors
    - Requires LEED for Healthcare (with a few exceptions)

# Daylighting



- **Guiding Principle** requirement is to **maximize opportunities** for daylighting and sensors.
- **UFC 1-200-02:**
  - **IgCC 801.4.1.2 (8.4.1.2) Minimum Sidelighting Effective Aperture for Office Spaces and Classrooms**
  - Applies to daylighting where feasible in employee work areas, such as classrooms and offices, break rooms and other gathering areas on exterior walls to maximize daylighting.
  - **UFC 3-530-01 Lighting controls (both daylighting and artificial)**
  - For Medical Treatment Facilities, refer to UFC 4-510-01 Medical Military Facilities for additional daylighting criteria.

# Indoor Air Quality



- **Guiding Principle** says to consider moisture control, low-emitting materials, indoor air quality during construction, no smoking, pest management.
- **UFC 1-200-02:**
  - **Moisture control:**
    - **IgCC 1001.3.1.6 (10.3.1.5) Moisture Control**  
and
    - **UFC 3-410-01 Ch 3 (ventilation)**
    - **UFC 3-101-01 Ch 3 (exterior wall air and moisture control barrier)**
  - **Reduced VOC:**
    - **IgCC 801.4.2 (8.4.2) Materials**

# Control IAQ in Specifications



- UFGS 01 33 29 Table 3-1 VOC requirements
- Many materials requirements in **template UFGSs** now include specific certifications or equivalents
  - Greenguard
  - SCS
  - Equivalent validation of **IgCC** requirements
    - California Section 01350
    - California Air Resources Board (CARB)
    - SCQALMD Rule 1113
    - SCQALMD Rule 1168
    - Green Seal Standard GS-11
    - Green Seal Standard GS-36
    - BIFMA M7.1 (X7.1 or e3 sec 7.6.2)

# REDUCE, REUSE, RECYCLE



# *Reduce Environmental Impact of Materials*



- **Guiding Principle** requirement is to
  - Use **recycled-content products** that meets RCRA Section 6002
  - Use **biologically-based products** that meet FSRIA Section 9002
  - Avoid **ozone-depleting compounds**
- **UFC 1-200-02: use products that conform to**
  - EPA's Comprehensive Procurement Guidelines (CPG)
  - USDA's BioPreferred
  - Federal Green Procurement Compilation
  - EPA's Significant New Alternatives Policy (SNAP) Program for refrigerants
- **Include in UFGSs**

# Waste and Materials Management



- **Guiding Principle** requirement is to
  - provide recycled services for building occupants and
  - divert 50% of construction and demolition waste from landfills
- **UFC 1-200-02:**
  - **Divert 60%** of construction and demolition waste from landfills



- **Verify availability of recycling centers**
- **Specify diversion**



# Address



- **Guiding Principle** requirement is to “**Assess potential impacts and vulnerabilities, from acute weather events...**”
- **UFC 1-200-02:**
  - Combines four separate GP into one [DOD provided] requirement to **address Government-identified risks.**
  - Regional, installation, and site risk identification must be established at **project inception**. Identify weather, terror, emergency access, operational timeline in crisis, mission essential requirements. What is to be protected, people or buildings?
  - **Government-provided** mitigation factors affect identification of both mitigation scope and customer scope, as well as project location, function, and operation.

## CONSIDER EARLY!

# Compliance



- All building design and construction
- It is assumed new work can comply with all requirements
- Missed targets require one of the following **justifications**:
  - Mission restriction or exclusion (24/7 operation; SCIF)
  - LCCE restricts or excludes full compliance
  - Regional restriction or exclusion (local O&M restrictions; no local recycling)
  - Locale restriction or exclusion (no steam to meter; building location restricts daylighting)
- Renovation must comply with requirements that are reflected by project scope. Examples:
  - Renovation that does not include water fixtures does not require compliance with “Indoor Water Use”.
  - Full compliance with optimized energy metrics is not expected for an HVAC replacement in an existing building renovation that does not include exterior wall, openings, and roof remediation. (Although ASHRAE 90.1 compliance is required.)

# Specifying and Executing Sustainability

# Tracking Sustainability Requirements



- Tracking and reporting is required of buildings that meet the requirements of UFC 1-200-02, per paragraph “Compliance Documentation.” Provide for applicable projects:
  - **Sustainability chapter** - in the Basis of Design, Scope of Work, or Design Analysis.
  - **UFGS 01 33 29 SUSTAINABILITY REQUIREMENTS AND REPORTING** with attached, completed
    - **HPSB Checklist** for each building
    - **TPC checklist** for each applicable building.
  - **“S” submittals** - required specification submittals that proves a particular sustainability requirement has been met by the post-award construction contractor. “S” submittals appear on the Submittal Register.
  - **Sustainability eNotebook** - electronic organization system that includes all post-award documentation for sustainability compliance.

# All MCON-level Projects – UFGS + Checklist(s)



**ATTACHMENT 1**  
**EDITED**  
**UFGS 01 33 29**

**+**
**COMPELETED** Service  
**HPSB CHECKLIST**
**+**
**ATTACHMENT 2**  
**COMPLETED** TPC  
**CHECKLIST**

**(do not include project cost!)**

\*\*\*\*\*  
 USACE / NAVFAC / AFMCC / NAVA  
 SPS0-01 33 29 (February 2021)  
 Preparing Activity: NAVFAC  
 SPS0-01 33 29 (February 2017)  
 SPS0-01 33 29-01 20 (March 2019)  
 UNIFIED FACILITIES GUIDE SPECIFICATIONS  
 Reference: see in agreement with USACE dated January 2021  
 \*\*\*\*\*  
 SECTION 01 33 29  
 SUSTAINABILITY REQUIREMENTS AND REPORTING  
 02/21  
 \*\*\*\*\*  
 NOTE: This guide specification covers the requirements for providing sustainability documentation for Guiding Principle Validation (GPV) and Third Party Certification (TPC). GPV is equivalent to meeting the requirements of SPC 1-200-02 "RISK PERFORMANCE AND SUSTAINABLE BUILDING REQUIREMENTS." All projects must meet the requirements of SPC 1-200-02.  
 This guide specification includes tailoring for both DESIGN-BUILD and DESIGN-BID-BUILD.  
 This guide specification includes tailoring for ARMY. Descend the ARMY tailoring option for Navy-selected projects.  
 Use a properly edited version of this guide specification for projects that contain one or more buildings that meet one of the following:  
 a) For Army and Navy, new buildings or stand-alone additions greater than or equal to 10,000 SF, for Air Force, all new buildings or stand-alone additions.  
 b) Comprehensive replacement in an existing building that is greater than or equal to 10,000 SF, with total cost (includes new work, restoration, operations and maintenance, equipment, and modernization associated with and existing building restoration) greater than \$1M and 10 percent or more Delivered Replacement Cost (DRC).  
 Use the SPSB Checklist for the Service who will maintain the building used in their Best Property Record. Complete an SPSB Checklist for each applicable building in the project. Before attaching to this specification, Checklists must be completely filled out before being used to a solicitation. Check with the user Command for solicitation.  
 \*\*\*\*\*  
 SECTION 01 33 29 Page 3

**NAVFAC HIGH PERFORMANCE AND SUSTAINABLE BUILDING CHECKLIST – GOALS**

**PROJECT INFORMATION**

Work Order No.:  FY:  MCON P No. / Customer Reference No.:   
 Project Title:   
 Location UIC Name:   
 NAVFAC Project Manager:  Category Code:  Project Design Level:   
 Facility Area:  UIC:  AE Firm Sustainability Coordinator:  Facility #:   
 AE Contract # & T.O.:   
 AE Firm Name:   
 Project Phase: ☐ Design Start / PCA ☐ Solicitation Documents Complete ☐ Award Date (FY):  BOD (FY):   
 Construction Contract:

**SUSTAINABILITY DATA - GUIDING PRINCIPLES FOR SUSTAINABLE DEVELOPMENT**  
 Use this form to collect Design Goals information to be recorded on the Sustainable and Energy Tab in eProjects

**NOTE:** 1. Mark "N/A" only when at least one of the listed justifications is applicable, and mark those justifications. Otherwise, mark "Yes."  
 2. If project is for more than one building for which tracking is required, complete a separate form for each building.

**PRELIMINARY PROJECT INFORMATION**

1. How many buildings are included in the project?   
 2. Does at least one building meet one of the following: 1) new construction (new building or addition to existing); 2) Renovation in an existing building with construction cost greater than \$1M? ☐ Yes ☐ No  
 3. Identify the building to be tracked in this tab:

**DESIGN DEVELOPMENT - DOCUMENTATION OF COMPLIANCE WITH GUIDING PRINCIPLES**

I. Employ Integrated Design Principles

1. Integrated Design  
 Goals: In Compliance ☐ Yes ☐ N/A  
 N/A due to:   
☐ Mission production ☐ Building/late issue  
☐ Not LOCE ☐ Renovation only not part of scope  
☐ Installation/region issue

2. Collaboration  
 Goals: In Compliance ☐ Yes ☐ N/A  
 N/A due to:   
☐ Mission production ☐ Building/late issue  
☐ Not LOCE ☐ Renovation only not part of scope  
☐ Installation/region issue

(i) Systems commissioned:

II. Optimize Energy Performance

3. Energy Efficiency  
 Goals: In Compliance ☐ Yes ☐ N/A  
 N/A due to:   
☐ Mission production ☐ Building/late issue  
☐ Not LOCE ☐ Renovation only not part of scope  
☐ Installation/region issue

(i) Energy Savings Setpoint Baseline %:

**LEED v4.1 BD+C: Healthcare Project Checklist**

**1. Integrative Project Planning and Design** Required 1  
 Integrative Process ☐

**2. Location and Transportation** 9  
 LEED for High-Rise Development Location ☐ 5  
 Transit-Related Pedestrian ☐ 1  
 High Priority Site and Available Development ☐ 2  
 Surrounding Density and Diverse Uses ☐ 1  
 Access to Quality Transit ☐ 2  
 Bicycle Facilities ☐ 1  
 Reduced Parking Footprint ☐ 1  
 Electric Vehicles ☐ 1

**3. Sustainable Sites** 9  
 Construction Activity Pollution Prevention ☐ Required  
 Environmental Site Assessment ☐ Required  
 Site Assessment ☐ 1  
 Protect or Restore Habitat ☐ 1  
 Open Space ☐ 1  
 Resource Management ☐ 2  
 Heat Island Reduction ☐ 1  
 Light Pollution Reduction ☐ 1  
 Pervious Pavement ☐ 1  
 Diverse Exterior Spaces ☐ 1

**4. Water Efficiency** 11  
 Outdoor Water Use Reduction ☐ Required  
 Indoor Water Use Reduction ☐ Required  
 Building-Level Water Metering ☐ Required  
 Outdoor Water Use Reduction ☐ 1  
 Indoor Water Use Reduction ☐ 2  
 Optimize Process Water Use ☐ 2  
 Water Metering ☐ 1

**5. Energy and Atmosphere** 35  
 Fundamental Commissioning and Verification ☐ Required  
 Minimum Energy Performance ☐ Required  
 Building-Level Energy Metering ☐ Required  
 Fundamental Refrigerant Management ☐ Required  
 Enhanced Commissioning ☐ 1  
 Optimize Energy Performance ☐ 20  
 Advanced Energy Metering ☐ 1  
 Grid Interconnection ☐ 2  
 Renewable Energy ☐ 5  
 Enhanced Refrigerant Management ☐ 1

# **“S” Submittals**



- **“S” Submittal:**
  - Required submittal that proves a particular sustainability requirement has been met
  - Tie back to UFGS 01 33 29
  - Appears on Submittal Register
  - Include TPC requirements
- Many of the UFGS templates contain the standard language and tagging for the “S” submittals. Edit for additional “S” submittals as needed.
- SRM projects typically do not include UFGS 01 33 29 and delete “S” submittal requirements. However, keep the minimum sustainability thresholds in each UFGS Master.



# *“S” Submittals – Example for SpecsIntact Editors*



## 1.4 Submittal

### SD-03 Product Data

→ Carpet, G

Recycled content of carpet, S

#### 2.2.2 <SUB>Carpet<SUB>

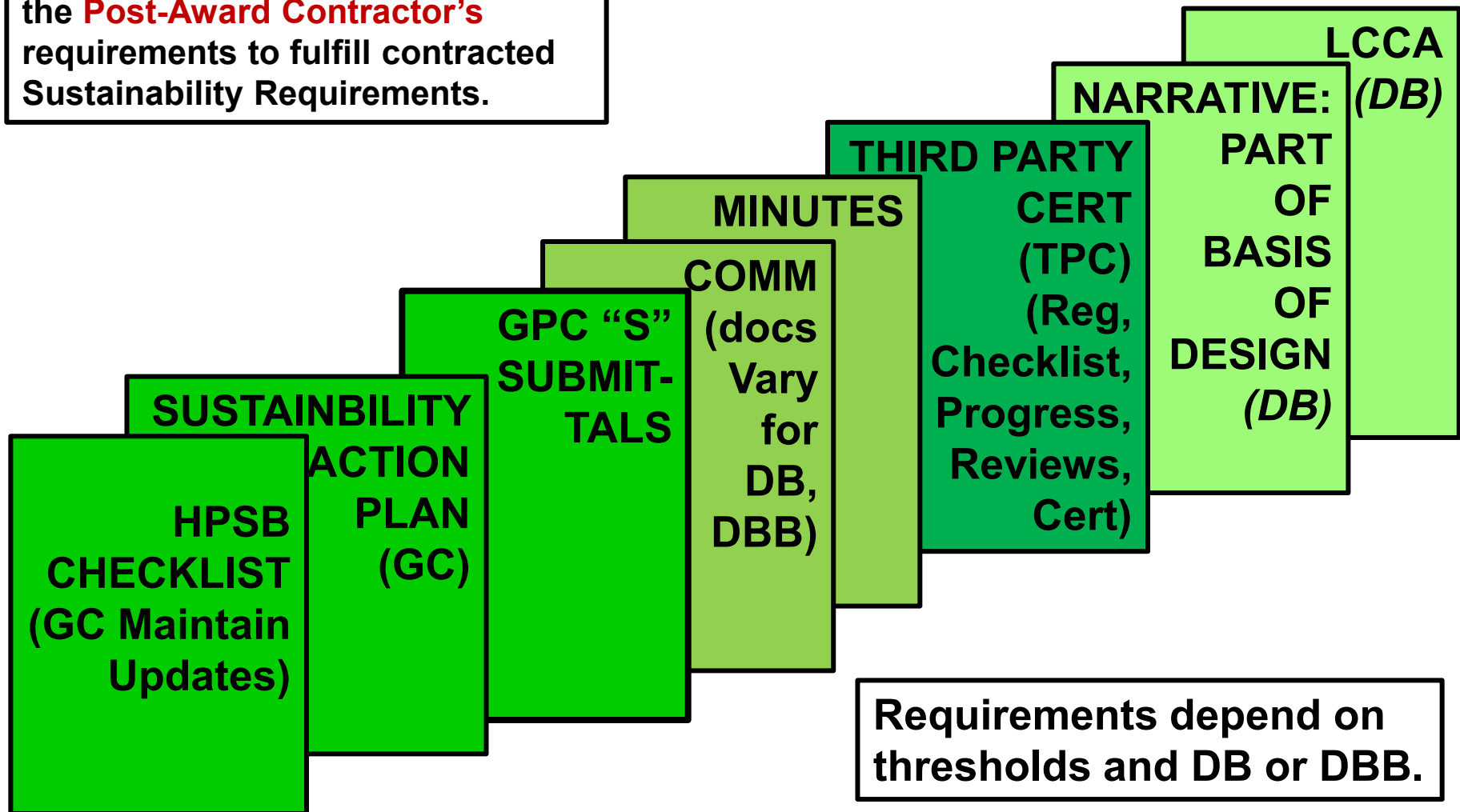
“Provide carpet..color...loop...yarn wt...20 percent recycled content yarn and 100 percent recycled backing...Provide proof of <SUB>recycled content of carpet<SUB>.”

- Because this is all part of the entire product data paragraph, the recycled content will be part of the SD-03 Product Data submittal and separated for the “S” submittal.

# Sustainability eNotebook



This is an **electronic** file, capturing the **Post-Award Contractor's** requirements to fulfill contracted Sustainability Requirements.



Requirements depend on thresholds and DB or DBB.

# Prepare the Sustainability eNotebook



## Organize the documentation:

1. Set Up electronic filing system
2. Copy Guiding Principles numbering system and include sub-topics (ex: label each applicable UFGS that requires one or more “S” submittals)
3. Collect documentation as you receive it, label each file, and store it in the file structure
4. Create tracking spreadsheet and update continuously – include tabs for each section of the Guiding Principles
5. Set up submittal document with bookmarked title page, table or content (should match the electronic filing system), Guiding Principles section title pages, and sub-pages
6. **DO NOT PRINT!** This is intentionally an ELECTRONIC file!
7. For more details, refer to Third Party Certification programs instructions, webinars, and training.

# Thank you!

**AND REMEMBER:**

**When UFC 1-200-02 HIGH  
PERFORMANCE AND SUSTAINABLE  
BUILDING REQUIREMENTS revision is  
published (FY25±), this slide deck will  
be invalid. Please discard at that time!**

# **Back up: Criteria Program Overview**

# Criteria Program

## Background and Authorities



**1988 Public Building Act**

**1995 PL 104-113 National Tech Transfer and Advancement Act**

**1998 OMB Cir 119** Fed Participation in the Development and Use of Voluntary Consensus Stds

**10 U.S.C. §2451 / 2452 / 2457**

**1997 House Report 105-247**

**1998 MILCON Appropriations Act**

Federal agencies shall maximize use of consensus standards and codes

DoD shall standardize and unify [facilities] criteria

### IMPLEMENTATION

**DoDI 4120.24** Defense Standardization Program

**DoDD 4270.5** Military Construction

**DoD Installations Policy Board Establishes Tri Service Engineering Senior Executive Panel (ESEP) to Oversee Program (1999)**

**MIL STANDARD 3007**  
**DoD Unified Facilities Criteria (UFC)**  
**and Guide Specifications (UFGS)**  
**Program**

# Criteria Program Organization



Office of Sec of Defense (OSD)

Army

Navy

Air Force

## Engineering Senior Executive Panel (ESEP)

Dep Assist Sec of Def (Construction)

Chief, Engineering & Construction  
USACE

Chief Engineer  
NAVFAC

Deputy Director of Civil Engineers  
(HAF/A4C)  
HQ USAF

### PROGRAM GUIDANCE, RESOURCING, AND CRITERIA APPROVAL

## Coordinating Panel (CP)

ODASD(Con)

USACE

NAVFAC

AFCEC

### PROGRAM MANAGEMENT

## Working Groups (WG)

Cost / Comp Plan /  
Contingency Eng /  
Medical / Security /  
**Sustainability** /  
Renewable Energy  
Gen / Utility Control

Architecture / Aviation / Civil / Comprehensive Planning /  
Construction / Contingency Engineering / Cost Engineering / Design-Build / Electrical / Facility Space Planning / Fire Protection / Fuels /  
Geotechnical / Medical / Mechanical / Pavements/Airfields /  
Renewable Energy Generation / Security / Specifications / Structural / **Sustainability** / Control Systems / Waterfront

### DOCUMENT PRODUCTION

## UNIFIED FACILITIES CRITERIA AND GUIDE SPECIFICATIONS

# Criteria Program Notes



- ESEP serve as the overarching program steering committee, fielding congressional issues to the managers, and final approvals for criteria publications
- CP represent each Service, and approve criteria projects and documents before going to ESEP
- Criteria Managers represent each Service on each WG and produce criteria documents, based on industry change or Agency/OSD/Federal need
- A few WG have OSD representation, due to Federal policy and/or reporting requirements
- Functional WGs produce programmatic criteria that affects several disciplines; Discipline WGs produce discipline-specific criteria



# DoD Facility Criteria Strategy

Whole Building Design  
Guide [www.wbdg.org](http://www.wbdg.org)

Local/Installation requirements

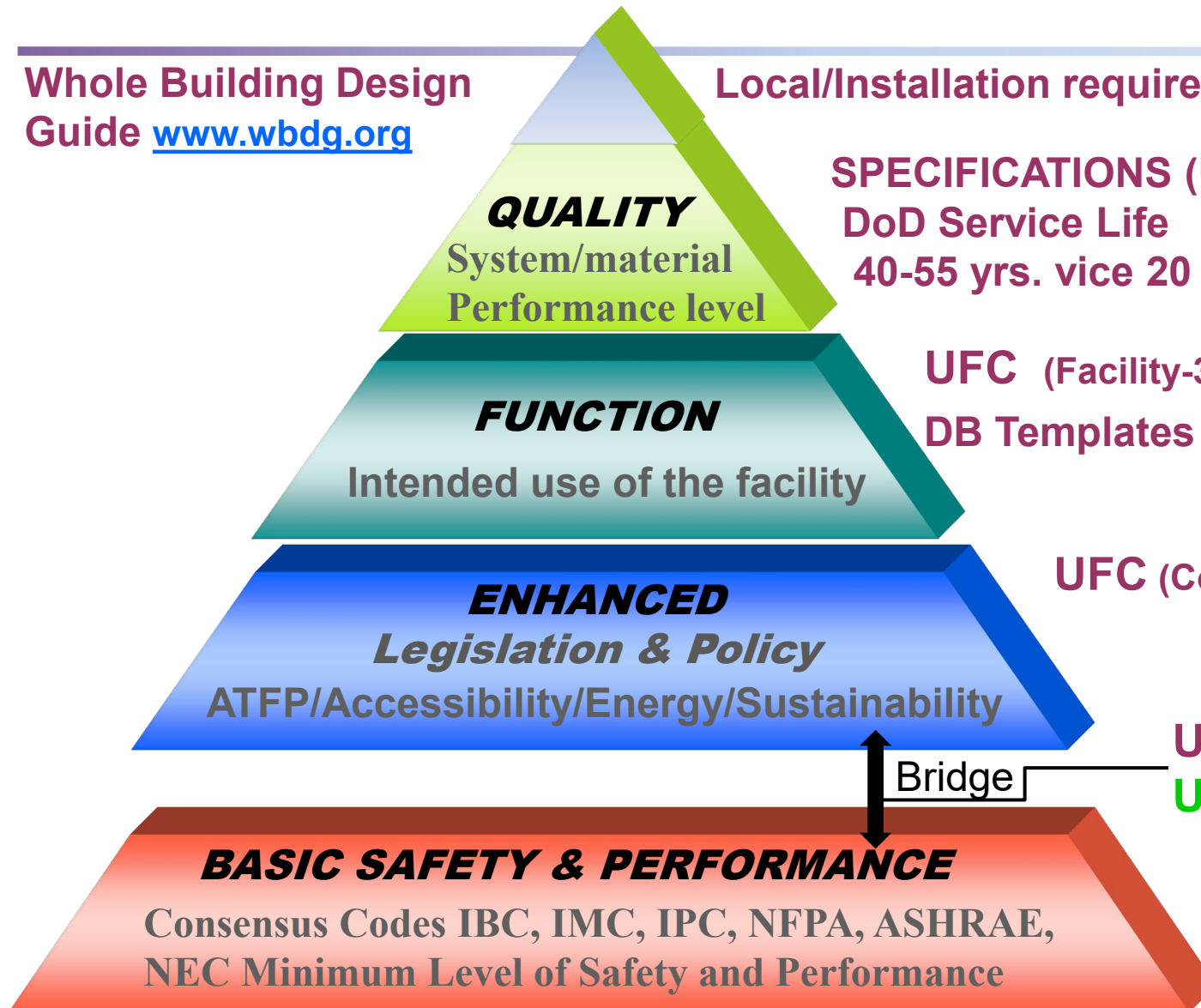
**SPECIFICATIONS (UFGS)**  
DoD Service Life  
40-55 yrs. vice 20 yrs. Commercial

**UFC** (Facility-33±/Specialty-126±)  
DB Templates & Standard Designs

**UFC** (Core-28±)

**UFC 1-200-01**  
**UFC 1-200-02**

**INDUSTRY  
STANDARDS**



# Criteria Strategy Notes



- **Goals of criteria include DoD consolidation and industry alignment**
- **2014 Study of 104 criteria documents (UFCs and UFGSs) found:**
  - Over 90% of the information is aligned with industry
  - Over 86% of these documents are completely aligned with industry, and the number is rising all the time
  - Study excluded Federal, DoD, Service requirements (ATFP, sustainability, Energy, Davis-Bacon wages, Pass Office requirements, etc.)

# Criteria – UFC & UFGS

#s fluctuate; provide planning, design, construction, sustainment, restoration, modernization criteria; use commercial standards

28	Core UFCs	Consists of general building requirements, high performance mandates, and discipline specific systems found in most all buildings. Focus on building code compliance, life safety, legislation compliance, & performance Refer to UFC 1-200-01 for list of Core UFCs
294	Facility Type UFC Facility Type FC	(Fitness Centers ,CDCs, Fire Stations, etc.): Tri-Service and Service-specific. Focus on mission, function, space, amenities, and QOL.
126	Specialty UFCs	Less frequent usage but contains important unique requirements (Piers, mooring, dockside utilities, ranges, master planning, airfield pavements & drainage, petroleum fuel facilities, boiler control systems, security engineering, cathodic protection, & etc.)
776	UFGS	Quality intended for 40-55-year service life (vice 20yrs in commercial sector) TOC and lessons learned based.