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CHIEF, NATIONAL GUARD BUREAU**

**AIR NATIONAL GUARD INSTRUCTION  
32-1023**



**21 JANUARY 2015**

**Civil Engineering**

**CRITERIA AND STANDARDS FOR AIR  
NATIONAL GUARD DESIGN AND  
CONSTRUCTION**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction modifies the guidance provided by the 32-series of Air Force publications that concern the Air National Guard (ANG), especially AFI 32-1023, *Design and Construction Standards and Execution of Facility Construction Projects* and AFI 32-1032, *Planning and Programming Real Property Maintenance Projects Using Appropriated Funds (APF)*. This instruction formulates specific operational and procedural policy guidance to implement execution of installations and facilities programs of the Chief of the National Guard Bureau under the authority of AFD 32-10, *Installations and Facilities*. This instruction and referenced documents prescribe the procedures necessary in assisting the ANG Base Civil Engineers (BCE) and the United States Property and Fiscal Officers (USPFO) in the design and construction of Military Construction Program (MCP) and Sustainment, Restoration, and Modernization (SRM) projects. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional change of command. Submit requests for waivers from guidance directed in this instruction through the appropriate functional chain of command to NGB/A7O.

## ***SUMMARY OF CHANGES***

This publication has been substantially revised and must be completely reviewed. The revision changes the title of this publication from *Criteria and Standards for Air National Guard Construction* to *Criteria and Standards for Air National Guard Design and Construction*. This revision codifies approval authorities for the SRM program and implements the Air National Guard Engineering Technical Letter system. Other changes include the roles and responsibilities of the Design Working Group, updated procedures for Base Review Conferences and Criteria Review Conferences, and updated procedures and requirements for Architect-Engineer contracts.

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## Chapter 1

### POLICIES AND PROCEDURES

**1.1. General Information.** The Chief, National Guard Bureau (NGB-ZA) is responsible for the design and construction of Air National Guard (ANG) facilities as directed by AFPD 32-10. Under authority of 10 USC § 18233(c), NGB-ZA has delegated management of design and construction of Military Construction Program (MCP) and Sustainment, Restoration, and Modernization (SRM) program projects for the ANG to the Director, Installations and Mission Support (NGB/A7). Direction contained in this Air National Guard Instruction (ANGI) governs over AFI 32-1023.

**1.2. Purpose.** This ANGI provides direction to the Air National Guard Installations and Mission Support Directorate (NGB/A7), United States Property and Fiscal Officers (USPFO), State Military Departments, Base Civil Engineers (BCEs), and design and construction agents concerned with the design and construction of ANG facilities.

**1.3. Applicability.** This instruction applies to all ANG construction, including new construction, reconstruction, rehabilitation, alteration, modification, maintenance, and repair of existing facilities and infrastructure, regardless of fund source. These criteria will not be used solely as a basis for improving standards of existing facilities and infrastructure, except where necessary to achieve an acceptable level of safety, quality, and performance.

**1.4. Approval Authorities.** The Director, Air National Guard (NGB/CF) has delegated project approval authority to the USPFO for the SRM program in the following amounts, per NGB/CF Memorandum, *Redelegation of Approval Authorities for ANG Sustainment, Restoration, and Modernization (SRM) Work*, dated 8 April 2011.

Minor Construction	\$100K
Repair	\$700K
Maintenance	\$700K

This authority may be further delegated to the Facilities Board Chair and to BCEs. Approval authority for design is based on the programmed amount (PA) for each project.

#### 1.4.1. Change order approval authorities.

1.4.1.1. Changes to architect-engineer (A-E) contracts. For projects above the USPFO's approval authority, all changes to an A-E contract must be approved by the NGB/A7O project manager (PM). Refer to [paragraph 4.7](#) for more details.

1.4.1.2. Changes to construction contracts. For projects above the USPFO's approval authority, individual changes with costs less than \$10,000 may be approved by the BCE. Any change greater than \$10,000 requires approval from the NGB/A7O PM. Refer to [paragraph 7.6](#) for more details.

1.4.1.3. Funding for all changes must be closely monitored to ensure projects remain within approval thresholds and statutory limits. Any change that causes a project to cross a new level of approval authority requires re-programming approval through NGB/A7A prior to approval of the change.

1.4.2. Approval authorities for studies. BCEs are authorized to procure A-E contracts for studies, plans, and investigations up to a maximum of \$25,000. For contracts above that amount, BCEs shall request authority and funding through NGB/A7A.

**1.5. Deviations from Criteria.** Deviations from Unified Facilities Criteria (UFC), Unified Facilities Guide Specifications (UFGSs), ANG Engineering Technical Letters (ANGETLs), Air Force Engineering Technical Letters (AF ETLs), and model building codes may be authorized by submitting an exemption request to the appropriate authority as defined herein. Exemptions to life safety, occupational safety, security, force protection, or other criteria required by public law (U.S. Code) or Department of Defense direction are not permitted unless specifically authorized in legislation or DoD direction. Approved exemptions from criteria apply to a specific facility project and remain in effect indefinitely or until reevaluation/reconfirmation is required by other guidance (AFI, UFC, ETL, etc.).

1.5.1. UFCs. Technical design requirements for DoD facilities are given in UFC publications. Designers are required to comply with all requirements unless the appropriate authority exempts these requirements. In general, the Air Force Civil Engineer Center (AFCEC) Director or Deputy Director is the approval authority (authority having jurisdiction) for exemption from a UFC's requirements for a given project. Refer to MIL-STD-3007F for further guidance.

1.5.2. UFGS. The UFGS system includes all official construction guide specifications for planning, design, construction, operation and maintenance, sustainment, restoration, and modernization. Designers are required to comply with all requirements unless the appropriate authority exempts these requirements. In general, the AFCEC Director or Deputy Director is the approval authority (authority having jurisdiction) for exemption from a UFGS's requirements for a given project. Refer to MIL-STD-3007F for further guidance.

1.5.3. ANGETLs. Designers must comply with all requirements unless the appropriate authority exempts these requirements. In general, the NGB/A7 office having technical responsibility for the ANGETL is the approval authority (authority having jurisdiction) for exemptions from ANGETL requirements.

1.5.4. Air Force ETLs. For applicable AF ETLs, the AFCEC Director or Deputy Director is the approval authority (authority having jurisdiction) for exemption from a requirement within the ETL. Submit waiver requests to NGB/A7O for processing to AFCEC.

1.5.5. Referenced Model Building Codes and Standards. The office having technical responsibility for a UFC, ANGETL, or AF ETL which references a model building code or standard is the approval authority (authority having jurisdiction) for exemptions to the referenced model building code or standard. Submit requests for exemption to NGB/A7O for processing to the appropriate authority.

## **1.6. Program Oversight.**

1.6.1. NGB/A7O provides accountability and program management from design through financial closeout. The NGB/A7O SRM and Military Construction (MILCON) program managers establish milestones throughout the year to ensure project designs are completed in time to meet budget year execution. NGB/A7O monitors design and construction costs to ensure compliance with statutes, executive orders, and all other applicable regulations and ensures proper financial closeout of projects. Program management also includes

implementation of sustainable design principles, with energy efficiencies incorporated throughout the design and the life of the facility. NGB/A7O PMs ensure sustainable design goals are achieved during construction and certification requirements are completed. NGB/A7O utilizes the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building Rating System. NGB/A7O reports metrics for resource conservation, renewable energy, and LEED to HQ USAF.

1.6.2. Project Data System (PDS). PDS is the ANG's information management system for design and construction programs. It is used for tracking programming actions, project status, and funding. Through the web-based version of this program ("PDS Web"), base civil engineering staffs are able to monitor project status and submit construction status reports.

## **1.7. Cost and Scope Control.**

1.7.1. MILCON. Congress approves each major MILCON project at a specific cost and scope. Title 10 USC § 2853 limits the scope of all MILCON projects to block 9 of the DD Form 1391, *FY\_\_ Military Construction Project Data*. Follow procedures detailed in Deputy Under Secretary of Defense for Installations and Environment Memorandum, *Authorized Scope of Work for Military Construction Projects*, issued 24 June 2013, and Contracting Policy Letter 09-01.

1.7.2. Projects funded through other programs will generally follow the same rules as MILCON. However, waiver authority resides with the NGB/A7O program manager.

## Chapter 2

### ROLES AND RESPONSIBILITIES

**2.1. The Assistant Secretary of the Air Force for Installations, Environment, and Logistics (SAF/IE).** The Assistant Secretary of the Air Force for Installations, Environment, and Logistics (SAF/IE) is responsible for installation and facility policy and provides policy oversight.

**2.2. The Deputy Assistant Secretary of the Air Force for Installations (SAF/IEI).** The Deputy Assistant Secretary of the Air Force for Installations (SAF/IEI) is responsible for facility construction planning and programming policy and oversight and advocates for the MILCON program through the Office of the Secretary of Defense (OSD), Office of Management and Budget (OMB), and Congress.

**2.3. The Assistant Secretary of the Air Force for Financial Management and Comptroller (SAF/FM).** The Assistant Secretary of the Air Force for Financial Management and Comptroller (SAF/FM) holds sole fiduciary responsibility and oversight of all Air Force financial management, systems, and appropriations.

**2.4. The Deputy Assistant Secretary of the Air Force for Budget (SAF/FMB).** The Deputy Assistant Secretary of the Air Force for Budget (SAF/FMB) is responsible for budgeting and submitting the Air Force Budget Estimate Submission (BES) to OSD and the Air National Guard MILCON portion of the President's Budget (PB) to Congress. SAF/FMB is also responsible for distributing funds once MILCON projects are authorized and appropriated by Congress.

**2.5. The Chief, National Guard Bureau (NGB-ZA).** The Chief, National Guard Bureau (NGB-ZA) is responsible to the Secretary of the Air Force, the Secretary of Defense, and Congress for properly managing construction programs and for economically using funds appropriated for such construction.

**2.6. The Director, Air National Guard (NGB/CF).** The Director, Air National Guard (NGB/CF) is responsible for formulating specific operational and procedural guidance to implement broad policy, advocates for resources, oversees execution of installations and facilities programs, and develops and manages the life-cycle process for Air National Guard facilities, as prescribed by AFD 32-10.

**2.7. The Director, Air National Guard Installations and Mission Support (NGB/A7).** The Director, Air National Guard Installations and Mission Support (NGB/A7) is responsible for Air National Guard facility construction planning and programming policy and oversight.

**2.8. The NGB/A7 Operations Division (NGB/A7O).** The NGB/A7 Operations Division (NGB/A7O) establishes ANG design and construction policy and procedures for the ANG. The NGB/A7O program managers oversee the execution of the MILCON and SRM programs. Other programs [e.g. Base Realignment and Closure (BRAC) and Energy Conservation Incentive Program (ECIP)] are overseen by other NGB/A7O project managers who are assigned responsibility for these programs. Project managers within the division are responsible for the management of the design and construction of the projects within their assigned states. NGB/A7O is also responsible for managing the ANGETL system.

**2.9. The Air National Guard Civil Engineering Technical Services Center (NGB/A7OC).** This Center is located at Minot, ND and serves as the ANG center of expertise for facility design and construction. They provide technical expertise for facility management, fire protection, control systems, pavements, roofs, generators, and aircraft arresting systems. NGB/A7OC also manages the facility energy program for the ANG.

**2.10. Design and Construction Agents.** Construction agent responsibilities are the design and construction execution responsibilities associated with military construction program facilities. Under authority of DOD Directive 4270.5, *Military Construction Responsibilities*, paragraph 4.3.4.1, NGB-ZA normally uses the services of the United States Property and Fiscal Officer (USPFO) in each state and territory as the design and construction agent for ANG projects. Where the ANG is a tenant on another installation (whether another DoD agency or other entity), the ANG shall select the design and construction agent in collaboration with the host.

**2.11. Base Civil Engineers (BCEs).** Base Civil Engineers (BCEs) are responsible for managing design and construction of all real property facility projects at their installations and geographically separate units (GSUs).

**2.12. Design Working Group (DWG).** The DWG is a base-level team that provides functional area requirements to the design team and ensures these requirements are incorporated throughout the design process. The DWG chairperson is usually the BCE. Other members normally include, but are not limited to, representatives from the using activity, the fire department, safety, security, communications, and environmental management.



## Chapter 3

### PROJECT CRITERIA

**3.1. General.** Project requirements are developed by the BCE in collaboration with NGB/A7A. These requirements are authorized through the DD Form 1391, which forms the basis for the project's design scope and budget. Projects must comply with the basic design criteria and directions listed in this chapter. Further, this chapter describes the procedures for preparing project documentation.

### 3.2. Applicable Directives.

3.2.1. General. The objective for all ANG facilities programs is to enable mission execution and promote occupant safety and quality of life with sustainable facilities.

3.2.2. UFC. The UFC program is implemented by MIL-STD-3007F, Under Secretary of Defense Memorandum, *Department of Defense Unified Facilities Criteria*, dated 29 May 2002, and this ANGI.

3.2.3. UFGS. The UFGS system is implemented by MIL-STD-3007F, Under Secretary of Defense Memorandum, *Department of Defense Unified Facilities Criteria*, dated 29 May 2002, and this ANGI.

3.2.4. Commercial Standards. Congressional and DoD direction require use of private sector criteria and technical standards based on their suitability for military use. The UFC unification process maximizes the use of commercial standards.

3.2.5. Air National Guard ETLs (ANGETLs).

3.2.5.1. Authority. This ANGI establishes policies and procedures and assigns responsibilities for publishing, distributing, and implementing ANGETLs, based on authority derived from AFPD 32-10.

3.2.5.2. Purpose. ANGETLs governing design and construction provide specific design guidance, procedures, criteria, and standards for ANG facilities.

3.2.5.3. Applicability. ANGETLs apply to all ANG facilities, whether constructed on ANG installations or other installations. ANGETLs are directive in nature. An ANGETL remains in effect for as long as it states or until it is cancelled, rescinded, or superseded by a later ANGETL. ANGETLs are posted on the NGB/A7O SharePoint site, [https://gkoportal.ng.mil/ang/A7/Pages/Branches/A7O\\_Design\\_Construction.aspx](https://gkoportal.ng.mil/ang/A7/Pages/Branches/A7O_Design_Construction.aspx) and are distributed to interested parties as needed.

3.2.5.4. Roles and Responsibilities.

3.2.5.4.1. NGB/A7 is the approval authority for all ANGETLs.

3.2.5.4.2. NGB/A7O.

3.2.5.4.2.1. Manages the ANGETL system for the ANG Installations and Mission Support Directorate.

3.2.5.4.2.2. Determines the need for ANGETLs related to design and construction.

3.2.5.4.3. Functional areas within NGB/A7 determine the need for ANGETLs for matters under their purview and are responsible for general management of them. These responsibilities include, but are not limited to, coordination, publication, biennial review, and distribution, in collaboration with NGB/A7O.

3.2.5.4.4. All ANGETL owners shall ensure that any organizations assigned responsibility within their ANGETL have an opportunity to review and concur or non-concur on the ANGETL prior to publication.

3.2.6. Air Force Engineering Technical Letters (AF ETLs).

3.2.6.1. Purpose. The AF ETL system provides specific design guidance, procedures, criteria, and standards for Air Force facilities and ANG facilities protecting AF assets.

3.2.6.2. Applicability. AF ETLs may not apply to ANG facilities. BCEs should consult NGB/A7O for applicability.

3.2.7. Whole Building Design Guide (WBDG). The WBDG website, with its Construction Criteria Base (CCB) electronic library, is the official distribution medium for all non-sensitive, technical DoD facility-related documents and contains the latest UFCs, UFGSs, and AF ETLs, and. All UFC, UFGS, and AF ETL documents can be accessed at <http://www.wbdg.org>.

3.2.8. Space Criteria. For ANG facilities, refer to ANGH 32-1084, *Standard Facility Requirements*.

3.2.9. Relationship to Community and Local Development. Base plans and projects will be developed with full consideration of the planning goals and objectives of communities surrounding ANG bases to enhance public value. Refer to Executive Order (EO) 13327, *Federal Real Property Asset Management*; DoD Directive 4165.06, *Real Property*; and AFPD 32-90, *Real Property Asset Management*, for further guidance. In addition, federal agencies operating airfields shall work with local, regional, state, and other federal officials on compatible land use planning and ensure their programs serve to foster compatible land use and protect the airspace. Refer to AFI 32-7063, *Air Installation Compatible Use Zone Program*; Title 14, Code of Federal Regulations Part 77, *Objects Affecting Navigable Airspace*; and UFC 3-260-01, *Airfield and Heliport Planning and Design*. ANG projects on commercial airports may require Federal Aviation Administration (FAA) Form 7460 for compliance with FAA standards.

3.2.10. Preservation of Historic Resources. DoDI 4715.16, *Cultural Resources Management*, provides policy, prescribes procedures, and assigns responsibilities for managing archaeological and historic resources in and on properties and lands under DoD control. Refer to AFPD 32-70, *Environmental Quality*, AFI 32-7064, *Integrated Natural Resources Management*, and AFI 32-7065, *Cultural Resources Management Program*, for guidance and compliance requirements.

3.2.11. Sustainable Design and Development. All ANG projects shall incorporate sustainable design principles to the maximum extent practical by project scope and when life cycle cost effective. The ANG has adopted the USGBC's LEED Green Building Rating System as a tool to measure sustainability elements achieved during design and construction. All ANG projects, regardless of scope or funding source, shall use the LEED rating system

as a self-assessment metric and comply with the most recent ANG sustainable design policy. Sustainable design goals are established in the Design Instruction (DI) and shall be tracked during the design process on the LEED score sheet provided with the DI. The WBDG further explains environmental issues related to building materials and provides technical guidance on green building material selection and environmental issues. Refer to UFC 1-200-02, *High Performance and Sustainable Building Requirements* and UFC 3-210-10, *Design for Low Impact Development*.

3.2.12. Energy Efficiency and Compliance. Designers shall endeavor to reduce energy and water consumption and increase energy security in all facility projects in accordance with Title 10 Code of Federal Regulation, Parts 433, 434, 435 and 436; Public Law 109-58, *Energy Policy Act of 2005 (EPAct05)*; EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*; EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* or updates or superseding executive orders; and Public Law 110-140, *Energy Independence and Security Act of 2007 (EISA2007)*. Designers shall incorporate such measures when supported by a life cycle cost analysis. Consult UFC 1-200-02 for guidance and compliance requirements.

3.2.13. Renewable Energy. Designers shall evaluate forms of renewable energy in accordance with Title 10 United States Code Section 2915, *New Construction: Use of Renewable Forms of Energy and Energy Efficient Products* and incorporate renewable energy features into designs when supported by a life cycle cost analysis.

3.2.14. Metering. All ANG buildings require metering where cost effective. Required facilities shall comply with AF ETL 11-1, *Civil Engineer Industrial Control System Information Assurance Compliance*. At installations where an advanced meter reading system exists, all new building meters will become part of that system. Designers shall consider impacts of utilities privatization as it relates to metering.

3.2.15. Explosive Safety Standards. Modification of ammunition and explosives facilities or any planned facilities near ammunition and explosives facilities will be reviewed by the DoD Explosive Safety Board in accordance with DoDM 6055.09-M-V1, *DoD Ammunition and Explosives Safety Standards*, DoDD 6055.9E, *Explosives Safety Management and the DoD Explosives Safety Board*, and AFMAN 91-201, *Explosives Safety Standards*.

3.2.16. Environmental Criteria. All projects must meet applicable federal, state, and local environmental standards and regulations in the U.S., its territories, and possessions.

3.2.17. Sensitive Compartmented Information Facilities (SCIFs). Projects involving SCIFs must conform to specific technical requirements and require coordination with and review by the base's site security officer (SSO) and NGB/A2. Refer to IC Tech Spec-for ICS/ICS 705, *Technical Specifications for Construction and Management of Sensitive Compartmented Information Facilities*, and UFC 4-010-05, *Sensitive Compartmented Information Facilities Planning, Design, and Construction*.

3.2.18. Other Criteria. Other unique technical criteria, such as mission directives, Mission Critical Facility Engineering Standards, Facility Document Criteria, Technical Orders (TOs), host base standards, and local airport requirements may be applicable due to the project scope. When applicable, the BCE and DWG will provide these criteria to the design team.

**3.3. Project Requirements.** The authorized scope and cost in the DD Form 1391 are the bases from which all project requirements are derived. A project documentation package shall be prepared for all projects. When using A-E design services, the project documentation package will provide the contracting officer with a concise and accurate description of the project requirements to be used in the A-E contract as the technical provisions. The project documentation package will form the basis upon which an A-E firm is to prepare its design of the project. The project documentation package must be a complete and accurate description of user functions and requirements. The ANG relies on the project documentation package and the A-E's competency for the design of a complete and usable facility. Refer to ANGETL 12-07, *Preparation of Project Documentation Package*.

3.3.1. Basis of Design is a document developed and updated during the entire design process that defines the government's requirements for the project and describes in a narrative form the principal aspects of the design solution. Refer to ANGETL 10-03, *ANG Design Objectives and Procedures (Tab C)*.

3.3.1.1. Basis of Design Part I - Design Intent is developed during the Concept Development phase (Type A services) and establishes baseline criteria and goals for facility function, performance, maintainability, and any other information required to define the project requirements. Design criteria in all manuals and TOs should be restated or otherwise specifically referenced. It includes six distinct sections.

3.3.1.1.1. Tab A defines the requirements for any buildings, structures, and infrastructure needed and may include the DD Form 1391.

3.3.1.1.2. Tab B defines site development requirements.

3.3.1.1.3. Tab C (ANGETL 10-03) is included, which defines the ANG design process and the requirements of the A-E to develop the design documents.

3.3.1.1.4. Tab D, ANGETL 01-1-1, *ANG Design Policy*, provides general technical requirements applicable to all ANG facilities.

3.3.1.1.5. Tab E contains the project approval package documents, which include, as a minimum, the DD Form 1391, the Certificate of Compliance, the MILCON or SRM Checklist, and AF Form 813, *Request for Environmental Impact Analysis*.

3.3.1.1.6. Tab F includes various appendices as appropriate for the particular project, such as an Environmental Restoration Program (ERP) Appendix, Real Estate Appendix, or an Asbestos Appendix.

3.3.1.2. Basis of Design Part II - Design Narrative describes the features of the design that are used to meet the objectives described in the Design Intent. It is a narrative prepared by the A-E with each design submission to explain how the proposed design satisfies the project requirements. It describes the technical approach used for systems selections, integration, and sequence of operations, focusing on design features critical to overall building performance. It further identifies loads, capacities, clearances, and other salient aspects of the design. Some reiteration of the design intent may be included as well as additional information collected from the A-E's fact finding investigations.

**3.4. Roles and Responsibilities.** The satisfactory development of project requirements requires the effort and coordination of the support organizations (e.g., fire chief, environmental manager,

bio-environmental technician, chief of security police, chief of safety, operations, maintenance, etc.), the BCE, and the NGB/A7O PM. Coordination with the airport authority is also required for projects located on joint-use municipal airports that affect commercial aviation.

3.4.1. BCE. The BCE is responsible for preparing the Design Intent based on information provided by all organizations and agencies concerned. The BCE may use A-E services to develop the Design Intent when specifically authorized by NGB/A7O. The BCE should impress upon all parties concerned that the Design Intent is the appropriate vehicle for describing all project requirements. The BCE must augment the using organization's requirements with all available information concerning the site, existing utilities, paving, buildings, and any other conditions that will affect the design. The BCE is the primary source of information for Tab B.

3.4.2. Users. The using organization must supply complete functional descriptions and accurate planning criteria for the project documentation, including all applicable regulations, instructions, and TOs. The using organization is the source of primary information for Tab A.

3.4.3. Design Working Group (DWG). A DWG is established for each project through written appointment by the Facilities Board chairperson (also refer to ANGETL 12-05, *Design and Construction Handbook*, for details). The wing commander and all members of the DWG shall concur on the Design Intent in writing. Members of the DWG who have specific technical requirements must supply these requirements and supporting criteria documents to the design team. ANG units which are tenants on installations of the Air Force, Army, Navy or other government agencies shall obtain, and attach to the Design Intent, a statement from the host that the project siting is in accordance with their master plan or installation development plan.

3.4.4. Environmental Manager. The base's Environmental Manager is responsible for ensuring all required environmental requirements are addressed and may be required to coordinate with local environmental agencies.

## Chapter 4

### DESIGN AUTHORIZATION

**4.1. General.** Portions of this chapter may not apply where A-E services are procured by the US Army Corps of Engineers, the Naval Facilities Engineering Command, or other design and construction agents. Procedures for selection of A-E firms are described in the Federal Acquisition Regulation (FAR) Subpart 36.6, *Architect Engineer Services*, National Guard Acquisition Manual Subpart 36.6, and ANGETL 99-01, *Architect-Engineer Selection Process*. The NGB/A7A Program Development Branch validates, programs, coordinates approval of, and releases for design projects for all construction programs. NGB/A7O authorizes design of a project to the design/construction agent (normally the USPFO or other agent per [paragraph 2.4](#)).

**4.2. Authorization.** Authorization to design a project is required prior to contacting A-E firms or procuring A-E services as follows.

#### 4.2.1. SRM.

4.2.1.1. USPFO-approved SRM projects. The BCE may begin a design with in-house resources after the project is approved at the appropriate authority level.

4.2.1.2. NGB-approved SRM projects. NGB/A7O provides authority for design through issuance of a Design Instruction (DI) and supporting documents.

4.2.1.3. Studies, plans, and investigations. Some projects may require A-E services to provide investigative studies and planning to define a project's scope prior to completing programming documentation and initiating design. In these and similar situations, BCEs will work with NGB/A7A to request authority and funding if the amount of the A-E contract exceeds their approval authority as defined in **paragraph 1.4.2**.

4.2.2. MILCON. NGB/A7O provides authority for design through issuance of a DI and supporting documents.

4.2.3. The contracting officer must submit a project acquisition plan to NGB/A7O within 15 days of receipt of a DI. The contracting officer, in conjunction with the BCE, shall continue to report acquisition status to the NGB/A7O PM on a monthly basis.

**4.3. Design Instructions.** The following information is normally included in the DI.

4.3.1. Authority to procure A-E services.

4.3.2. Location, scope, and maximum construction cost of the project.

4.3.3. Sustainable design goal and applicable Executive Orders.

4.3.4. Energy reduction goal.

4.3.5. DD Form 1391.

4.3.6. A-E services requirements checklist.

4.3.7. Program execution milestones to ensure Office of the Secretary of Defense (OSD) and Congressional obligations are met for the fiscal year in which the project is planned for construction.

4.3.8. Identification of initial design funding, which is issued for the project under separate cover.

#### **4.4. Types of A-E Services.**

4.4.1. **Type A.** These services include advance planning studies as well as field surveys and investigations required to obtain data essential to the performance of direct design (Type B) services that are not available from government resources. These surveys and investigations may include topographical surveys, geotechnical surveys, mechanical surveys and investigations, determination of utility locations and capacities, and similar fact-finding investigations, technical studies, life cycle costing, sustainable design, concept cost estimates, or concept development studies.

4.4.2. **Type B.** These services provide production of complete designs, including plans, specifications, design analyses, and cost estimates.

4.4.3. **Type C.** These services include construction inspection, testing, submittal review, and management services. The option for the A-E to perform Type C services shall not be exercised until the construction contract has been awarded.

4.4.4. A-E fees for Types A, B, and C services shall be negotiated as separate contract options at the same time and shall be submitted together on the A-E negotiation report.

4.4.5. Code and Criteria reviews will be included as an option in the A-E contract when directed by the NGB/A7O PM. Refer to ANGETL 10-03 (Tab C).

#### **4.5. Use of A-E Indefinite Delivery Indefinite Quantity (IDIQ) Contracts.**

4.5.1. Contract conditions for A-E IDIQ services are under the purview of the Office of the Principle Assistant Responsible for Contracting (NGB-OPARC).

4.5.2. The BCE is authorized to use local or national A-E IDIQ services for all SRM and MILCON projects (including advance planning studies), subject to project authority levels.

4.5.3. Local A-E IDIQ. ANG installations that have a BCE position are authorized an active A-E IDIQ service contract at all times. The contract shall support geographically separated units (GSUs) under a BCE's purview and shall include other ANG units within the state and may include Army National Guard requirements for similar services. The contracting officer and USPFO should consider including geographic regions in adjacent states.

4.5.3.1. Contracts for A-E services are issued by the USPFO. A-E selection authority is delegated to the BCE. However, selection of an A-E firm for an IDIQ base contract or a task order on an existing IDIQ contract with total A-E fees estimated to exceed \$500,000 must be approved by NGB/A7O prior to contracting action by the USPFO. Refer to ANGETL 99-01.

4.5.3.2. Contracts may be established for a maximum of five years, including base and option periods.

4.5.3.3. Where workload dictates, installations may have more than one A-E IDIQ contract, preferably overlapping. If multiple A-E IDIQ contracts are used, fair opportunity requirements of FAR Subpart 16.5, *Indefinite-Delivery Contracts*, shall apply.

4.5.3.4. **Thresholds.** Dollar thresholds and maximum dollar amounts per delivery order are established in NGAM Subpart 36.6. Current amounts are \$500,000 per delivery order and with NGB/A7O approval may go to but not exceed \$750,000. The cumulative amount of delivery orders on a single contract is limited to \$10,000,000.

4.5.4. **National A-E IDIQ.** National A-E IDIQ contracts are managed by NGB-OPARC. They are available for all projects. BCEs should consider utilizing the national IDIQ for projects unique to the ANG, such as those involving hangar fire suppression systems, airfield pavements, SCIFs, simulators, or specialized weapons systems. BCEs are cautioned against using a national IDIQ contract for smaller SRM projects when the A-E firm does not have an office in close proximity to the installation due to associated travel costs.

**4.6. Funding A-E Services.** This section applies only when the USPFO is the Design/Construction Agent.

4.6.1. Funds to initiate procurement of A-E services will be provided with the issuance of the DI. Additional funds required to award a design contract will be provided after submission of A-E negotiation report to NGB/A7O. Funds for remaining options will be provided as available.

4.6.2. Per 10 USC § 4540, A-E fees for producing contract plans and specifications, which normally are completed during Type B, are limited to six percent of the project's maximum construction cost.

4.6.3. **Type C Services.** Type C services are funded using project construction funds. They are a funded project cost and subject to statutory thresholds established by the work classification and authorized PA.

**4.7. Changes to A-E Contracts.** Requests for changes to A-E contracts shall be made to NGB/A7O for approval, along with justification and an independent government estimate of additional A-E fees. If approved, the contracting officer or BCE shall submit a revised A-E negotiation report to NGB/A7O. Notification of either a funding action or a reservation of funds will be sent along with the approval to change the A-E's contract. If the final price for the change varies from the government estimate by 25% or more, re-approval by NGB/A7O is required. The USPFO may approve changes to A-E contracts or delivery orders for projects within SRM local project authority.

**4.8. A-E Performance Evaluation.** For each contract or task order over \$30,000 and for all A-E contracts terminated for default, regardless of dollar value, the contracting officer is required by FAR Subpart 42.1502 to ensure an A-E performance evaluation report is prepared. Ordinarily, the evaluating official should be the person responsible for monitoring contract performance. The BCE is relied upon to provide support to the contracting officer for this. DFARS Subpart 236.604 requires a separate report by the contracting officer after the actual construction of the project. The BCE shall ensure the Architect Contract Administration Support System (ACASS) rating is completed within 60 days of the completion of the final design documents and 60 days of acceptance of the completed project.



## Chapter 5

### BASE REVIEW CONFERENCES AND CRITERIA REVIEW CONFERENCES

**5.1. General.** Base Review Conferences (BRC) and Criteria Review Conferences (CRC) shall be conducted for all MILCON and select SRM projects. The BCE coordinates scheduling and planning of the BRC and CRC with the contracting officer and NGB/A7O PM. The NGB/A7O PM facilitates the BRC and CRC for all MILCON projects and select SRM projects but may delegate this authority to the BCE on a situational basis. (**Note:** NGB/A7O will determine whether a BRC and a CRC are required for an SRM project based on the project scope, cost, and complexity.) Refer to ANGETL 12-06, *Design Meetings and Presentations*.

**5.2. Base Review Conference.** The BRC is conducted prior to the CRC with the government design team. The objectives of the BRC are as follows.

- 5.2.1. To review and validate project documentation.
- 5.2.2. To clarify and agree on design objectives prior to the CRC.
- 5.2.3. To provide a forum to brief the design process to the Design Working Group (DWG), contracting officer, and wing leadership.
- 5.2.4. To provide an opportunity to review design procedures and milestones.
- 5.2.5. To establish a foundation among government design team members for effective communications and coordination throughout the design process.

**5.3. Criteria Review Conference.** The CRC is a meeting conducted with the selected A-E firm, the contracting officer, the BCE, the NGB/A7O PM, and the user. It is held prior to the A-E fee negotiation and contract award. The purpose of the CRC is to clarify for the A-E firm the design criteria depicted in the project documentation. The CRC is not a forum to change the project criteria.

5.3.1. The objectives of a CRC are as follows.

- 5.3.1.1. To review the scope of work and criteria in sufficient detail for the A-E to understand the level of effort involved and prepare a fee proposal for designing the project. The independent government estimate of the A-E fee may be adjusted based on information discussed during the CRC.
- 5.3.1.2. To ensure the A-E understands design procedures and milestones.
- 5.3.1.3. To ensure the A-E understands the project scope, construction cost limitations, and contract provisions in detail, with emphasis on special requirements, limitations, and operating parameters that may not be obvious.
- 5.3.1.4. To clarify special technical and functional requirements contained in the project documentation.
- 5.3.1.5. To explore peculiarities of the site and local conditions in order to take full advantage of the background and experience of those familiar with the site and locality.
- 5.3.1.6. To establish professional relationships and good lines of communication between the A-E, contracting officer, BCE, and the user.

5.3.2. The BCE will document any discussions that revise the design criteria. This documentation will become part of the project documentation and contract file.

5.3.3. The contracting officer normally issues the formal request for proposal to the A-E at the conclusion of the CRC.

## Chapter 6

### DESIGN MANAGEMENT

**6.1. General.** The goal of the design process is to provide contract documents that enable the construction of a complete and usable facility that complies with the approved project scope and cost. The BCE should refer to ANGETL 12-05 for details.

**6.2. Typical Design Process.** The milestones and requirements, which are described in more detail in ANGETL 10-03 (Tab C), for accomplishing the design of most projects include the following. These procedures are adjusted for design-build projects; the BCE should consult with the NGB/A7O PM for those projects.

6.2.1. Investigative Services (Type A). The A-E shall conduct necessary surveys, fire flow tests, soil borings, soils analyses, environmental analyses, utility capacity analyses, and other fact finding investigations such as determining permitting requirements, clarifying user requirements, economic feasibility studies, etc.

6.2.1.1. Concept Proposal Meeting. The DWG meets with the A-E to review several conceptual schemes and selects a single scheme to investigate further.

6.2.1.2. Concept Development Meeting. The A-E meets with the DWG to review further development of the selected concept.

6.2.1.3. Concept (Type A2) Submittal. The A-E will submit the Type A concept design following the Concept Development Meeting as prescribed by Tab C.

6.2.2. Design Services (Type B).

6.2.2.1. Contract Documents (Type B1) Development Meeting. The A-E shall meet with the DWG to review the drafted contract documents.

6.2.2.2. Type B1 Submittal. When required by the contract, this submittal includes draft technical specifications, drawings in 65% detail for all disciplines of work, and updated revisions of all other contract documents. Submittal and review by NGB/A7OC shall be completed when specified in the DI.

6.2.2.3. Pre-Final (Type B2) Submittal. This design phase requires submission of completed design documents. The submittal documents that become part of the construction contract solicitation shall be sufficient for bid advertisement.

6.2.2.4. Final (Type B3) Submittal. This design phase provides final design documents.

6.2.3. Following each design submittal, a formal notice to proceed (NTP) is required from the USPFO. The NTP may be issued only after the appropriate office (defined in paragraph 6.4) provides written approval to the USPFO.

6.2.4. Code and Criteria Review. A code and criteria review will be performed only upon approval by NGB/A7O PM. Refer to Tab C.

**6.3. SRM Projects with Minor Construction Component.** For SRM projects that have minor construction work in addition to other work classifications, contract documents shall clearly delineate the minor construction elements to enable contractors to provide separate pricing for that work.

#### 6.4. Design Review Responsibilities.

6.4.1. BCE. The BCE has the ultimate responsibility for reviewing each design submittal. The BCE ensures that appropriate coordination with the DWG and any other applicable agencies is completed and documented for each design submittal. The BCE typically is the chairperson for the DWG.

6.4.1.1. When a project has the potential for impacting commercial aviation or airport activities, the BCE shall submit FAA Form 7460 to the FAA to ensure compliance with FAA standards.

6.4.1.2. For NGB-approval level projects, the BCE is delegated authority to approve the Types A1, B1, and B3 submittals, unless specifically rescinded by NGB/A7O. For projects within the USPFO's approval level, the BCE is the approval authority for all design submittals.

6.4.1.3. For all projects, the BCE requests programmatic cost estimates for furniture and certain communications items that are not supported with SRM or MILCON construction funds from the appropriate organizations. When provided by those organizations, the BCE shall submit these cost estimates to the NGB/A7O PM. Refer to ANGETL 01-1-1, AFI 65-601 V1, *Budget Guidance and Procedures*, and AF ETL 02-12, *Communications and Information System Criteria for Air Force Facilities*, for further guidance on funding communications systems.

6.4.2. DWG. The DWG works with the A-E's design team and provides guidance throughout the design process. All members of the DWG shall review each design submittal and document their coordination and comments with the BCE.

6.4.2.1. Installation Environmental Manager. The Installation Environmental Manager ensures all required environmental permits are identified in the design and may be required to coordinate with local environmental agencies.

6.4.3. Contracting Officer. The contracting officer issues the NTP for each design submittal to the A-E, after receiving appropriate approval.

6.4.4. NGB/A7O PM. The NGB/A7O PM ensures the design complies with the approved scope, budget, and applicable regulations. The PM provides oversight of project milestones. For NGB-approval level projects, the PM provides approval or disapproval of the Type A2 and Type B2 design submittals and authorization to proceed to the next design phase.

6.4.5. NGB/A7OC. NGB/A7OC provides technical review for all projects involving airfield pavements, aircraft arresting systems, hangar fire suppression systems, fuels facilities, and when requested by the BCE.

6.4.6. Host. Where an ANG unit is a tenant on a reserve, active duty, or any type of joint base, the host command shall be given the opportunity to review design documents for criteria that can affect the services they provide the ANG. Since the ANG is responsible for operation and maintenance of its own facilities, any design comments submitted for the project will be reviewed and approved or disapproved by NGB/A7O.

6.4.7. Other Design and Construction Agents. When other government agencies are the design and construction agent, they shall obtain coordination of data concerning base responsibilities from the ANG BCE.

6.4.8. A-E. The A-E is responsible for the completeness and technical adequacy of all project designs.

6.4.9. Other Government Agencies. Any interested government agencies, such as the state, local airport authorities, or municipalities impacted by the project may review design submittals. The BCE shall consolidate these comments and forward them to the NGB/A7O PM.

## Chapter 7

### CONSTRUCTION MANAGEMENT

**7.1. General.** This chapter defines the responsibilities and actions of the construction management team. Details are provided for the typical project where the USPFO acts as the Design/Construction Agent. When the U.S. Army Corps of Engineers or the Naval Facilities Engineering Command acts as the Design/Construction Agent, similar procedures will be followed but adjusted accordingly.

#### **7.2. Roles and Responsibilities.**

##### 7.2.1. NGB/A7O PM.

- 7.2.1.1. Provides contracting authority.
- 7.2.1.2. Provides award authority for MILCON projects.
- 7.2.1.3. Coordinates funding actions.
- 7.2.1.4. Reviews and approves monthly construction status reports.
- 7.2.1.5. Reviews and provides approval for change orders.
- 7.2.1.6. Ensures projects remain within approved project scope and programming thresholds.
- 7.2.1.7. Ensures projects are properly financially closed IAW ANGETL 09-11, *Project Closeout Process* and Joint Contracting Policy Letter 09-02.

##### 7.2.2. BCE.

- 7.2.2.1. Participates in pre-bid site visits.
- 7.2.2.2. Participates in source selection awards, as applicable.
- 7.2.2.3. Assists the contracting officer in reviewing contractor bids or proposals.
- 7.2.2.4. In conjunction with the contracting officer, submits Bid Opening Report to the NGB/A7O PM.
- 7.2.2.5. Notifies the NGB/A7O PM of initial contract award via submittal of a construction status report within five days of contract award.
- 7.2.2.6. Participates in the pre-construction conference.
- 7.2.2.7. Submits monthly status reports IAW ANGETL 98-04, *Design and Construction Reports*. Submits Parts 1, 2, and 3 to the NGB/A7O PM via email and submits Part 4 via PDS Web.
- 7.2.2.8. Provides construction surveillance, including acting as the Contracting Officer's Representative (COR), when designated in writing by the contracting officer.
  - 7.2.2.8.1. Field inspections. An A-E firm contracted for Type C services may support the COR to complete field inspections.
    - 7.2.2.8.1.1. Inspection records. The government's project inspector documents

field inspections using the AF Form 1477, *Construction Inspection Record*. Entries in this log must be complete and timely and should provide an accurate account of the details of the project. All entries shall be made in ink. This document shall be turned over to the contracting officer for inclusion in the contract file. This document can be used to substantiate or contest a claim for delay and to provide other documentary evidence in the event of disputes with the contractor.

7.2.2.8.1.2. Daily inspections. Make periodic daily inspections of the work and assure that the contractor is properly accomplishing construction and inspection of the work as required by the contract. On days when no work is accomplished, the inspection record should include a brief statement as to why no work was performed.

7.2.2.8.1.3. Reports. During construction, report contractor progress on AF Form 3065, *Contract Progress Report*, (or similar form agreed to at the pre-construction conference), to the contracting officer. Document all contractor delays, including those delays caused by the government. The contracting officer shall determine the frequency of the reports (e.g., weekly, monthly) depending upon the complexity of the project.

7.2.2.8.2. Performance evaluation. For each contract over \$650,000 and all contracts terminated for default, regardless of amount, the contracting officer is required by FAR Subpart 42.1502 to prepare a performance evaluation report. The BCE shall accomplish the Construction Contract Appraisal Support System (CCASS) rating within 120 days of official beneficial occupancy.

7.2.2.9. Ensures projects are properly closed IAW current ANGETL 09-11 and any other governing regulations. This may include financial, real property, and NEPA actions.

7.2.3. Contracting Officer. The contracting officer is the only individual authorized to direct changes to the contract.

**7.3. SRM Projects with Minor Construction Component.** SRM projects that have minor construction work in addition to other work classifications shall be bid with a minimum of two contract line items (CLINs), with one designated for the minor construction. Contract documents shall clearly delineate the minor construction elements to enable contractors to provide separate pricing for that work.

**7.4. Construction Funding.** The following procedures shall be used for funding all projects above the USPFO approval authority.

7.4.1. Within two working days after the bid opening or successful negotiation, the contracting officer, in conjunction with the BCE, shall submit a Bid Opening Report to NGB/A7O. Refer to ANGETL 98-04.

7.4.2. For funded projects, funding will be adjusted by NGB/A7O for the accepted bid, Type C services, and any other project cost as listed in the bid opening report. For MILCON projects, contingency funds may also be included.

7.4.3. For SRM projects advertised with advanced contracting authority, funding will be provided when funds become available.

7.4.4. Projects advertised based on a statement of reservation of funds confirmed by NGB/FM will be funded to their award amount, if at or below the current working estimate (CWE), including the cost of any Type C services. If the award amount, including any Type C services, exceeds the CWE or funds reservation amount, NGB/A7O will coordinate with NGB/FM to provide the necessary additional funding and will provide specific approval to award.

**7.5. Preconstruction Conferences.** The contracting officer conducts the preconstruction conference. Attendees include representatives of the contractor, the A-E (if Type C services are awarded), the user, various base offices, and the BCE. The preconstruction conference should include:

7.5.1. Assurance that appropriate coordination has been completed between the A-E, the contractor, the BCE, and the contracting officer to ensure a smooth job progression. Any organization directly affected by the project should be represented. For example, the user, base security, safety office, fire service, flight operations, and maintenance should be represented.

7.5.2. Assurance that work areas and access routes that will be used by contractor personnel and equipment are clearly defined and understood by all concerned.

7.5.3. Assurance that any security clearance and identification requirements of the contract have been or will be met.

7.5.4. Assurance of compliance with regulations governing the provision of utilities from government sources to contractor facilities.

7.5.5. Issuance of the NTP if the contractor has provided all required items (e.g. performance bonds and payments bonds) and the government is prepared for the contractor to start work.

7.5.6. Assurance that the AF Form 3064, *Contract Progress Schedule*, is understood and that it is the basis for determining the amount of progress payments. A computerized progress schedule, acceptable to the contracting officer and BCE, may be used in lieu of the AF Form 3064. Projects over \$1 million will incorporate a Critical Path Method construction schedule or similar construction schedule.

7.5.7. A statement of the availability of government-furnished items and contractor long-lead time items.

7.5.8. Assurance that arrangements have been made by the contractor to store, protect, and secure construction materials stockpiled for later use.

7.5.9. Complete minutes, including coverage of all final notices and agreements, shall be sent to all attendees. AF Form 3035, *Pre-performance Conference and Pre-final Payment Checklist*, will be accomplished, to include a sign-in sheet of all those attending. AF Form 3035 may be used as a guide for an agenda, tailored to fit local conditions.

**7.6. Change Orders.** A change order is required to correct a design omission or deficiency, user-requested change, or an unforeseen site condition. Any change order related to A-E design omissions or deficiencies requires a review by the BCE and/or NGB/A7O prior to contract modification by the contracting officer. Multiple change orders may be combined into a single contract modification; however, approval authorities are based on the amounts of individual change orders, whether the change results in a credit or an additional cost to the project.



Approval of individual change orders for projects remaining within USPFO approval authority is delegated to the BCE. Individual change orders (additional costs incurred or contractor credits received) for SRM projects above USPFO approval authority and all MILCON projects will be approved as follows:

7.6.1. Change orders up to \$10,000. Approval of individual change orders not to exceed \$10,000, except for changes in space/function, is delegated to the BCE. This approval is not an authority to exceed regulatory and statutory funding thresholds.

7.6.2. Change orders over \$10,000. Approval from NGB/A7O is required for any change order over \$10,000. Requests for changes are submitted via a Construction Status Report (CSR) in PDS Web. This may be either a monthly CSR or interim CSR, depending on the urgency of the request. If the final price for the change order varies from the government estimate by 25% or more, re-approval from NGB/A7O is required.

7.6.3. Change orders requiring expired funds. All change orders that require funds from an expired appropriation must be approved by NGB/A7O, regardless of amount. Refer to AFI 65-601V1 for guidance on requesting funds for such changes through the Obligation Adjustment Reporting System (OARS) program.

7.6.4. All contract modifications, regardless of approval authority, shall be documented in PDS Web via a CSR.

7.6.5. In the event a requested and approved change is no longer required, cancellation of the change must be made at the same approval level as the initial authority.

**7.7. Construction Status Reporting.** A monthly reporting of construction status is required for all MILCON projects and NGB/A7-funded SRM projects regardless of approval levels. The construction status report is described in ANGETL 98-04. All construction status reports will be submitted via PDS Web.

**7.8. Transfer and Acceptance Procedures.** Transfer and acceptance of new construction is the responsibility of the USPFO or other construction agent.

7.8.1. The BCE is responsible for preparation and submission of the DD Form 1354, *Transfer and Acceptance of Military Real Property*. The BCE shall ensure the form is completed according to AFI 32-9005, *Real Property Accounting and Reporting*, and any ANG directives applicable to the base's real property management office. The BCE or A-E (depending on the specific contract requirements) will draft the DD Form 1354 during the design process. The BCE must ensure the DD Form 1354 is completed in sufficient detail for establishing real property records and is accompanied by a complete listing of all real property installed equipment. If the construction contract requires the contractor to prepare this form, the BCE or contract administrator shall not authorize final payment to the contractor until it has been completed, reviewed, and accepted. The base's real property specialist should provide input on the review and acceptance of the DD Form 1354. The BCE will ensure the DD 1354 is submitted to the USPFO for signature.

7.8.2. When the USPFO is not the construction agent, that agency shall prepare and sign the DD Form 1354, and the USPFO shall sign the form to accept the transfer of accountability.

7.8.3. The BCE shall ensure after acceptance or transfer of real property, it is reflected in BUILDER and the Space Utilization File (S-File). A facility condition assessment on new

buildings shall be conducted and uploaded into BUILDER. If a building is demolished or transferred it shall be deleted from BUILDER. The S-File for new buildings shall also be created and uploaded into the S-File Widget or deleted in the case of demolition or transfer of real property.

MICHAEL R. TAHERI, Brigadier General, USAF  
Commander, ANGRC

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

10 CFR Part 433, *Energy Efficiency Standards for the Design and Construction of New Federal Commercial and Multi-Family High-Rise Residential Buildings*, current edition

10 CFR Part 434, *Energy Code for New Federal Commercial and Multi-Family High Rise Residential Buildings*, current edition

10 CFR Part 435, *Energy Efficiency Standards for New Federal Low-Rise Residential Buildings*, current edition

10 CFR Part 436, *Federal Energy Management and Planning Programs*, current edition

10 USC § 1803, *Facilities for Reserve Components*

10 USC § 2807, *Architectural and Engineering Services and Construction Design*

10 USC § 2853, *Authorized Cost and Scope of Work Variations*

10 USC § 2915, *New Construction: Use of Renewable Forms of Energy and Energy Efficient Products*

10 USC § 4540, *Architectural and Engineer Services*

14 CFR Part 77, *Objects Affecting Navigable Airspace*, current edition

AFI 32-1023, *Designing and Constructing Military Construction Projects*, 21 April 2010

AFI 32-1032, *Planning and Programming Appropriated Funded Maintenance, Repair, and Construction Projects*, 15 October 2003

AFI 32-7063, *Air Installation Compatible Use Zone Program*, 13 September 2005

AFI 32-9005, *Real Property Accounting and Reporting*, 14 August 2008

AFI 65-601 Volume I, *Budget Guidance and Procedures*, 16 August 2012

AFMAN 91-201, *Explosives Safety Standards*, 12 January 2011

AFPD 32-10, *Installations and Facilities*, 4 March 2010

AFPD 32-90, *Real Property Asset Management*, 6 August 2007

ANGETL 01-1-1, *Air National Guard Design Policy*, March 2004

ANGETL 09-11, *Project Closeout Process*, 23 November 2009

ANGETL 10-03, *Air National Guard Design Objectives and Procedures, (Tab C)*, 16 April 2010

ANGETL 12-05, *Design and Construction Handbook*, 6 July 2012

ANGETL 12-06, *Design Meetings and Presentations*, 6 July 2012

ANGETL 12-07, *Preparation of Project Documentation Package*, 6 July 2012

ANGETL 98-04, *Design and Construction Reports*, 14 October 1998

ANGETL 99-01, *Architect-Engineer Selection Process*, 9 April 1999

DFARS, Subpart 236.6, *Architect-Engineer Services*

DoDD 4165.06, *Real Property*, 13 October 2004

DoDD 4270.5, *Military Construction*, 12 February 2005

DoDD 6055.9E, *Explosives Safety Management and the DoD Explosives Safety Board*, 19 August 2005

DoDM 6055.09-M-V1, *DoD Ammunition and Explosives Safety Standards: General Explosives Safety Information and Requirements*, Incorporating Change 1, 12 March 2012

EO 11988, *Floodplains Management*, 24 May 1977

EO 11990, *Protection of Wetlands*, 24 May 1997

EO 12114, *Environmental Effects Abroad of Major Federal Actions*, 4 January 1979

EO 13327, *Federal Real Property Asset Management*, 4 February 2004

EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, 24 January 2007

EO 13514 *Federal Leadership in Environmental, Energy, and Economic Performance*, 5 October 2009

*Energy Independence and Security Act (EISA) of 2007*, 19 December 2007

*Energy Policy Act of 2005 (EPAct05)*, 8 August 2005

*Executive Order 13327 Federal Real Property Asset Management*

ETL 02-12, *Communications and Information System Criteria for Air Force Facilities*, 27 June 2002

ETL 11-1, *Civil Engineer Industrial Control System Information Assurance Compliance*, 30 March 2011

FAR Part 36, *Construction and Architect-Engineer Contracts*

FAR Subpart 16.5, *Indefinite-Delivery Contracts*

FAR Subpart 42.15, *Contractor Performance Information*

IC Tech Spec-for ICS/ICS 705, *Technical Specifications for Construction and Management of Sensitive Compartmented Information Facilities*, 23 April 2012

MIL-STD-3007F, *Standard Practice for Unified Facilities Criteria and Unified Facilities Guide Specifications*, 13 December 2006

National Guard Acquisition Manual, Interim, 10 August 2012

UFC 1-200-01, *General Building Requirement, with Change 1*, 1 September 2013

UFC 1-200-02, *High Performance and Sustainable Building Requirements*, 1 March 2013

UFC 3-210-10, *Design for Low Impact Development*, 15 November 2010

UFC 3-260-01, *Airfield and Heliport Planning and Design*, 17 November 2008

UFC 4-010-05, *Sensitive Compartmented Information Facilities Planning, Design, and Construction*, 1 February 2013 with Change 1, 1 October 2013

***Adopted Forms***

AF Form 813, *Request for Environmental Impact Analysis*

AF Form 847, *Recommendation for Change of Publication*

AF Form 1477, *Construction Inspection Record*

AF Form 3035, *Pre-performance Conference and Pre-final Payment Checklist*

AF Form 3064, *Contract Progress Schedule*

AF Form 3065, *Contract Progress Report*

DD Form 1354, *Transfer and Acceptance of DoD Real Property*

DD Form 1391, *FY\_\_ Military Construction Project Data*

FAA Form 7460, *Notice of Proposed Construction or Alteration*

***Abbreviations and Acronyms***

**ACASS**—Architect Contract Administration Support System

**A-E**—Architect-Engineer

**AF**—Air Force

**AFCEC**—Air Force Civil Engineer Center

**AFI**—Air Force Instruction

**ANG**—Air National Guard

**ANGETL**—Air National Guard Engineering Technical Letter

**ANGI**—Air National Guard Instruction

**BCE**—Base Civil Engineer

**BRAC**—Base Relocation and Closure

**BRC**—Base Review Conference

**CCAS**—Construction Contract Appraisal Support System

**COR**—Contracting Officer's Representative

**CRC**—Criteria Review Conference

**CSR**—Construction Status Report

**CWE**—Current Working Estimate

**DFAR**—Defense Federal Acquisition Regulations

**DI**—Design Instruction

**DoD**—Department of Defense

**DWG**—Design Working Group  
**ECIP**—Energy Conservation Incentive Program  
**EISA**—Energy Independence and Security Act of 2007  
**EO**—Executive Order  
**EPACT**—Energy Policy Act of 2005  
**ERP**—Environmental Restoration Program  
**ETL**—Engineering Technical Letter  
**FAA**—Federal Aviation Administration  
**FAR**—Federal Acquisition Regulation  
**FB**—Facilities Board  
**FBO**—Federal Business Opportunities  
**FOA**—Forward Operating Agency  
**GSU**—Geographically Separate Unit  
**IDIQ**—Indefinite Delivery/Indefinite Quantity  
**LEED**—Leadership in Energy and Environmental Design  
**MILCON**—Military Construction  
**MCP**—Military Construction Program  
**NEPA**—National Environmental Policy Act  
**NG**—National Guard  
**NGAM**—National Guard Acquisition Manual  
**NGB**—National Guard Bureau  
**NGB/A2**—Air National Guard Intelligence Directorate  
**NGB/A7**—Air National Guard Installations and Mission Support Directorate  
**NGB/A7A**—Programming Division  
**NGB/A7O**—Operations Division  
**NGB/A7OC**—Technical Services Center at Minot  
**NGB/CF**—Director, Air National Guard  
**NGB/FM**—Air National Guard Financial Management Directorate  
**NGB-ZA**—Chief, National Guard Bureau  
**NTP**—Notice to Proceed  
**SRM**—Sustainment, Restoration, and Modernization  
**OSD**—Office of the Secretary of Defense

**PA**—Programmed Amount

**OARS**—Obligation Adjustment Reporting System

**OMB**—Office of Management and Budget

**OPARC**—Office of the Principal Assistant Responsible for Contracting

**OSD**—Office of the Secretary of Defense

**PDS**—Project Data System

**PM**—Project Manager

**SAF/FM**—Assistant Secretary of the Air Force for Financial Management and Comptroller

**SAF/FMB**—Deputy Assistant Secretary of the Air Force for Budget

**SAF/IE**—Assistant Secretary of the Air Force for Installations, Environment, and Logistics

**SAF/IE**—Deputy Assistant Secretary of the Air Force for Installations

**SCIF**—Sensitive Compartmented Information Facility

**SSO**—Site Security Officer

**TO**—Technical Orders

**UFC**—Unified Facilities Criteria

**UFGS**—Unified Facilities Guide Specification

**USGBC**—United States Green Building Council

**USPFO**—United States Property and Fiscal Officer

**WBDG**—Whole Building Design Guide

### *Terms*

**Contracting Officer**—A U.S. military officer or civilian employee who has a valid appointment as a contracting officer under provisions of the FAR. This individual has the authority to enter into and administer contracts and determinations as well as findings about such contracts.

**Contracting Officer Representative**—A qualified individual appointed by the contracting officer to assist in the technical monitoring or administration of a contract.

**Government Design Team**—Team consisting of the NGB/A7O project manager, contracting officer, and the Design Working Group. This team is collectively responsible for ensuring projects are executed in accordance with all applicable executive orders, statute authorities, and other regulations and support mission requirements.

**Design Working Group**—Team at base-level responsible for developing requirements and ensuring their requirements are incorporated into the project's design.

**Maximum Construction Cost**—The set dollar limitation that the project shall not exceed. This amount is established by the NGB/A7O project manager and provided to the USPFO and BCE in the design instruction.

**Military Construction**—The program approved annually by Congress in the DoD Authorization and Military Construction Acts, plus individual projects pursuant to standing project authority provided by Congress in Title 10 of the United States Code.