Task Order

STATEMENT OF WORK

27 January 2023

**1.0 SCOPE**

**1.1** This task order (TO) statement of work (SOW) defines the scope of a single task for construction and engineering activities under the Hill Air Force Base Design-Build Multiple Award Construction Contract IV. This SOW is tailored to identify specific Task Order requirements. The Statement of Work for Multiple Award Construction Contract IV, (MACC IV), dated 13 January 2021, applies to this task order except as specifically altered by reference in this document.

**1.2** The MACC Contractor shall function as an integral team member in support of the Hill Air Force Base mission, to include the sharing of information with other Hill Air Force Base contractors and cooperation with communities, and other government entities.

**1.3** Requirements include efficient project management including accurate, on-time submittals of contract deliverables and timely identification and solution of impediments to successful project execution. Technical requirements include early involvement in the process to allow for the development of the most cost-effective and technically sound solution. Hill AFB will rely on the Contractor’s expertise in recognizing and addressing problematic issues and successful execution of this Task Order. The Contractor shall perform all work in accordance with federal, state, and local statutes and regulations.

**2.0 PROJECT DESCRIPTION**

The objective of this task order is to plan and complete the demolition of multiple buildings located within MSA I and MSA II, Hill AFB, UT. This Statement of Work contains separate CLINs for the demolition of Buildings labeled 1471, 1494, 2006, 2107, 2108, 2131, 2132, 2138, 2204, 2206, 2207, and 2227 at Hill Air Force Base, UT. The demolition will include, but is not limited to, the abatement/removal of asbestos containing materials (ACM) and other regulated materials (ORM), disconnect/removal of utilities, water main reconfiguration, disposal of all debris materials, and restoration of the site to a specified condition. Since originally constructed, it is possible the facilities have been refurbished or renovated in past years. Following demolition, the Contractor shall be responsible for restoring the work site with respect to grading and proper drainage, as per attached specifications.

All work performed by the Contractor shall be implemented in a manner which conforms to the requirements in this Statement of Work (SOW), all applicable Federal, and state and local regulations, and all accepted Work Plans and submittals. If there is a conflict between Federal, state, and local regulations and the SOW, the Contractor shall immediately inform the Contracting Officer. If, however a conflict does arise, the most stringent rule will apply. The Contractor shall present a complete description of the planning and demolition process as applied to the subject facilities.

The contractor shall provide all management, tools, supplies, equipment, and labor necessary to demolish the structures and utilities back to its source. Each building shall be completely demolished from top of structure to bottom of existing footings or substructure; spot footings, stairs, ramps, equipment, and surrounding walkway and parking surfaces shall be completely removed within the demolition limits unless specified otherwise by the Contracting Officer. Each site shall be leveled out and graded to match the existing adjacent grades in a manner that will not cause excess stormwater runoff or pooling. Areas left after demolition shall be fully restored to match existing adjacent grades and vegetation specified by the reseeding requirements for Hill AFB found in the attached “Required Airfield and MSA seed mix.pdf”. Refer to specification listings to include but not limited to 02 41 00, Demolition and Deconstruction. Excess fill and debris from each site shall be hauled off Hill AFB and disposed of within requirements spelled out in the attached specifications. Any fill material brought onsite shall include a certification of clean fill from the supplier.

An Asbestos/Lead Based Paint abatement contractor must be used and meet the qualifications spelled out in “Abatement Contractor Qualifications Requirements” document and Base Facility Design Standards (See 3.3.5 Site Restoration and Final Cleanup).

(CLIN 0001-CP1051150) Building 1471 is approximately 11,085 square feet, and 32’-0” tall. The facility was constructed during 1921. The construction type is likely clay block masonry. Demolition of the building shall include the removal of the concrete loading dock and ramp. Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place.

(CLIN 0002-CP1051147) Building 1494 is approximately 1,211 square feet, and 16’-0” tall. The facility was constructed during 1938. Building 1494 is an earth-covered concrete structure. Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 60-linear feet of drainage pipe.

(CLIN 0003-CP1051149) Building 2006 is approximately 127 square feet, and 12’-0” tall. The facility was constructed during 1942. Building 2006 is a cement block structure. Contractor shall provide an allowance to remove 30-linear feet each of underground steam and condensate piping. Contractor shall provide an allowance to remove 30-linear feet of underground conduit attached to the North side of Building 2006.

(CLIN 0004-CP1051151) Building 2107 is approximately 1,148 square feet, and 11’-0” tall. The facility was constructed during 1941. Building 2107 is an earth-covered concrete structure. Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 30-linear feet of each; water pipe, steam, and condensate piping/insulation.

(CLIN 0005-CP1051152) Building 2108 is approximately 1,148 square feet and 11’-0” tall. The facility was constructed during 1941. Building 2108 is an earth-covered concrete structure. Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 30-linear feet of each; water pipe, steam, and condensate piping/insulation.

(CLIN 0006-CP1051153) Building 2131 is approximately 1,148 square feet, and 11’-0” tall. The facility was constructed during 1941. Building 2131 is an earth-covered concrete structure. Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 30-linear feet of each; water pipe, steam, and condensate piping/insulation.

(CLIN 0007-CP1051154) Building 2132 is approximately 1,148 square feet, and 11’-0” tall. The facility was constructed during 1941. Building 2132 is an earth-covered concrete structure. Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 30-linear feet of each; water pipe, steam, and condensate piping/insulation.

(CLIN 0008-CP1051155) Building 2138 is approximately 1,148 square feet, and 11’-0” tall. The facility was constructed during 1941. Building 2138 is an earth-covered concrete structure. Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 30-linear feet of each; water pipe, steam, and condensate piping/insulation.

(CLIN 0009-CP1051156) Building 2204 is approximately 2,400 square feet, and 20’-0” tall. The facility was constructed during 1942. Building 2204 is a concrete block structure. The building has an approximately 6-inch-thick concrete slab over an approximately 6-inch cinder bed.

Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 30-linear feet of each; water pipe, sewer, natural gas, steam, and condensate piping/insulation.

(CLIN 0010-CP1051157) Building 2206 is approximately 1,148 square feet, and 12’-0” tall. The facility was constructed during 1941. Building 2206 is an earth-covered concrete structure.

Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 30-linear feet of each; water pipe, steam, and condensate piping/insulation.

(CLIN 0011-CP1051158) Building 2207 and 2227

* Building 2207 is approximately 1,148 square feet, and 12’-0” tall. The facility was constructed during 1941. Building 2207 is an earth-covered concrete structure.

Contractor shall provide an allowance to remove 30-linear feet of electrical duct bank. The contractor shall remove electrical secondary conductors back to the source. Contractor shall provide an allowance to remove 30-linear feet of underground communication duct bank. Protect communication box in place. Contractor shall provide an allowance to remove 30-linear feet of each; water pipe, steam, and condensate piping/insulation.

* Building 2227 is approximately 152 square feet, and 15’-0” tall. The facility was constructed during 1941. Building 2227 is a concrete block structure.

Contractor shall provide an allowance to remove 30-linear feet of electrical underground conduit.

**2.1 Period of Performance:** The Period of Performance for this contract shall be 365 calendar days following receipt of purchase order.

**2.2 Utilities and Equipment:** The contractor shall engage the services of the System Owner to perform disconnection/reconnection activities on system asset owned by City Light & Power or American Water up to the Point of Demarcation (POD). Contractor shall ensure and verify with City Light & Power (CLP) on site that all electrical connections are disconnected to prevent damage to CLP assets. Contractor shall remove any remaining equipment, wiring, telephone equipment, television equipment, conduit, piping, HVAC equipment and ductwork, fire detection and plumbing equipment, Intruder Detection System, controls, and connectors for the utilities connected to the facility back to their respective source. Water services supplying utilities within the footprint of the site map shall be demolished by digging up the main, cutting out the tee for service, and installing a short piece of pipe and two sleeves. If the water service is a small domestic water service with a saddle and a pipe tap, then the saddle can be removed and a full-circle clamp placed around the pipe to seal the hole. The sanitary sewer shall be excavated and disconnected from the main line or manhole in accordance with American Water’s specifications. Contractor shall field verify underground utilities supplying each facility, in coordination with Red Stakes, prior to demolition to determine actual location and size of the utility to be disconnected and prior to beginning any work. Due to the age of the facilities and inaccuracies with the Hill Air Force Base GeoBase, unknown physical conditions at the site may differ materially from utility drawings or as-builts. The contractor shall notify the Gov. PM of any significant differing site conditions. Any significant differing site conditions that are discovered and determined to be out of scope of this requirement by the CO, will be addressed with a modification to the contract. The contractor shall coordinate with the Government Project Manager to have any abandoned lines inspected and documented by Hill AFB. During demolition the construction contractor shall notify the 75 CEG surveyor before backfilling any trenched to allow for As-Built survey of alignment. Contractor shall process an approved excavation permit (as required) to request indication of buried utilities. All disconnection of utilities shall be coordinated with the system owner. AFI 32-1020 provides the new guidance requiring construction or connections/disconnections to privatized utilities to be performed by the System Owner. Additional coordination is required with the appropriate Hill AFB shop\organization responsible for utilities to the building designated for demolition by way of an outage request submitted at least twenty-eight (28) calendar days prior to any excavation or disconnection on an approval document provided by the project manager. The permit for excavation shall be submitted to the appropriate base authority for processing three-weeks in advance of any excavations. The salvage, demolition, and debris removal process for the building shall not begin until the facility is inspected with 75CEG/CENM project management personnel and all connecting utilities are shut down, disconnected, or isolated from the facility in a manner satisfactory to the project management personnel, the Civil Engineering interior/exterior electric shop, plumbing shop, American Water utility company, HVAC shop, Fire Department personnel, and Base Safety. The contractor is responsible to protect all such utilities at all times, unless indicated for demolition per Section 5.1. The contractor is required to demolish any utilities within the project limits per the allowance of such items specified in the CLINs above, that may not be indicated on the utility map. Existing utilities not indicated for demolition, whether shown on the drawings or not, which have been damaged as a result of the construction work, must be restored immediately to their original or better condition and must be paid for by the contractor. The contractor shall abide by all American Water and City Light & Power specifications.

**2.3 Salvage & Relocatable Items:** Coordinate with Hill AFB shops to remove any items designated as salvageable prior to the destruction of any portions of the facility unless the items must be extricated from imbedded construction within the facility that renders the items unusable. Contractor shall submit a report that non-hazardous solid waste has been generated, as per environmental spec 015720, section 3.8.4.

**2.4 Demolition of Structures:** The demolition will include, but is not limited to, the abatement/removal of all asbestos containing materials (ACM) and other regulated materials, disconnect/capping of utilities, disposal of all debris materials, and restoration of the site to a specified condition. Since originally constructed, the facility has been refurbished and renovated in past years. Following demolition, the contractor shall be responsible for restoring the work site with respect to grading and proper drainage. Contractor shall provide an existing condition report prior to performing Lead and Asbestos abatement for each Building. The contractor shall perform all Lead and Asbestos abatement prior to demolishing the roof, ceilings, walls, foundations, appurtenances, pavements (concrete or asphalt), drainage structures, and similar construction above and below ground within the designated demolition areas. The contractor is apprised that material from these eras are assumed to contain ACM, LBP, or ORM and shall include an allowance to remove all asbestos and lead based paint for the items listed below, which may not be included on the provided Asbestos Lead Based Paint Inspection Report. Those items include: underground utilities, interior piping, wall/ceiling/pipe insulation, window putty, vinyl floor tiles, roofing panels/shingles, plaster walls, door sealant, wall panel sealant, roof flashing, and wall/roof tar sealant, windows. The contractor is responsible to identify and remove all regulated materials under the negotiated firm fixed price of the original purchase order per Section 2.7. The contractor shall abide by the Hill AFB MB Fugitive Dust Control Plan. All materials will be adequately wetted prior to removal to control dust and spread of demolished materials. The contractor may, at the permission of the fire department and American Water, use water from approved fire hydrants to remediate dust, an approved backflow preventer must be attached to the hydrant. Connection and quality of backflow preventer will be inspected and approved by American Water before water flow is turned on. All removed materials shall be transported to an offsite designated disposal facility or recycling center on the same or following day the material is demolished/removed from within the building.

NOTE: Any general outline of features of the work provided by the government does not in any way limit the responsibility of the contractor to attend a site visit and ascertain the extent of all work to perform and to furnish all labor, materials, and equipment required to execute said Task Order.

**2.5 Hill AFB Construction and Demolition Waste Diversion Report:** Contractor shall track and document ALL reused, recycled and disposed of materials from the demolished sites in this contract on attached form “Hill AFB Construction and Demolition Waste Diversion Report”. The minimum diversion goal for this contract is 65% by weight.

Ensure that fluorescent lamps and mercury containing thermostats are properly managed as universal hazardous wastes. Ballasts from fluorescent lighting may need to be managed as PCB containing unless marked as PCB free. All hazardous wastes generated during demolition need to be managed in accordance with base policy and federal and state laws.

**2.6 Chemical Latrine:** The Contractor shall provide, at no additional cost to the government, a minimum of one chemical latrine, and additional latrines at one per 10 workmen. The latrine(s) will be at the job site for the duration of the contract performance period. The latrine(s) shall be serviced as often as required for sanitary conditions, but in no case shall servicing be less than once per week. Servicing shall comply with all applicable federal, state, and local laws, ordinances, and regulations. The latrine waste shall be disposed of legally off government lands.

**2.7 Asbestos and Lead-Based Paint Removal:** Asbestos Abatement & Lead-Based Paint Removal will be performed by the contractor. See provided inspection reports; any hazardous material that may be disturbed during the course of this project, including subsurface, shall be abated by a certified abatement company that has submitted the required qualification documentation and has been approved to perform abatement work by the 75 CES/CEOHA office. An asbestos work plan must be submitted and approved by the 75 CES/CEOHA office prior to starting any work. Pre and Post abatement visual inspection must be scheduled with the 75 CES/CEOHA office at least 48 hours in advance. Any discrepancies discovered between the visual inspection and the provided Asbestos Lead Based Paint Inspection Report, for which an allowance was not required to address per section 2.4, shall be reported to the Gov. PM. Any significant differing site conditions that are discovered and determined to be out of scope of this requirement by the CO, will be addressed with a modification to the contract. The contractor will remove the ACM in accordance with 29 CFR 1926.1101, as outlined in DAQ R307-801, as well as base guidelines. Upon completion of the asbestos removal, all surfaces inside the regulated area shall be visibly clean of any debris and or dust.

Entire work area will be HEPA vacuumed and wet cleaned prior to the final visual inspection and encapsulation. Critical barriers will cover all openings and penetrations inside the regulated work area and will remain in place until the areas have been released as clean, first by a visual inspection and then by aggressive air clearance sampling. A government representative certified as an asbestos inspector with 75 CES/CEOHA will provide this visual inspection. An independent, third-party consulting firm shall run the aggressive air clearance samples. A three-stage decontamination unit will be attached to each enclosure/phase prior to starting any asbestos removal. The decontamination unit will be equipped with hot and cold running water. Shower and or residual water will be filtered down to 5 microns before being discharged into a sanitary sewer drain. Regulated areas will be demarcated with asbestos warning signs and barrier tape.

Contractor will remove and properly package the ACM while adequately wet. Daily abatement project documentation/logs and all air monitoring results must be submitted to the 75 CES/CEOHA office at the completion of the project. All asbestos waste shall be disposed of at an approved landfill and all waste manifests shall be signed by the 75 CES/CEOHA office with a signed copy being returned within 30 days of the waste being disposed of.

If lead-based paint (LBP) was identified, see provided inspection report, any LBP that may be disturbed during the course of this project shall be abated by a certified abatement company that has submitted the proper qualification documents and has been approved by the 75 CES/CEOHA office. An LBP work plan must be submitted and approved by the 75 CES/CEOHA office prior

to starting any work. Pre and Post abatement visual inspection must be scheduled with the 75

CES/CEOHA office at least 24 hours in advance and any discrepancies found as a result shall be

corrected by the contractor, at no additional cost to the government, before proceeding.

The contractor will remove the LBP in accordance with 29 CFR 1926.62 and base guidelines. Upon completion of the LBP removal, all surfaces inside the regulated area shall be visibly clean of any debris and or dust. Entire work area will be HEPA vacuumed and wet cleaned prior to the

final visual inspection. Critical barriers will cover all openings and penetrations inside the

regulated work area and will remain in place until the areas have been released as clean by a

visual inspection. A government representative certified as an LBP inspector with 75

CES/CEOHA will provide this visual inspection. The contractor shall provide proper hygiene

facilities for use by employees when exiting the regulated area. Daily abatement project documentation/logs and all air monitoring results must be submitted to the 75 CES/CEOHA office at the completion of the project. Remove all hazardous material present in or on the facility to be demolished that has been identified either in Government-provided surveys, during the pre-bid site walk inspection, and/or encountered during contract work activities as part of the original firm-fixed-price contract. All ACM will be abated per Federal, state, and local guidelines and regulations. The Contractor shall check and verify all dimensions and quantities prior to submission of their proposal and assume full responsibility for the accuracy thereof. The Government provided Asbestos Leas Based Paint Inspection Report contains information regarding the current condition of the facilities to be demolished, the amounts and types of ACM that can be expected and the lab results from the tests done during the Pre-Demolition survey. Drawings, surveys, and reports provided by the Government are provided as references and to aid the asbestos abatement and hazardous materials removal design for this project. The Government makes no warranties or guarantees, implied or otherwise, regarding the quantities of ACMs provided as these are estimates based on professional judgment during onsite review of facilities and preparation of reports. The Contractor is responsible for preparing all drawings/building maps identifying locations of ACM and Other Regulated Material (ORM) needed to meet regulatory removal requirements.

\*NOTE\*

Specifications for containment requirements can vary depending on the hazardous materials

being abated as well as the methods of abatement being used. Work plans shall provide clear

explanation of containments to be established and removal methods. Any questions as to

acceptable base abatement practices should be submitted in writing to the contracting office to be

answered by the 75 CES/CEOHA office.

A list of approved contractors to perform asbestos and LBP abatement and Hill AFB and

associated sites are available through the 75 CES/CEOHA office. Any contractor not already

approved must submit the required documentation and be approved by the 75 CES/CEOHA

office prior to any work being done. A list of requirements needed for submittal may be

requested by contacting the 75 CES/CEOHA office; POC Casey Devlin 801-777-8006;

[casey.devlin@us.af.mil](mailto:casey.devlin@us.af.mil).

**2.8 Hot Work Permits. H**ot work permits must be request from 75 ABW Weapons

Safety Office and Base Fire Department. Contractor shall not issue their own Hot Work Permits.

**2.9 Preparation of Work Plans and Related Documents:** Work Plans are a significant quality element of the work. The Contractor’s performance with respect to Work Plans shall be rated in the Quality Assurance process. Work Plans are to address the specific needs of the task order. The inclusion of standardized processed in the technical description is acceptable. Generic documents that do not address the site-specific needs are unacceptable. The Contractor shall highlight all revisions within the Work Plan subsequent to the initial submittal. A “Changes List” shall be placed at the front of the document for each resubmittal.

Following award, the Contractor shall prepare and submit for acceptance a set of Work Plans and Related Documents. This SOW allows for 30-days following award of the Contract to prepare the initial work plans. The Contractor shall take full advantage of the Work Plan preparation period to further refine/identify available markets and landfill resources in the general area in order to develop the Diversion/Re-cycle Plan such that the maximum cost-effective reuse/disposal of the facility is obtained. In addition, these plans and documents shall be prepared in accordance with applicable Federal, state, and local regulations along with the instructions and guidance in this SOW and associated Specifications.

**2.10 Site Specific Demolition Work Plan:** The Work Plan shall be submitted in accordance with the specific requirements of this SOW. The Demolition Work Plan shall include the various sub-plans necessary to support/prosecute the work, e.g., Diversion/Re-Use Plan, Utilities, Asbestos Abatement Plan, etc., as well as the plans listed below. A detailed project schedule providing abatement and demolition timelines, restoration of site, and a projected completion date shall be included in the Work Plan. The Work Plan shall be based on a 4-day work schedule, Monday thru Thursday. The schedule shall take into account the hours of operation for MSA I and MSA II, Federal Holidays, potential weather delays, and review time for the Free Zone to be approved. The Work Plan shall clearly identify the Key personnel planned to be associated with the work, their qualifications, and accompanying resume and any necessary certifications to support the assigned duties. Sequencing of the work and specific work methods/processes shall be fully described such that the Government can readily understand how the Contractor will perform the individual tasks/phases or groups of tasks/phases.

**2.11 Accident Prevention Plan (APP):** A site-specific health and safety plan developed in accordance with U.S. Army Corps of Engineers Health and Safety Requirements, manual EM 385-1-1. The APP shall include a complete site-specific Activity Hazard Analysis (AHA) for each activity of the work. In particular, the Contractor shall develop as part of the APP, specific requirements for any “lift plan(s)” needed to remove equipment, trusses, or other items that require use of a crane or other lifting device which may cause hazards to personnel or structures. A specific hazard analysis for each type of lift shall be provided.

**2.12 Contractor’s Quality Control Plan (CQC):** Prepare a CQC Plan per requirements and guidance per specification 01 45 00.

**2.13 Storm Water Pollution Prevention Plan (SWPPP).** The contractor shall provide a SWPPP that meets the requirements of the State of Utah and spec section 01 57 23 if disturbing more than 1-acre.

**2.14 Fencing:** The contractor shall construct a temporary barrier around each work site to identify the site boundary and provide reasonable safe clearances. The boundary shall be installed prior to beginning any demolition or salvage efforts. The area within the boundary shall be designated a ‘Hard Hat’ area and be subject to inspection by Government personnel.

**3.0 APPLICABLE DOCUMENTS**

The Contractor shall identify and comply with all applicable federal, state, and local statutes. A partial list is presented in at the end of this document and in the Standard Design Criteria. It is the Contractor’s fundamental responsibility to identify and comply with all mandatory federal and applicable DoD and Air Force requirements whether or not listed specifically in these two documents.

**3.1 GOVERNMENT-FURNISHED INFORMATION, EQUIPMENT, AND PROPERTY (GFI, GFE, GFP)**

The Government provided Asbestos Lead Based Paint Limited Inspection Report contains information regarding the current condition of the facilities to be demolished, the amounts and types of ACM that can be expected and any lab results from the tests done during the Pre-Demolition survey. Drawings, surveys, and reports provided by the Government are provided as references and to aid the asbestos abatement and hazardous materials removal design for this project. The Government makes no warranties or guarantees, implied or otherwise, regarding the quantities of ACMs provided as these are estimates based on professional judgment during on-site review of facilities and preparation of reports. The Contractor is responsible for preparing all drawings/building maps showing locations of ACM and Other Regulated Material (ORM) needed to meet regulatory requirements under this purchase order.

**4.0 MANAGEMENT, PLANNING, AND REPORTING REQUIREMENTS**

The Contractor shall implement the range of construction and engineering activities specified in this Task Order and in accordance with all applicable compliance documents. The Contractor shall supply all labor, equipment, and materials necessary to accomplish the work assigned unless otherwise specified in this Task Order. The Contractor shall perform management and planning functions, including performance measurement and fund status reporting, through the course of this effort.

**4.1 Project Schedule and Site Work Activities**

The contractor shall maintain a detailed working schedule that facilitates the management of the project work and provides the capability for early identification of potential schedule impacts. The schedule shall include negotiated baseline dates and current schedule projections. The current schedule shall be maintained and updated at least monthly to accurately reflect program progress and provide realistic forecast projections. The contractor shall provide schedule updates at either a detailed level or a summary level as requested by the Contracting Officer (CO) or Project Manager (PM). Additionally, schedule updates that reflect actual schedule progress shall be submitted on AF IMT 3065 or as approved by the CO. Specific schedule and report requirements shall be identified in each TO. Unless approved by the Contracting Officer the Contractor shall not begin construction on site until the Work Plan and associated documents have been approved. For this delivery order the Project Superintendent may act as the Site Safety and Health Officer if they meet the requirements of EM385-1-1.

**4.1.1 Mobilization/Demobilization and Site Setup**

a) Includes travel and transport of labor, equipment, and materials to work site, in-processing, and site orientation.

b) Installation of storm water protection system and installation of temporary safety fencing.

c) The Contractor shall be responsible for all utility disconnect(s), along with cutting and capping of all utilities. The Contractor shall be responsible for coordinating a minimum of 28-days in advance, or in accordance with Base Civil Engineering requirement, of the milestone date required based upon demolition schedule. These milestones shall be documented within the Work Plan schedule, and shall be validated with the Installation at the time of the Kick-Off Meeting for Field Activities. Coordination with the Base Civil Engineering Project Manager is mandatory.

d) All electrical utility lines that are part of the scope shall be removed back to the nearest transformer or pull box.

e) The Contractor must provide, install, and maintain all necessary signs, lights, flares, barricades, markers, cones and other protective facilities and must take all necessary precautions for the protection and safety of the public traffic and site operations.

f) The Contractor shall secure the project site with temporary construction barrier along the project/construction boundary as the site topography allows if required by the Government Project Manager to keep pedestrians out of construction zone. All fences must be able to withstand heavy winds. Location of access gate(s) to the construction zone must be approved by the Contracting Officer prior to construction. For the purposes of determining the locations of temporary construction fencing or barricades, the Contractor must prepare a work plan showing the proposed locations for approval by the Contracting Officer and the installation prior to commencing demolition and construction.

g) The Contractor must coordinate all phases of work with the Contracting Officer and Base Civil Engineering Project Manager.

h) All-weather emergency vehicle access to the site must be provided and maintained at all times.

i) Contractor shall coordinate a Free Zone request for access through MSA I and II with the HAFB Civil Engineering Project Manager within 10-days of award. Contractor shall coordinate and submit a Free Zone Access List (FAL), in alphabetic order for approval by the 75th SFS within 30-day of award, and is responsible for verifying all information is true and correct prior to submitting the FAL. Access to MSA I and MSA II will not be granted until the Free Zone and FAL have been approved. The Government is not responsible to escort people whom are not on the FAL and any delays and associated costs related to that will be incurred by the contractor.

Contractor shall be responsible for establishing and maintaining the Free Zone route in accordance with AFI 31-101 during the duration of activity within MSA I and II. Free Zone Deficiencies shall be corrected by the contractor immediately upon notification from the Contracting Officer, Government Project Manager, or MSA personnel. Failure to correct deficiencies or abide by the Free Zone requirements can/will result in the Free Zone being terminated. The contractor shall be liable for schedule delays due to Free Zone deficiencies, Free Zone Route termination, and any personnel expelled from the MSA.

The Free Zone corridor shall contain signage from the entry control point (ECP) to the demolition work site. Signage shall also be installed from the demolition work site to the exit at the ECP. Mark the free zone boundary and ECP with elevated ropes, barriers, fencing, or other suitable materials. The contractor shall coordinate with the Government Project Manager to determine appropriate information to be displayed on the signage. Signage shall be installed along the route at intervals not to exceed 50-yards. Additional signs shall be installed at intersections with arrows directing personnel or as required by the Government Project Manager or Explosive Clear Zone Manager.

**4.3 Project Schedule and Planning Requirements.**

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| **TOTAL PERFORMANCE PERIOD** | **365 Calendar Days** |

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| **Item:** | **Remarks:** |
| **GENERAL PLANNING CONSIDERATIONS** |  |
| Project Funding: | CLIN execution is dependent on receipt of funds. |
| Contractor access, staging, storage areas, dumpster locations, chutes and covers for debris removal | Contractor shall submit a Laydown request for all staging areas, dumpster locations, construction trailers, and parking. The contractor/subcontractors will not mobilize until the laydown request has been approved. Wi-Fi routers used within the MSA shall be submitted to the Government Project Manager for Government review/approval. |
| Availability of Reference Materials: Site survey, Platt, Operation and maintenance manuals, building as-built drawings, HVAC control drawings/sequences, etc. | Available as-built drawings shall be provided post award. Requests must be made to the Government Project Manager. |

**4.4 Meeting and Conference Requirements**

The Contractor shall perform a site visit and attend the pre-performance conference, preconstruction conference, design review meetings and other meetings necessary to support construction activities. The Contractor also shall attend and support meetings and teleconferences to discuss technical or regulatory issues and project progress and status. The Contractor shall prepare, and submit for review, presentation materials and minutes for meetings and an agenda.

**4.5 Contractor Documentation**

The Contractor shall create and maintain a Master Document List and/or Submittal Register, i.e. AF Form 66, that includes all documents, whether the document is a deliverable or not, which are prepared during the course of this Task Order. The Master Document List and its documents shall be maintained in libraries readily available for submittal to the Government. All Material Submittals shall be accomplished in accordance with the instructions pertaining to AF Form 3000, Material Approval Submittal.

**4.6 Notification Requirements**

**4.6.1 Health and Safety**. The Contractor is required to notify the Contracting Officer and the Air Force Project Manager of critical issues that may affect the contract performance and/or human health and the environment. The types of issues that require notification include, but are not limited to, health risks, spills, changes in critical personnel, and finding unexploded ordnance (UXO). As an example, if UXO were discovered during field activities, the Contractor must immediately stop work, evacuate personnel a minimum of 300 feet around the UXO, do not use cell phones in the evacuated area, and report the discovery to each of the following - Explosives Ordnance Disposal (EOD) Flight at 801-777-5501, the facility Point of Contact (POC), Contracting Officer and the Air Force Project Manager.  The Contractor must implement appropriate safety precautions. Field activities shall not continue until clearance is received from the Contracting Officer. On critical issues, verbal notification should be made immediately, followed by written notification as soon as practical. Site Safety and Health Officer is required to be onsite during all construction activity.

**4.6.2 Special, Critical Point, & Milestone Inspections**. The contractor shall notify the government project manager for compliance at critical points in the schedule as identified below:

* Site Inspection: Includes field testing, samples of soils, concrete, asphalt, paints and coatings. Special Inspector should be involved as required.
* Site Utilities: Inspections required while the excavation is open for government owned and privatized utilities.

**4.7 Permits**

The contractor shall develop, coordinate, and assist in applying for and obtaining all, federal, state, local, and other applicable permits, access (including off-base easements and leases), agreements, licenses, and certifications required to perform and complete each TO. The Contractor shall maintain a library of these documents at the contractor’s site office on base as well as the corporate facility handling each TO. The Contractor shall comply with all applicable permit conditions

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| **ENVIRONMENTAL** | Remarks |
| Hazardous materials present(e.g. asbestos, PCBs, lead-based paint) | The Contractor is cautioned that materials in and around this project may contain asbestos or be coated with Lead-Based Paint (LBP) and Other Regulated Materials (ORM). The government will make every effort to locate and identify all Asbestos Containing Materials (ACM) and LBP prior to bidding; however, this is not always possible. These materials are often hidden and cannot be discovered until after demolition has begun. Failure of the government to identify all regulated materials in no way relieves the Contractor from his legal obligation to remove hazardous materials, comply with this Statement of Work, or abide by state and federal regulations regarding the handling of asbestos, lead, or other regulated material under this purchase order. |
| Known geo-technical issues (e.g. contaminated soil, ground water, etc.)  Historical Preservation  Clean Air Emissions Permits | No known issues. |

The Contractor shall maintain a library of these documents at the Contractor’s site office as well as the corporate facility handling each TO. The Contractor shall comply with all applicable permit conditions.

**4.8 Photo Documentation**

Photo documentation is prohibited within the Munition Storage Areas (MSA).

**5.0 SITE WORK**

The Contractor shall coordinate work site activities to ensure the protection of human health and the environment; the prevention of damage to property, utilities, materials, supplies, and equipment; and the avoidance of work interruptions.

The Contractor shall perform site work required under this Task Order incompliance with the following.

**5.1 Conservation**

Activities shall be planned and implemented in a manner that protects existing site utilities, structures, surface features, service operations, monitoring and other types of wells, and the general site environment. This includes the protection of trees, shrubs, and other vegetation not in the affected zone from dust damage, soil compaction, and physical contact with machines and equipment. If appropriate, the Contractor shall conserve uncontaminated topsoil by removal, storage, or redistribution. All reasonable measures shall be taken to minimize and suppress fugitive emissions of dust, vapors, and other site materials during site work. All fill materials shall be non-contaminated. The Contractor shall conduct all operations and activities with the intent of reducing the amount of pollution generated. Specific areas to be focused on are generation of solid waste, use of hazardous materials, use of ozone-depleting chemicals, generation of hazardous waste, and use of energy and water. The Contractor shall plan, construct, operate, maintain, optimize, and decommission systems necessary to control storm water run-on and runoff; and transport surface water drainage to a treatment plant, discharge location, or any other destination.

**5.2 Site Preparation**

The Contractor shall perform site work as necessary to prepare sites for construction activities. Security and access controls shall be implemented to prevent unauthorized entry to sites and to protect wildlife from site exposure. The Contractor shall survey existing utilities to determine adequacy and need for modifications to support site activities. The Contractor shall obtain appropriate approvals and shall construct connections or new systems for electrical power, water, sewer, gas distribution, telephone, and other utilities, as required, to accomplish the activities specified in each TO.

**5.3 Demobilization**

The Contractor shall decommission facilities as necessary, and restore the site. The Contractor shall remove any temporary facilities and implement erosion control measures such as seeding, mulching, sodding, and erosion control fabrics; restore roads, structures, and utilities; and plant trees, shrubbery, grasses, and other vegetation. The Contractor shall document and report on activities and train Government personnel to perform required maintenance, as requested.

**6.0 CONSTRUCTION DOCUMENT PREPARATION.**

**6.1 Real Property Documentation:** The contractor shall prepare Real Property Data utilizing the DD Form 1354. An Interim DD Form 1354 is required to be submitted by the contractor for each facility demolished at 80% completion but not later than 90 days prior to pre-final inspection. To assist the contractor the CE PM will provide corresponding facility numbers, RPUID and category codes for DD 1354 line items. The contractor shall furnish the required quantities and costs for each of the category codes as identified by the CE PM. Beneficial Occupancy shall not be granted until the contractor has submitted an acceptable Interim DD Form 1354. The Contractor shall provide a Final DD Form 1354 prior to project closeout and the final progress report being signed by the CE PM and Contracting.

**6.2 Specifications**

The specifications shall be complete and amplify all information shown on the drawings and include detailed requirements for materials and equipment. The specifications shall be descriptive in nature so as to permit full and free competition among bidders and equipment suppliers. Specifications in hard copy shall be on 8-1/2" x 11" paper. Specifications, including all technical and special conditions, shall utilize the Unified Facility Guide Specifications (UFGS) and Specs Intact. Free software is available at http://www.wbdg.org which are based on Construction Specifications Institute (CSI) format modified for Air Force construction and shall be prepared by the A-E to meet government standards. All paragraphs shall be numbered and lettered. References will be made to Federal Specifications, ASTMs, and trade standards when applicable to establish a uniform standard. All references to Military and Federal Specifications or Standards at the beginning of each section must be dated with the latest revisions annotated. All standards and specifications used in the text will be listed in the opening reference paragraph. Proprietary specifications are to be avoided. Whenever it is necessary to use a manufacturer's name to describe a type of product, at least three manufacturers shall be named, if possible, and shall include the words "or approved equal." When “brand name or equal” descriptions are necessary, specifications must clearly identify and describe the salient physical, functional, or performance characteristics of the brand-name items that are considered essential to satisfying the requirement. Materials, components, and equipment shall be designated for submittal to the Contracting Officer for approval. The term "Contracting Officer" shall be used in all specification sections in place of references to "owner" or "Architect /Engineer." The specifications shall include the Hill AFB General Conditions sections including:

SECTION 01 00 00 - GENERAL REQUIREMENTS

SECTION 01 32 00 - PROJECT SCHEDULE

SECTION 01 35 26 - GOVERNMENTAL SAFETY REQUIREMENTS

SECTION 01 57 20 - ENVIRONMENTAL PROTECTION

**7.0 SUBMITTAL REQUIREMENTS**

**7.1** The Contractor shall refer to and use the attached document labeled “Submittal

Schedule” for all submittals that are required.

**7.2** Submittals approved by the Air Force shall not relieve the Contractor from

responsibility for complying with the requirements of this contract (See FAR 52.236-5).

No substitutions for approved items, which meet contract requirements, will be allowed

without approval of the Contracting Officer. If submittals show variations from the

contract requirements, the Contractor shall describe such variations in writing at the time

of submission.

**7.3** The government will within 14 calendar days return a minimum of one copy of the

submittal marked to indicate approval or disapproval or approved as noted. The

Contractor shall make any corrections indicated on the submittals. If the Contractor

considers any correction to constitute a change to the contract drawings or specifications,

written notice will be given to the Contracting Officer. Disapproved items will require

resubmission for approval within 7 calendar days of Contractor’s receipt. The Contractor

will not be allowed to claim for time because of disapproved submittals.

8.4 Submittals approved by the Air Force shall not relieve the Contractor from

responsibility for complying with the requirements of this contract (See FAR 52.236-5).

No substitutions for approved items, which meet contract requirements, will be allowed

without approval of the Contracting Officer. If submittals show variations from the

contract requirements, the Contractor shall describe such variations in writing at the time

of submission.

**9.0 Standard Design Criteria:** The references listed below include the common criteria that may be applicable. Other technical documents and publications, which are deemed applicable for a particular project, will be identified in the Statement of Work. Use the latest edition of references unless specified otherwise.

**Building Codes:**

International Building Code

International Mechanical Code

International Plumbing Code

International Energy Conservation Code

International Fuel Gas Code

Fire Safety Code, NFPA 1

Life Safety Code, National Fire Protection Association, NFPA 101

National Electric Code, NFPA 70

National Electric Safety Code, ANSI C2

Council of American Building Officials (CABO) One and Two Family Dwelling Code

**Design Standards:**

Base Facility Design Standard

Base Architectural Compatibility Standard

Tab K, Telecommunications Installation Criteria for Facility Design and Renovation

Air Installation Compatible Use Zone (AICUZ), Hill AFB, Amended April 1982

ASCE/SEI 7-05 Minimum Design Loads for Buildings and Other Structures

ASHRAE Standard 62.1-2007 2010, Ventilation for Acceptable Indoor Air Quality

ASHRAE Standard 90.1-2007, Energy Standard for Buildings Except Low Rise Residential Buildings

Illuminating Engineering Society of North America, Reference and Application Lighting Handbook, 2008

ICSSC RP6 - Standards of Seismic Safety for Existing Federally Owned and Leased Buildings

Architectural Barriers Act (ABA) Accessibility Standard for Department of Defense Facilities

**Regulations:**

10 CFR 435 Energy Conservation Voluntary Performance Standards for New Buildings (Mandatory for Federal Buildings)

Energy Policy Act

**Air Force Engineering Technical Letters:**

Current AF ETLs are found on the <http://www.wbdg.org/> web site as applicable.

See Appendix 1.

**Air Force Instruction (AFI):**

AFI 32-10141, “Planning and Programming Fire Safety Deficiency Correction Projects”, attachment 3

**Air Force Design Guides (AFDG) and Standards:**

Current AFDGs as found on the <http://www.wbdg.org/> web site as applicable.

Temporary Lodging Facilities Design Guide

USAF Dining Facilities Design Guide

US Air Force Interior Design Standards

**Military Handbook:**

MIL-HDBK 1004/6 Lightning Protection 1988

MIL HDBK 1013-1A, Design Guidelines for Physical Security of Facilities

MIL HDBK 1013-10, Design Guidelines for Security Fencing, Gates, Barriers, and Guard Facilities

**Air Force Handbook:**

Air Force Handbook 32-1084, Facility Requirements

**Unified Facilities Criteria:**

Current AF UFCs as found on the <http://www.wbdg.org/> web site as applicable.

See Appendix 2

Other:

DD Form 1354, “Transfer and Acceptance of DoD Real Property”

DD Form 1354 Master Checklist Excel Spread Sheet

APPENDIX 1- ENGINEERING TECHNICAL LETTERS

(ETL) 1/15/13

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| **Number** | **Title** | **Status** | **Date** |
| 82-1 | Energy Budget Figures | Superseded by ETLs 83-10, 86-  1, 87-4 | 10 Nov 82 |
| 82-2 | Energy Efficient Equipment | Superseded by AFEPPM 88-10 | 10 Nov 82 |
| 82-3 | Computer Energy Analyses – New Facilities | Superseded by ETLs 83-5, 84-2 | 10 Nov 82 |
| 82-4 | Energy Conservation Investment Program  (ECIP) | Superseded by ETL 84-7 | 10 Nov 82 |
| 82-5 | Solar Applications | Superseded by ETLs 84-1, 86-  13, 86-14 | 10 Nov 82 |
| 82-6 | Normal Passive Solar Applications | Canceled | 30 Dec 82 |
| 82-7 | Unique Passive Solar Applications | Canceled | 30 Nov 82 |
| 83-1 | Design of Control Systems for HVAC | Superseded by ETL 83-1 (Change 1) | 16 Feb 83 |
| 83-1 (Chg 1) | U.S. Air Force Standardized Heating, Ventilating & Air Conditioning (HVAC) Control Systems | Superseded by UFC 3-410-02 | 22 Jul 87 |
| 83-2 | Supplemental Design Guidance to AF Standards – Pressurized Hydrant Fueling Systems | Superseded by ETL 84-3 | 16 Feb 83 |
| 83-3 | Interior Wiring Systems, AFM 88-15, Para  7-3 | Canceled | 2 Mar 83 |
| 83-4 | EMCS Data Transmission Media  Considerations | Canceled | 3 Apr 83 |
| 83-5 | Computer Energy Analyses | Superseded by ETL 84-2 | 5 May 83 |
| 83-6 | Solar Applications in Medical Facilities | Canceled | 24 May 83 |
| 83-7 | Plumbing – AFM 83-8, Chapter 4 | Canceled | 30 Aug 83 |
| 83-8 | Use of Air-to-Air Unitary Heat Pumps | Canceled | 15 Sep 83 |
| 83-9 | Insulation | Superseded by ETL 94-4 | 14 Nov 83 |
| 83-10 | Energy Budget Figure (EBF) | Superseded by ETL 86-1 | 28 Nov 83 |
| 84-1 | Solar Applications | Superseded by ETL 86-14 | 18 Jan 84 |
| 84-2 | Computer Energy Analysis | Superseded by ETL 94-4 | 27 Mar 84 |
| 84-3 | AF Petroleum Fuel Facility Criteria and  Standards | Canceled | 21 Mar 84 |
| 84-4 | Meters in New Facilities | Superseded by ETLs 86-7, 86-  15, 87-5 | 10 Apr 84 |
| 84-5 | Heat Distribution Systems Outside of  Buildings | Superseded by ETLs 84-8, 86-  11, 86-18, 88-6 | 7 May 84 |
| **Number** | **Title** | **Status** | **Date** |
| 84-7 | MCP Energy Conservation Investment  Program (ECIP) | Superseded by AFEPPM 96-4 | 13 Jun 84 |
| 84-8 | Heat Distribution Systems Outside of  Buildings | Superseded by ETL 86-11 | 19 Jun 84 |
| 84-9 | TEMPEST/EMP Shielding for Facilities | Superseded by ETL 88-7 | 5 Jul 84 |
| 84-10 | AF Building Construction and the Use of  Termiticides | Canceled | 1 Aug 84 |
| 86-1 | Energy Budget Figures (EBFs) for Facilities in the Military Construction Program | Superseded by ETL 87-7 | 3 Feb 86 |
| 86-2 | Energy Management and Control Systems  (EMCS) | Canceled | 5 Feb 86 |
| 86-3 | Paints and Protective Coatings | Superseded by ETL 86-4 | 21 Feb 86 |
| 86-4 | Coating Systems and Specifications for  Exterior and Interior of Steel Tanks | Canceled | 12 May 86 |
| 86-5 | Fuels Use Criteria for Air Force  Construction | Canceled | 22 May 86 |
| 86-6 | Heat Distribution Systems Outside of  Buildings | Superseded by ETLs 86-11, 86-  18, 88-6 | 3 Jun 86 |
| 86-7 | Utility Meters in New and Renovated  Facilities | Superseded by ETL 86-15 | 3 Jun 86 |
| 86-8 | Aqueous Film Forming Foam Waste  Discharge Retention and Disposal |  | 4 Jun 86 |
| 86-9 | Lodging Facility Design Guide | Superseded by AFCEE Temporary Lodging Facilities Design Guide | 4 Jun 86 |
| 86-10 | Antiterrorism Planning and Design  Guidance | Superseded by AFCEE Design Guide, Installation Force Protection Guide | 13 Jun 86 |
| 86-11 | Heat Distribution Systems Outside of  Buildings | Superseded by ETL 88-6 | 3 Jul 86 |
| 86-12 | Prewired Workstations and Systems  Furniture | Superseded by ETL 90-2 | 3 Jul 86 |
| 86-13 | Solar Applications | Superseded by ETL 86-14 | 18 Aug 86 |
| 86-14 | Solar Applications | Canceled | 15 Oct 86 |
| 86-15 | Utility Meters in New and Renovated  Facilities | Superseded by ETL 87-5 | 13 Nov 86 |
| 86-16 | Direct Digital Control of Heating, Ventilation, and Air Conditioning Systems | Superseded by UFC 3-410-02 | 9 Dec 86 |
| 86-17 | Power Conditioning and Continuation  Interfacing Equipment (PCCIE) | Superseded by ETL 89-6 | 17 Dec 86 |
| 86-18 | Heat Distribution Systems Outside of  Buildings | Superseded by ETL 88-6 | 18 Dec 86 |

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| **Number** | **Title** | **Status** | **Date** |
| 87-1 | Lead Ban Requirements of Drinking Water | Superseded by AFI 32-1067 | 15 Jan 87 |
| 87-2 | Volatile Organic Compounds | Canceled | 4 Mar 87 |
| 87-3 | Cathodic Protection | Superseded by ETLs 87-6, 88-5 | 12 Mar 87 |
| 87-4 | Energy Budget Figures (EBFs) for Facilities in the Military Construction Program | Superseded by ETL 94-4 | 13 Mar 87 |
| 87-5 | Utility Meters in New and Renovated  Facilities | Superseded by ETL 94-2 | 13 Jul 87 |
| 87-6 | Cathodic Protection | Superseded by ETL 88-5 | 21 Aug 87 |
| 87-7 | 1987 Energy Prices and Discount Factors for Life-Cycle Cost Analysis | Superseded by ETL 89-1 | 14 Oct 87 |
| 87-8 | Built-Up Roof Repair/Replacement Guide  Specifications | Superseded by ETL 90-1 | 19 Oct 87 |
| 87-9 | Prewiring | Superseded by ETL 02-12 | 21 Oct 87 |
| 88-1 | Standard Guidelines for Submission of Facility Operating and Maintenance Manuals | Superseded by ETL 89-2 | 5 Jan 88 |
| 88-2 | Photovoltaic Applications | Superseded by AFCESA Tech Data Bulletin, Photovoltaic Concept, Design, and Application | 21 Jan 88 |
| 88-3 | Design Standards for Critical Facilities | Superseded by AFMAN 32-  1146(I) | 15 Jun 88 |
| 88-4 | Reliability & Maintainability (R&M) Design  Checklist | Superseded by ETL 01-1 | 24 Jun 88 |
| 88-5 | Cathodic Protection | Superseded by ETL 91-6 | 2 Aug 88 |
| 88-6 | Heat Distribution Systems Outside of  Buildings | Superseded by AFI 32-1068 | 1 Aug 88 |
| 88-7 | TEMPEST and High-Altitude Electromagnetic Pulse (HEMP) Protection for Facilities | Superseded by ETLs 90-3, 91-2 | 24 Aug 88 |
| 88-8 | Chlorofluorocarbon (CFC) Limitation in Heating, Ventilating, and Air-Conditioning (HVAC) Systems | Superseded by ETL 91-7 | 4 Oct 88 |
| 88-9 | Radon Reduction in New Facility  Construction | Canceled | 7 Oct 88 |
| 88-10 | Prewired Work Station Guide Specifications | Canceled | 29 Dec 88 |
| 89-1 | 1988 Energy Prices and Discount Factors for Life-Cycle Cost Analysis | Superseded by ETL 90-4 | 6 Feb 89 |
| 89-2 | Standard Guidelines for Submission of Facility Operating and Maintenance Manuals |  | 23 May 89 |

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| **Number** | **Title** | **Status** | **Date** |
| 89-3 | Fire Protection Engineering Criteria for  Electronic Equipment Installations | Superseded by ETL 93-5 | 9 Jun 89 |
| 89-4 | Systems Furniture Guide Specification | Canceled | 6 Jul 89 |
| 89-6 | Power Conditioning and Continuation Interfacing Equipment (PCCIE) in the Military Construction Program (MCP) | Canceled | 7 Sep 89 |
| 89-7 | Design of Air Force Courtrooms | Superseded by Air Force Base  Legal Facilities Design Guide | 29 Sep 89 |
| 90-1 | Built-Up Roof (BUR) Repair/Replacement  Guide Specification | Superseded by UFGS 07 51  13, Built-up Asphalt Roofing | 23 Jan 90 |
| 90-2 | General Policy for Prewired Workstations and Systems Furniture | Canceled | 26 Jan 90 |
| 90-3 | TEMPEST Protection for Facilities | Canceled |  |
| 90-4 | 1990 Energy Prices and Discount Factors for Life-Cycle Cost Analysis | Canceled | 24 May 90 |
| 90-5 | Fuel and Lube Oil Bulk Storage Capacity for  Emergency Generators | Superseded by AFI 32-1062, Electrical Power Plants and Generators | 26 Jul 90 |
| 90-6 | Electrical System Grounding, Static  Grounding and Lightning Protection | Canceled | 3 Oct 90 |
| 90-7 | Air Force Interior Design Policy | Canceled | 12 Oct 90 |
| 90-8 | Guide Specifications for Ethylene Propylene  Diene Monomer (EPDM) Roofing | Superseded by UFGS 07 53  23, Ethylene Propylene Diene  Monomer Roofing | 17 Oct 90 |
| 90-9 | Fire Protection Engineering Criteria for Aircraft Maintenance, Servicing, and Storage Facilities | Superseded by ETL 96-1 | 2 Nov 90 |
| 90-10 | Commissioning of Heating, Ventilating, and Air Conditioning (HVAC) Systems Guide Specification | Canceled | 17 Oct 90 |
| 91-1 | Fire Protection Engineering Criteria - Testing Halon Fire Suppression Systems |  | 2 Jan 91 |
| 91-2 | High Altitude Electromagnetic Pulse  (HEMP) Hardening in Facilities | Canceled | 4 Mar 91 |
| 91-3 | Water Supply for Fire Protection | Superseded by MIL-HDBK-  1008B, Jan 94 | 14 Jun 91 |
| 91-4 | Site Selection Criteria for Fire Protection  Training Areas |  | 14 Jun 91 |
| 91-5 | Fire Protection Engineering Criteria – Emergency Lighting and Marking of Exits | Superseded by ETL 94-5 |  |

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| **Number** | **Title** | **Status** | **Date** |
| 91-6 | Cathodic Protection | Superseded by MIL-HDBK-  1136 (now UFC 3-570-06) and  MIL-HDBK-1004/10 (now UFC  3-570-02N) | 3 Jul 91 |
| 91-7 | Chlorofluorocarbon (CFC) Limitation in Heating, Ventilating, and Air-Conditioning (HVAC) Systems | Canceled | 21 Aug 91 |
| 91-8 | Facility Electrical Power for Aircraft Ground Support Equipment (Hangars, Aprons, and Ramps) | Canceled | 24 Sep 91 |
| 93-1 | Construction Signs | Superseded by ETL 02-9 | 11 Mar 93 |
| 93-2 | Dormitory Criteria for Humid Areas | Superseded by ETL 03-2 | 13 Jul 93 |
| 93-3 | Inventory, Screening, Prioritization, and Evaluation of Existing Buildings for Seismic Risk | Canceled | 18 Aug 93 |
| 93-4 | Fire Protection Engineering Criteria - Automatic Sprinkler Systems in Military Family Housing (MFH) | Superseded by UFC 3-600-01 | 11 Aug 93 |
| 93-5 | Fire Protection Engineering Criteria - Electronic Equipment Installations | Superseded by ETL 01-18 |  |
| 94-1 | Standard Airfield Pavement Marking  Schemes | Superseded by ETL 04-2 | 5 Apr 94 |
| 94-2 | Utility Meters in New and Renovated  Facilities | Superseded by UFC 3-400-01 | 10 Jun 94 |
| 94-3 | Air Force Carpet Standard | Superseded by ETL 00-6 | 10 Jun 94 |
| 94-4 | Energy Usage Criteria for Facilities in the  Military Construction Program | Superseded by UFC 3-400-01 | 19 Aug 94 |
| 94-5 | Fire Protection Engineering Criteria and  Technical Guidance | Superseded by ETL 99-4 | 8 Nov 94 |
| 94-6 | Fire Protection Engineering Criteria and Technical Guidance - Removal of Halogenated Agent Fire Suppression Systems |  | 5 Dec 94 |
| 94-7 | EPA Guideline Items in Construction and  Other Civil Engineering Specifications | Superseded by ETL 00-1 | 14 Dec 94 |
| 94-8 | Design in Metric | Canceled | 14 Dec 94 |
| 94-9 | Silicone Joint Sealants for Pavements | Superseded by ETL 96-4 | 14 Dec 94 |
| 95-1 | Halon 1301 Management Planning  Guidance |  | 12 May 95 |
| 95-2 | Preparation of Requirements and Management Plan (RAMP) Packages for Military Construction Program Projects | Superseded by AFCEE *Project Managers Guide For Design And Construction* | 26 Oct 95 |

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| **Number** | **Title** | **Status** | **Date** |
| 95-3 | Planning Guide for Installation of Ultra-High- Molecular-Weight (UHMW) Polyethylene Panels Under Aircraft Arresting System Cables (CONUS Installations) | Superseded by AFI 32-1043 | 26 Oct 95 |
| 95-4 | Mandatory Energy/Water Performance Standards for Replaced or Modified Equipment | Superseded by UFC 3-400-01 | 31 Oct 95 |
| 96-1 | Fire Protection Engineering Criteria - New  Aircraft Facilities | Superseded by ETL 98-7 | 22 Jan 96 |
| 96-2 | Elimination of Liquid Polychlorinated  Biphenyls (PCBs) Prioritization Guidance | Canceled | 2 May 96 |
| 96-3 | Typical Statement of Work for Airfield  Pavement Condition Survey | Canceled | 26 Jun 96 |
| 96-4 | Temporary Joint Sealing Details and  Procedures for Pavements |  | 9 Jul 96 |
| 96-5 | Hangar Concrete Floor Reflective Coating  Criteria |  | 26 Aug 96 |
| 97-1 | National Primary Drinking Water Regulations: Lead and Copper Rule (LCR) Corrosion Control Desk-Top Report Statement of Work (SOW) | Canceled | 29 Jan 97 |
| 97-2 | Maintenance and Repair of Rigid Airfield  Pavement Surfaces, Joints, and Cracks |  | 28 Jul 97 |
| 97-3 | Base Course Proof Rolling Requirements |  | 25 Mar 97 |
| 97-4 | Expedient Trim Pad Anchoring | Superseded by ETL 06-4 | 2 Jun 97 |
| 97-5 | Proportioning Concrete Mixtures with Graded Aggregates for Rigid Airfield Pavements |  | 25 Apr 97 |
| 97-8 | Building Manager Energy Conservation  Handbook | Superseded by ETL 98-4 | 9 Jun 97 |
| 97-9 | Criteria and Guidance for C-17 Contingency  Operations on Semi-Prepared Airfields |  | 25 Nov 97 |
| 97-10 | Structural Evaluation of Existing Buildings for Seismic and Wind Loads | Superseded by ETL 00-5 | 30 Oct 97 |
| 97-11 | Mitigation of Non-Structural Seismic and High Wind Deficiencies for Existing Buildings | Superseded by ETL 00-5 | 30 Oct 97 |
| 97-12 | Mitigation of Existing Building Structural Deficiencies for Seismic and High Wind Loads | Superseded by ETL 00-5 | 30 Oct 97 |
| 97-13 | Dormitory Ventilation and Exhaust System  Design Criteria | Superseded by ETL 03-2 | 7 Aug 97 |

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| **Number** | **Title** | **Status** | **Date** |
| 97-14 | Procedures for Airfield Pavement Condition  Index Surveys | Superseded by UFCs 3-270-  05/06 | 15 Sep 97 |
| 97-16 | Pavement Marking Systems for Low  Temperature Applications |  | 25 Nov 97 |
| 97-17 | Paint and Rubber Removal from Roadway and Airfield Pavements |  | 1 Dec 97 |
| 97-18 | Guide Specification for Airfield and  Roadway Marking |  | 5 Dec 97 |
| 97-22 | Competing Facility Keying Systems |  | 5 Dec 97 |
| 98-1 | Design Criteria for Aggregate Surfaced  Helicopter Slide Areas and Heliports |  | 14 Jan 98 |
| 98-2 | Clean Air Act Amendments Requirements for Electric Generators and Power Plants | Canceled | 1 Jun 98 |
| 98-4 | Building Manager Energy Conservation  Handbook |  | 16 Jan 98 |
| 98-5 | C-130 and C-17 Contingency and Training  Airfield Dimensional Criteria | Superseded by ETL 04-7 | 19 Oct 98 |
| 98-7 | Fire Protection Engineering Criteria - New  Aircraft Facilities | Superseded by ETL 01-2 | 29 Apr 98 |
| 98-8 | Fire Protection Engineering Criteria – Existing Aircraft Facilities |  | 25 Jun 98 |
| 98-10 | Installation and Operation Guide for the Stanley Hydraulic Power Unit (HPU) (M (MAAS) Upgrade) |  | 5 Nov 98 |
| 99-1 | Treatment and Disposal of Aircraft  Washwater Effluent |  | 7 Jan 99 |
| 99-4 | Fire Protection Engineering Criteria - Emergency Lighting and Marking of Exits |  | 9 Nov 99 |
| 99-6 | Programming Fuels Projects | Superseded by ETL 01-15 | 10 Dec 99 |
| 99-7 | Airfield Pavement Condition Index Survey | Superseded by ETL 02-13 | 27 Sep 99 |
| 00-1 | EPA Guideline Items in Construction and  Other Engineering Specifications |  | 5 Jan 00 |
| 00-2 | Inspection and Testing of Trim Pad  Anchoring Systems |  | 1 Feb 00 |
| 00-4 | Small Arms Range Design and Construction | Superseded by ETL 01-13 |  |
| 00-5 | Seismic Design for Buildings and Other  Structures | Canceled | 5 Jun 00 |
| 00-6 | Air Force Carpet Standard | Superseded by ETL 03-3 | 11 May 00 |
| 00-7 | Fire Protection Engineering Criteria — Correlation of US and Host Nation Codes and Criteria |  | 10 May 00 |

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| **Number** | **Title** | **Status** | **Date** |
| 00-8 | Airfield Pavement Design Criteria | Superseded by UFC 3-260-02 | 28 Apr 00 |
| 00-9 | Airblast Protection Retrofit for Unreinforced  Concrete Masonry Walls |  | 8 Aug 00 |
| 00-12 | Fire Protection Engineering Criteria — Conversion of Fire Alarm Radio Systems to Narrowband Technology | Superseded by ETL 03-5 | 19 Dec 00 |
| 01-1 | Reliability and Maintainability (R&M) Design  Checklist |  | 11 Oct 01 |
| 01-2 | Fire Protection Engineering Criteria - New  Aircraft Facilities | Superseded by ETL 02-15 | 1 Apr 01 |
| 01-4 | Fire Protection Engineering Criteria - Protective and Hardened Aircraft Shelters |  | 31 Dec 01 |
| 01-5 | Jet Engine Thrust Standoff Requirements for Airfield Asphalt Edge Pavements | Superseded by ETL 07-3 | 24 May 01 |
| 01-6 | Contingency Airfield Pavement  Specifications | Superseded by ETL 09-2 | 12 Jun 01 |
| 01-7 | Large Aggregate Asphalt Mixtures |  | 5 Jun 01 |
| 01-8 | Resin Modified Pavement Design and  Application Criteria |  | 25 Sep 01 |
| 01-9 | Procedures to Retard Reflective Cracking |  | 17 Jul 01 |
| 01-10 | Design and Construction of High-Capacity  Trim Pad Anchoring Systems |  | 24 Jul 02 |
| 01-13 | Small Arms Range Design and Construction | Superseded by ETL 02-11 | 31 Dec 01 |
| 01-15 | Programming Fuels Projects | Canceled | 5 Jun 01 |
| 01-18 | Fire Protection Engineering Criteria – Electronic Equipment Installations |  | 24 Oct 01 |
| 01-20 | Guidelines for Airfield Frangibility Zones | Superseded by UFC 3-260-01 | 17 Nov 08 |
| 02-1 | Design of Drainage Structures for Heavy  Aircraft Loading | Superseded by UFC 3-260-01 | 1 Aug 02 |
| 02-4 | Airblast Protection Polymer Retrofit of  Unreinforced Concrete Masonry Walls |  | 12 Jun 02 |
| 02-5 | Guidance for Energy Savings Performance  Contracts | Superseded by ETL 04-12 | 31 Oct 02 |
| 02-7 | Preventing Concrete Deterioration Under B-  1 Aircraft |  | 7 Aug 02 |
| 02-8 | Silicone Joint Sealant Specification for  Airfield Pavements |  | 5 Sep 02 |
| 02-9 | Construction Signs |  | 15 May 02 |
| 02-10 | Airblast Protection Retrofit of Lightweight  Manufactured Structures |  | 12 Jun 02 |
| 02-11 | Small Arms Range Design and Construction | Superseded by ETL 05-5 | 22 Nov 02 |
| **Number** | **Title** | **Status** | **Date** |
| 02-12 | Communications and Information System  Criteria for Air Force Facilities |  | 27 Jun 02 |
| 02-13 | Pavement Engineering Assessment  Standards | Superseded by ETL 04-9 | 5 Sep 02 |
| 02-14 | Determining the Need for Runway Rubber  Removal | Superseded by ETL 04-10 | 4 Sep 02 |
| 02-15 | Fire Protection Engineering Criteria – New  Aircraft Facilities |  | 3 Dec 02 |
| 02-16 | Design, Construction, Maintenance, and Evaluation of the Pegasus Glacial Ice Runway for Heavy Wheeled Aircraft Operations |  | 16 Oct 02 |
| 02-17 | Use of Non-Potable Water to Replace  Potable Water | Superseded by ETL 08-10 | 25 Oct 02 |
| 02-19 | Airfield Pavement Evaluation Standards and  Procedures |  | 12 Nov 02 |
| 03-1 | Storm Water Construction Standards |  | 24 Mar 03 |
| 03-2 | Design Criteria for Prevention of Mold in Air  Force Facilities | Superseded by ETL 04-3 | 12 Aug 03 |
| 03-3 | Air Force Carpet Standard | Superseded by ETL 07-4 | 16 Apr 03 |
| 03-4 | Alternate Fuels E85 and B20 |  | 21 Oct 03 |
| 03-5 | Converting Civil Engineering Radio Frequency Devices to Narrowband Technology |  | 21 Oct 03 |
| 03-8 | Rejuvenation of Hot-Mix Asphalt (HMA) Pavements | Superseded by UFGS 32 01 22 | 19 Dec 03 |
| 04-2 | Standard Airfield Pavement Marking  Schemes |  | 19 Jul 04 |
| 04-3 | Design Criteria for Prevention of Mold in Air  Force Facilities |  | 6 Apr 04 |
| 04-4 | Trenchless Technology (TT) for Crossing  Air Force Pavements |  | 31 Mar 04 |
| 04-5 | Design Recommendations for Potable  Water System Security (FOUO) |  | 20 Aug 04 |
| 04-6 | Inspection of Drainage Systems |  | 8 Jan 04 |
| 04-7 | C-130 and C-17 Landing Zone (LZ) Dimensional, Marking, and Lighting Criteria | Superseded by ETL 09-6 | 29 Mar 04 |
| 04-8 | Stone Matrix Asphalt (SMA) for Air Force  Pavements | Superseded by UFGS 32 13 17 | 9 Jan 04 |
| 04-9 | Pavement Engineering Assessment (EA) Standards |  | 29 Apr 04 |

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| **Number** | **Title** | **Status** | **Date** |
| 04-10 | Determining the Need for Runway Rubber  Removal |  | 12 May 04 |
| 04-11 | Recommendations for Incorporating Water System Emergency Response Plan (ERP) Requirements (FOUO) | Superseded by ETL 12-1 | 18 Oct 04 |
| 04-12 | Energy Savings Performance Contracts  (ESPC) | Superseded by ETL 06-8 | 13 Oct 04 |
| 04-15 | Electrical Safety Guidance | Superseded by UFC 3-560-01 | 30 Sep 04 |
| 05-1 | Use of Acrylic Diffusers with Metal Halide  Fixtures |  | 5 Feb 05 |
| 05-2 | Design, Construction, Maintenance, and Evaluation of the McMurdo Sound Sea Ice Runway for Heavy Wheeled Aircraft Operations | Superseded by ETL 06-7 | 6 Jun 05 |
| 05-5 | Small Arms Range Design and Construction | Superseded by ETL 06-11 | 8 Nov 05 |
| 05-8 | Use of Off-the-Shelf Concrete Admixtures as Cold Weather Admixture Systems (CWAS) |  | 4 Nov 05 |
| 06-1 | Arc Flash Personal Protective Equipment (PPE) Requirements for High-Voltage Overhead Line Work at 69 kV (nominal) or Less | Superseded by ETL 06-9 | 5 Jan 06 |
| 06-2 | Alkali-Aggregate Reaction in Portland  Cement Concrete (PCC) Airfield Pavements |  | 9 Feb 06 |
| 06-4 | Expedient Trim Pad Anchoring Systems |  | 8 May 06 |
| 06-6 | Interim Swaged End Inspection Criteria for  Aircraft Arresting System (AAS) Pendants |  | 16 Jun 06 |
| 06-7 | Design, Construction, Maintenance, and Evaluation of the McMurdo Sound Sea Ice Runway for Heavy Wheeled Aircraft Operations | Superseded by ETL 07-12 | 19 Jul 06 |
| 06-8 | Energy Savings Performance Contracts  (ESPC) | Superseded by ETL 08-5 | 19 Sep 06 |
| 06-9 | Arc Flash Personal Protective Equipment (PPE) Requirements for High-Voltage Overhead Line Work at 69 kV (nominal) or Less | Superseded by UFC 3-560-01 | 15 Aug 06 |
| 06-11 | Small Arms Range Design and Construction | Superseded by ETL 08-11 | 28 Nov 06 |
| 07-1 | Design Criteria for Underground Electrical Distribution Systems Using Directional Boring (DB) Installation Methods for Installing High Density Polyethylene Electrical (HDPE) Conduit |  | 9 Feb 07 |
| **Number** | **Title** | **Status** | **Date** |
| 07-2 | Anchoring a Fiberglass Mat Assembly in  Asphalt Concrete (AC) Pavement |  | 19 Dec 07 |
| 07-3 | Jet Engine Thrust Standoff Requirements for Airfield Asphalt Edge Pavements |  | 14 Feb 07 |
| 07-4 | Air Force Carpet Standard |  | 28 Mar 07 |
| 07-5 | Bridge Inspections | Superseded by UFC 3-310-08 | 18 Apr 07 |
| 07-6 | Risk Assessment Procedure for Recycling Portland Cement Concrete (PCC) Suffering from Alkali-Silica Reaction (ASR) in Airfield Pavement Structures |  | 14 Aug 07 |
| 07-7 | Compact Fluorescent Lamp (CFL) Applications (FOUO) |  | 6 Nov 07 |
| 07-8 | Spall Repair of Portland Cement Concrete (PCC) Airfield Pavements in Expeditionary Environments |  | 27 Jul 07 |
| 07-10 | Evaluation and Restoration of Folded  Fiberglass Mats (FFM) |  | 19 Dec 07 |
| 07-11 | Evaluation of Aged Asphalt Concrete  Surfaces | Superseded by ETL 08-1 | 25 Sep 07 |
| 07-12 | Design, Construction, Maintenance, and Evaluation of the McMurdo Sound Sea Ice Runway for Heavy Wheeled Aircraft Operations |  | 24 Sep 07 |
| 08-1 | Evaluation Criteria for Aged Asphalt  Concrete (AC) Surfaces |  | 8 Feb 08 |
| 08-2 | Testing Protocol for Rigid Spall Repair  Materials |  | 30 Jan 08 |
| 08-3 | Crater Repair Methods Using Rapid-Setting  (RS) Materials (FOUO) |  | 4 Apr 08 |
| 08-4 | Testing Protocol for Polymeric Spall Repair  Materials |  | 10 Apr 08 |
| 08-5 | Energy Savings Performance Contracts | Superseded by ETL 11-24 | 14 Apr 08 |
| 08-6 | Design of Surface Drainage Facilities |  | 5 Feb 08 |
| 08-10 | Alternative Water Sources - Use of Non- Potable Water |  | 10 Jul 08 |
| 08-11 | Small Arms Range Design and Construction | Superseded by ETL 11-18 | 20 Oct 08 |
| 08-13 | Incorporating Sustainable Design and Development (SDD) and Facility Energy Attributes in the Air Force Construction Program |  | 14 Sep 08 |
| 08-14 | Structural Evaluation Procedure for  Stabilized Soil-Surfaced Airfields |  | 28 Aug 08 |

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| **Number** | **Title** | **Status** | **Date** |
| 08-15 | Utilities Privatization (UP) Service Contract  Post-Award Management | Superseded by Air Force  Utilities Privatization Playbook | 14 Sep 08 |
| 09-1 | Airfield Planning and Design Criteria for  Unmanned Aircraft Systems (UAS) |  | 28 Sep 09 |
| 09-2 | Contingency Airfield Pavement  Specifications |  | 11 Mar 09 |
| 09-3 | Chemical Dust Control for Contingency Roads, Base Camps, Helipads, and Airfields |  | 3 Mar 09 |
| 09-4 | Fire Protection Engineering Criteria – Expeditionary and Force Projection Operational Theaters |  | 9 Feb 09 |
| 09-6 | C-130 and C-17 Landing Zone (LZ) Dimensional, Marking, and Lighting Criteria (FOUO) |  | 17 Aug 09 |
| 09-8 | Resource Efficiency Manager (REM) Tracking and Results Verification | Canceled | 3 Mar 09 |
| 09-9 | Connection Methods For Standby  Generators - 600 Volts or Less | Superseded by ETL 10-7 | 18 May 09 |
| 09-10 | Aurora Electrical System Vulnerability  Assessment and Mitigation Actions (FOUO) |  | 16 Apr 09 |
| 09-11 | Civil Engineering Industrial Control System  Information Assurance Compliance | Superseded by ETL 11-1 | 26 Oct 09 |
| 09-12 | Use of Light-Emitting Diode (LED) Fixtures in Airfield Lighting Systems on Air Force Installations and Expeditionary Locations | Superseded by ETL 10-15 | 18 Aug 09 |
| 09-13 | Irrigation of Installation Turfgrass and  Landscaping |  | 23 Oct 09 |
| 09-15 | External Foam Insulation of Temporary  Structures | Superseded by ETL 09-18 | 19 Oct 09 |
| 09-18 | External Foam Insulation of Temporary  Structures | Superseded by ETL 10-6 | 18 Nov 09 |
| 10-2 | Light-Emitting Diode (LED) Fixture Design and Installation Criteria for Interior and Exterior Lighting Applications | Superseded by ETL 10-18 | 18 Mar 10 |
| 10-3 | Procedures and Acceptance Criteria for Protective Materials Resistant to 155 mm and Smaller Fragmenting Munitions |  | 1 Mar 10 |
| 10-4 | Joint Strike Fighter (JSF) F-35B Vertical  Landing (VL) Pad Design (FOUO) | Canceled | 8 Jul 10 |
| 10-5 | Self-Help Pest and Vegetation Management  Program |  | 30 Aug 10 |

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| **Number** | **Title** | **Status** | **Date** |
| 10-6 | External Foam Insulation of Temporary  Structures |  | 22 Feb 10 |
| 10-7 | Connection Methods For Standby  Generators - 600 Volts or Less |  | 3 Mar 10 |
| 10-15 | Use of Light-Emitting Diode (LED) Fixtures in Airfield Lighting Systems on Air Force Installations and Expeditionary Locations | Superseded by ETL 11-13 | 24 Sep 10 |
| 10-18 | Light-Emitting Diode (LED) Fixture Design and Installation Criteria for Interior and Exterior Lighting Applications | Superseded by ETL 12-4 | 13 Dec 10 |
| 11-1 | Civil Engineer Industrial Control System  Information Assurance Compliance |  | 30 Mar 11 |
| 11-3 | Warm Mix Asphalt (WMA) |  | 8 Aug 11 |
| 11-4 | Airfield Pavement Drainage Layers |  | 13 Dec 11 |
| 11-6 | Utilities Reporting for Air Force Facilities |  | 21 Jun 11 |
| 11-7 | Nuclear Weapons-Capable Maintenance and Storage Facilities |  | 1 Sep 11 |
| 11-8 | Decision Criteria for Installing Vegetative  Green Roofs at CONUS Installations |  | 13 Jan 11 |
| 11-9 | Electrical Manhole Entry and Work  Procedures |  | 19 Jan 11 |
| 11-10 | Electrical Manhole Design Considerations |  | 19 Jan 11 |
| 11-12 | Grounding, Bonding, Testing, and Recordkeeping for Communications Facilities |  | 24 Feb 11 |
| 11-13 | Use of Light-Emitting Diode (LED) Fixtures in Airfield Lighting Systems on Air Force Installations and Expeditionary Locations | Superseded by ETL 11-29 | 14 Apr 11 |
| 11-15 | Repairing and Backfilling Earthen  Structures with Flowable Fill |  | 1 Aug 11 |
| 11-18 | Small Arms Range Design and Construction |  | 19 Apr 11 |
| 11-21 | Emergency and Standby Generator Design, Maintenance, and Testing Criteria | Superseded by ETL 11-21 (Chg  1) | 31 Oct 11 |
| 11-21 (Chg 1) | Emergency and Standby Generator Design, Maintenance, and Testing Criteria | Superseded by ETL 11-21 (Chg  2) | 16 Feb 12 |
| 11-21 (Chg 2) | Emergency and Standby Generator Design, Maintenance, and Testing Criteria |  | 16 Mar 12 |
| 11-22 | Water Distribution Lines Leak Detection |  | 21 Jun 11 |
| 11-24 | Energy Savings Performance Contracts  (ESPC) |  | 18 Jul 11 |

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| **Number** | **Title** | **Status** | **Date** |
| 11-25 | Implementation of Major and Area Source Rules as Applied to Boiler Tune-ups and Energy Assessments for the Boiler MACT Rule |  | 8 Aug 11 |
| 11-26 | Using Asphalt Surface Treatments as Preventive Maintenance on Asphalt Airfield Pavements |  | 21 Dec 11 |
| 11-27 | Solar Lighting for Airfields |  | 7 Dec 11 |
| 11-28 | Mandatory Review and Update of Record Drawings for Nuclear-Capable Weapons and Munitions Storage and Maintenance Facilities |  | 7 Dec 11 |
| 11-29 | Use of Light-Emitting Diode (LED) Fixtures in Airfield Lighting Systems on Air Force Installations and Enduring/Contingency Locations |  | 22 Dec 11 |
| 12-1 | Recommendations for Incorporating Water System Emergency Response Plan Requirements (FOUO) |  | 13 Jan 12 |
| 12-4 | LED Fixture Design and Installation Criteria for Interior and Exterior Lighting Applications | Superseded by ETL 12-4 (Chg  1) | 9 Jan 12 |
| 12-4 (Chg 1) | LED Fixture Design and Installation Criteria for Interior and Exterior Lighting  Applications | Superseded by ETL 12-15 | 17 Feb 12 |
| 12-7 | Repair of Cement-Stabilized Soil (CSS) Surfaces |  | 7 Feb 12 |
| 12-8 | Contingency Aircraft Mooring Points in  Portland Cement Concrete Pavements |  | 18 Jan 12 |
| 12-9 | Personnel Certification Requirements for Inspection of Lightning Protection Systems (LPS) on Nuclear Weapons Maintenance, Handling, and Storage Facilities |  | 13 Apr 12 |
| 12-10 | Utility Energy Service Contracts (UESC) |  | 3 Apr 12 |
| 12-12 | Solar-Powered Light-Emitting Diode (LED) Fixture Design and Installation Criteria for Exterior Lighting Applications in Contingency Environments |  | 27 Jul 12 |
| 12-15 | LED Fixture Design and Installation Criteria for Interior and Exterior Lighting Applications | Superseded by ETL 12-15 (Chg  1) | 22 Aug 12 |
| 12-15 (Chg 1) | LED Fixture Design and Installation Criteria for Interior and Exterior Lighting  Applications |  | 22 Oct 12 |

**CONSTRUCTION TECHNICAL LETTERS (CTL)**

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| **Number** | **Title** | **Status** |
| 87-1 | [Construction Signs] | Superseded by CTL 88-3 |
| 88-1 | [Management of the MILCON Planning and  Execution Process] | Superseded by CTL 90-1 |
| 88-2 | DD Form 1354 Checklist | Canceled |
| 88-3 | [Construction Signs] | Superseded by ETL 93-1 |
| 88-4 |  | Replaced by Electronic Data File and  Documentation in PDC/WIMS |
| 88-5 | [Definitions for Design Milestones] | Superseded by CTL 90-2 |
| 88-6 |  | Canceled |
| 88-7 | Constructability Review Checklist | Superseded by AFPAM 32-1005 |
| 89-1 | Thirty-Percent Design Submittal | Canceled |
| 89-2 | MAJCOM Construction Management | Superseded by AFPAM 32-1005 |
| 89-3 | Warranty and Guarantee Program | Superseded by AFPAM 32-1005 |
| 90-1 | Management of the MILCON Planning and  Execution Process | Superseded by ETL 95-2 and USAF Project  Manager’s Guide for Design and Construction |
| 90-2 | Definitions for Design Milestones | Canceled |

APPENDIX 2

UNIFIED FACILITY CRITERIA

JANUARY 24, 2013

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| **Title** | **Date** | | **Downloads** | | **CCR** | |
| **SERIES 1: POLICY, PROCEDURES AND GUIDANCE** | | | | | | |
| **SERIES 1-200: POLICY** | | | | | | |
| UFC 1-200-01 General Building Requirements, with Change 2 | 08-16-2010 | | [158 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_1_200_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 1-201-01 Non-Permanent DoD Facilities in Support of Military Operations NEW | 01-01-2013 | | [318 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_1_201_01.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 1-300: PROCEDURES AND GUIDANCE** | | | | | | |
| UFC 1-300-01 Criteria Format Standard, with Change 2 | 02-28-2006 | | [290 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_1_300_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard, with Changes 1-4 | 09-01-2004 | | [116 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_1_300_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 1-300-07A Design Build Technical Requirements | 03-01-2005 | | [210 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_1_300_07a.pdf) | |  | |  |  | |  |  |  |  |
| UFC 1-300-08 Criteria for Transfer and Acceptance of DoD Real Property, with Change 2 | 04-16-2009 | | [672 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_1_300_08.pdf) | |  | |  |  | |  |  |  |  |
| UFC 1-300-09N Design Procedures, with Change 8 | 05-25-2005 | | [454 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_1_300_09n.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 1-900: MISCELLANEOUS** | | | | | | |
| UFC 1-900-01 Selection of Methods for the Reduction, Reuse and Recycling of Demolition Waste | 12-01-2002 | | [319 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_1_900_01.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 2: MASTER PLANNING** | | | | | | |
| [UFC 2-000-05N (P-80) Facility Planning Criteria for Navy/Marine Corps Shore Installations](https://portal.navfac.navy.mil/portal/page/portal/navfac/navfac_ww_pp/navfac_hq_pp/navfac_bdd_pp/au_criteriamgmt) | 01-31-2005 | |  | |  | |  |  | |  |  |  |  |
| UFC 2-100-01 Installation Master Planning Revised | 05-15-2012 | | [2.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_2_100_01.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 3: DISCIPLINE-SPECIFIC CRITERIA** | | | | | | |
| **SERIES 3-100: ARCHITECTURE AND INTERIOR DESIGN** | | | | | | |
| UFC 3-101-01 Architecture | 11-28-2011 | | [450 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_101_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-110-03 Roofing | 05-01-2012 | | [866 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_110_03.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-110-04 Roofing Maintenance and Repair | 01-11-2007 | | [88 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_110_04.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-120-01 Air Force Sign Standard | 02-06-2003 | | [8.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_120_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-120-10 Interior Design, with Change 1 | 06-15-2006 | | [644 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_120_10.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-130-01 General Provisions - Arctic and Subarctic Construction | 01-16-2004 | | [1.1 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_130_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-130-02 Site Selection and Development - Arctic and Subarctic Construction | 01-16-2004 | | [816 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_130_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-130-03 Runway and Road Design - Arctic and Subarctic Construction | 01-16-2004 | | [324 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_130_03.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-130-04 Foundations for Structures - Arctic and Subarctic Construction | 01-16-2004 | | [3.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_130_04.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-130-05 Utilities - Arctic and Subarctic Construction | 01-16-2004 | | [1 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_130_05.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-130-06 Calculation Methods for Determination of Depths of Freeze and Thaw in Soil - Arctic and Subarctic Construction | 01-16-2004 | | [1.3 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_130_06.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-130-07 Buildings - Arctic and Subarctic Construction | 01-16-2004 | | [1.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_130_07.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-190-06 Protective Coatings and Paints | 01-16-2004 | | [953 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_190_06.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 3-200: CIVIL / GEOTECHNICAL / LANDSCAPE ARCHITECTURE** | | | | | | |
| UFC 3-201-02 Landscape Architecture, with Change 1 | 02-23-2009 | | [2.9 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_201_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-210-01A Area Planning, Site Planning, and Design | 01-16-2004 | | [1.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_210_01a.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-210-02 POV Site Circulation and Parking, with Change 1 | 01-16-2004 | | [325 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_210_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-210-03A Planning of Outdoor Recreation Facilities | 01-16-2004 | | [798 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_210_03a.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-210-06A Site Planning and Design | 01-16-2006 | | [1.9 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_210_06a.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-210-10 Low Impact Development | 11-15-2010 | | [725 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_210_10.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-220-01 Geotechnical Engineering NEW | 11-01-2012 | | [208 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_220_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-220-04FA Backfill for Subsurface Structures | 01-16-2004 | | [585 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_220_04fa.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-220-05 Dewatering and Groundwater Control | 01-16-2004 | | [2.8 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_220_05.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-220-06 Grouting Methods and Equipment | 01-16-2004 | | [1.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_220_06.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-220-08FA Engineering Use of Geotextiles | 01-16-2004 | | [798 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_220_08fa.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-220-10N Soil Mechanics | 06-08-2005 | | [3.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_220_10n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-230-01 Water Storage, Distribution, and Transmission NEW | 11-01-2012 | | [222 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_230_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-230-02 O&M: Water Supply Systems | 07-10-2001 | | [1.2 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_230_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-230-03 Water Treatment NEW | 11-01-2012 | | [168 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_230_03.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-230-06A Subsurface Drainage, with Changes 1-2 | 01-16-2004 | | [559 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_230_06a.pdf) | |  | |  |  | |  |  |  |  |
| UFC 3-230-17FA Drainage in Areas Other than Airfields | 01-16-2004 | | [2.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_230_17fa.pdf) | |  | |  |  | |  |  |  |  |
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| UFC 3-250-08FA Standard Practice for Sealing Joints and Cracks in Rigid and Flexible Pavements | 01-16-2004 | | [1.3 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_250_08fa.pdf) | |  | |  |  | |  |  |  |  |
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| **SERIES 3-700: COST ENGINEERING** | | | | | | |
| UFC 3-701-01 DoD Facilities Pricing Guide, with Change 3; see also [FY12 Supplemental Documentation (zip, 165MB)](http://wbdg.org/ccb/DOD/UFC/ufc_3_701_01_FY12_supplement.zip) and [FY12 Unabridged Area Cost Factors (zip, 3MB)](http://wbdg.org/ccb/DOD/UFC/ufc_3_701_01_FY12_acf.zip) | 03-2011 | | [608 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_701_01.pdf) | |  | |  |  | |  |  |  |  |
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| UFC 4-022-01 Security Engineering: Entry Control Facilities / Access Control Points | 05-25-2005 | | [2.1 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_022_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-022-02 Selection and Application of Vehicle Barriers, with Change 1 | 06-08-2009 | | [1.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_022_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-023-03 Design of Buildings to Resist Progressive Collapse with Change 1 | 07-14-2009 | | [3.7 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_023_03.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-023-07 Design to Resist Direct Fire Weapons Effects | 07-07-2008 | | [1.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_023_07.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-024-01 Security Engineering: Procedures for Designing Airborne Chemical, Biological, and Radiological Protection for Buildings | 06-10-2008 | | [1.2 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_024_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-025-01 Securing Engineering:  Waterfront Security NEW | 11-01-2012 | | [1.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_025_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-030-01 Sustainable Development | 12-21-2007 | | [1.3 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_030_01.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 4-100: OPERATIONAL AND TRAINING FACILITIES** | | | | | | |
| UFC 4-121-10N Design: Aircraft Fixed Point Utility Systems | 01-16-2004 | | [520 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_121_10n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-133-01N Navy Air Traffic Control Facilities, with Changes 4-5 | 02-24-2005 | | [709 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_133_01n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-141-04 Emergency Operations Center Planning and Design, Change 1 | 07-15-2008 | | [546 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_141_04.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-141-10N Design: Aviation Operation and Support Facilities | 01-16-2004 | | [1.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_141_10n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-150-02 Dockside Utilities for Ship Service, with Change 5 Revised | 05-12-2003 | | [8.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_150_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-150-06 Military Harbors and Coastal Facilities, with Change 1 | 12-12-2001 | | [2.1 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_150_06.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-150-07 Maintenance and Operation: Maintenance of Waterfront Facilities, with Change 1 Revised | 06-19-2001 | | [2.5 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_150_07.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-150-08 Inspection of Mooring Hardware | 04-01-2001 | | [350 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_150_08.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-151-10 General Criteria for Waterfront Construction, with Change 1 Revised | 09-10-2001 | | [190 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_151_10.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-152-01 Design: Piers and Wharves; with Change 1 Revised | 07-28-2005 | | [5.9 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_152_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-152-07 Design: Small Craft Berthing Facilities; with Change 1 Revised | 07-14-2009 | | [2.5 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_152_07.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-159-01N Design: Hyperbaric Facilities | 01-16-2004 | | [1.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_159_01n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-159-03 Design: Moorings, with Change 1 Revised | 10-03-2005 | | [3.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_159_03.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-171-01N Design: Aviation Training Facilities | 01-16-2004 | | [1.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_171_01n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-171-04AN Band Training Facilities | 03-01-2005 | | [17 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_171_04an.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-171-05 Army Reserve Facilities, with Change 3 | 01-01-2005 | | [5.2 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_171_05.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-179-01 Design: Navy Firefighting School Facilities | 01-16-2004 | | [1.8 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_179_01.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 4-200: MAINTENANCE AND PRODUCTION FACILITIES** | | | | | | |
| UFC 4-211-01N Aircraft Maintenance Hangars: Type I, Type II and Type III, with Change 3; also see the Supplement [ITG FY10-01](http://www.wbdg.org/ccb/NAVFAC/INTCRIT/fy10_01.pdf) | 10-25-2004 | | [1.7 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_211_01n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-211-02 Aircraft Corrosion Control and Paint Facilities NEW | 12-01-2012 | | [986 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_211_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-212-01N Navy Engine Test Cells, with Changes 1-4 | 07-27-2006 | | [1.1 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_212_01n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-213-10 Design: Graving Drydocks, with Change 1Revised | 08-15-2002 | | [1.7 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_213_10.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-213-12 Drydocking Facilities Characteristics | 06-19-2003 | | [4.2 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_213_12.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-214-03 Central Vehicle Wash Facilities | 01-16-2004 | | [871 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_214_03.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 4-300: RESEARCH, DEVELOPMENT, TEST AND EVALUATION FACILITIES** | | | | | | |
| UFC 4-310-02N Design: Clean Rooms | 01-16-2004 | | [2.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_310_02n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-390-01 O&M: Unmanned Pressure Test Facilities Safety Certification Manual | 07-23-2003 | | [928 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_390_01.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 4-400: SUPPLY FACILITIES** | | | | | | |
| UFC 4-440-01A Storage Depots | 03-01-2005 | | [891 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_440_01a.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-442-01N Design: Covered Storage | 01-16-2004 | | [2.5 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_442_01n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-451-10N Design: Hazardous Waste Storage | 01-16-2004 | | [149 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_451_10n.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 4-500: HOSPITAL AND MEDICAL FACILITIES** | | | | | | |
| UFC 4-510-01 Design:  Medical Military Facilities NEW | 11-01-2012 | | [5.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_510_01.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 4-600: ADMINISTRATIVE FACILITIES** | | | | | | |
| UFC 4-610-01 Administrative Facilities | 05-06-2008 | | [481 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_610_01.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 4-700: HOUSING AND COMMUNITY FACILITIES** | | | | | | |
| UFC 4-711-01 Family Housing; see also [Unified Facilities Spreadsheet](http://www.wbdg.org/references/pa_dod_sps.php) | 07-13-2006 | | [700 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_711_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-720-01 Lodging Facilities | 02-13-2012 | | [1.6 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_720_01.pdf) | |  | |  |  | |  |  |  |  |
| FC 4-721-10N Facilities Criteria Navy and Marine Corps:  Unaccompanied Housing, with Change 1 NEW | 11-01-2012 | | [2.1 MB](http://www.wbdg.org/ccb/DOD/UFC/fc_4_721_10n.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-722-01 Dining Facilities | 07-02-2007 | | [202 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_722_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-730-01 Family Service Centers, with Change 1; see also [Unified Facilities Spreadsheet](http://www.wbdg.org/references/pa_dod_sps.php) | 04-07-2006 | | [782 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_730_01.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-730-04AN Military Police Facilities | 03-01-2005 | | [3 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_730_04an.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-730-10 Fire Stations; see also [Unified Facilities Spreadsheet](http://www.wbdg.org/references/pa_dod_sps.php) | 06-15-2006 | | [1.8 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_730_10.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-740-01NF Design: Bowling Centers | 04-16-2004 | | [4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_01nf.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-740-02 Fitness Centers; see also [Unified Facilities Spreadsheets](http://www.wbdg.org/references/pa_dod_sps.php) | 09-26-2006 | | [2.3 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_02.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-740-03 Design: Navy and Marine Corps Outdoor Adventure Centers and Rental Centers | 11-01-2002 | | [719 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_03.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-740-06 Youth Centers; see also [Unified Facilities Spreadsheet](http://www.wbdg.org/references/pa_dod_sps.php) | 01-12-2006 | | [1.3 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_06.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-740-14 Design: Child Development Centers | 08-01-2002 | | [1.9 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_14.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-740-15 Continuous Child Care Facilities; see also [Unified Facilities Spreadsheet](http://www.wbdg.org/references/pa_dod_sps.php) | 04-14-2011 | | [580 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_15.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-740-16 Design: Military Recreation Centers; see also [Unified Facilities Spreadsheet](http://www.wbdg.org/references/pa_dod_sps.php) | 05-25-2005 | | [618 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_16.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-740-20 Libraries | 05-01-2006 | | [2.2 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_20.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-750-01NF Design: Golf Clubhouses | 04-16-2004 | | [4.7 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_750_01nf.pdf) | |  | |  |  | |  |  |  |  |
| UFC 4-750-02N Design: Outdoor Sports and Recreational Facilities | 12-04-2003 | | [5.4 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_750_02n.pdf) | |  | |  |  | |  |  |  |  |
| **SERIES 4-800: UTILITIES AND GROUND IMPROVEMENTS** | | | | | | | | |
| UFC 4-826-10 Design: Refrigeration Systems for Cold Storage | | 07-10-2002 | | [180 KB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_826_10.pdf) | |  | | |
| UFC 4-832-01N Design: Industrial and Oily Wastewater Control | | 01-16-2004 | | [1.2 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_832_01n.pdf) | |  | | |
| UFC 4-860-03 Railroad Track Maintenance and Safety Standards | | 02-13-2008 | | [2.1 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_860_03.pdf) | |  | | |
| UFC 4-860-01FA Railroad Design and Rehabilitation | | 01-16-2004 | | [1 MB](http://www.wbdg.org/ccb/DOD/UFC/ufc_4_860_01fa.pdf) | |  | | |

***Instructions - This checklist should be used by the design engineer to determine the necessary design considerations and the submittals for a Stormwater Pollution Prevention Plan (SWPPP) and/or Erosion Control Plan (ECP) review. Once submitted by the Hill AFB PM, it will be used by 75 CEG/CEIE to review and approve these documents. (\*\*This checklist is not all inclusive; consult with CEIE for site-specific issues.)***

***General***

* ***The attached form is a list of typical stormwater review criteria for all construction projects.***
  + ***The Design Engineer should check each item on the list; if an item is not applicable to this project, the item should be noted as N/A***
  + ***Upon submittal for plan review, the Design Engineer should sign this form indicating the checklist and all required documents have been submitted***
  + ***Hill Air Force Base (AFB) Project Manager (PM) must review documents from the Design Engineer and check what is included with the packet and sign this checklist prior to submittal to 75 CEG/CEIE***
  + ***A copy of this checklist must accompany the plans with all subsequent reviews, 75 CEG/CEIE will not accept plans for review without this signed checklist.***
  + ***In providing approvals, 75 CEG/CEIE assumes that applicants have not made any errors and have complied with all applicable regulations. If after an approval, an error is discovered, or it is discovered that some aspect of approved drawings does not comply with applicable regulations, the applicant shall, at his own expense, revise the drawings and modify any infrastructure as necessary to correct the problem. Applicants and their design professionals shall remain responsible for their projects at all times.***
* ***The Hill AFB PM is responsible for compliance with all Department of Defense (DoD), Air Force Instruction (AFI), Unified Facilities Criteria (UFC), and State of Utah Division of Water Quality (DWQ) requirements. In addition, the Hill AFB PM is responsible for compliance with the DoD Implementation of Stormwater Requirements under Section 438 of the Energy Independence and Security Act (EISA) and obtaining all necessary permits and approvals.***
* ***Permit Requirements***
* ***Utah Pollutant Discharge Elimination System (UPDES) Municipal Separate Storm Sewer System (MS4) Permit (UTR090000) Part 4.2.4 and Part 4.2.5***
* ***UPDES Construction General Permit (CGP) (UTRC00000)***

***PROJECT NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***PROJECT ADDRESS/LOCATION: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***I have personally reviewed this submittal and verify that it is complete and that all items have been addressed and comply with current Base Codes and Requirements.***

***Design Engineer Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Print Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

**Hill AFB Project Manager Signature: Date: Hill AFB SWPPP Reviewer Signature: Date:**

**CEIE USE ONLY:**



**Municipal**





**Industrial**

**High Priority Area?**





**YES**



**NO**

**COMMENTS (see attached)**

**PROCEED**

|  |  |
| --- | --- |
| **Suggested Resources:** | * HAFB Guidance Document for Stormwater Management, 2006 |
|  | * Utah Division of Water Quality – Stormwater (Construction): 801-536-4368 or 801-536-4300 |
|  | * Utah Division of Water Quality General Permit for Stormwater Discharges from Construction Activities: |
|  | <https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits> |
|  |  |
|  |  |
| **Contact Information:** | * Davis Weber Canal Company: 801-774-6973 |
|  | * Fife’s Ditch Company: 801-540-0571 |
|  | * American Water:   + Mark Persico – 801-940-6998   + Colby Goodliffe– 801-695-9785 or 385-245-3297 |
|  | * US Army Corps of Engineers: 801-295-8380 |
|  | * 75 CEG/CENMP: David Murray – 801-777-2118 |
|  | * SABER: Cody Duncan – 801-777-8489 |
|  | * 75 CEG/CEIE: Michelle Cottle – 801-777-5041 |
|  | * 75 CEG/CEIE: Randy Judd – 801-777-1866 |

**PROJECT NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **DESIGN ENGINEER** | | | |  | **Hill AFB PM USE ONLY** | | |
| **INCLUDED** | **N/A** | **ANTICIPATED SUBMITTAL DATE** | **SUBMITTAL ITEM** | **YES** | **NO** | **N/A** |
| **DESIGN** | | | |  | | |
|  |  |  | Project name/title |  |  |  |
|  |  |  | Coordination with American Water for sanitary sewer discharges |  |  |  |
|  |  |  | Coordination with IWTP for industrial wastewater discharges |  |  |  |
|  |  |  | Permit/coordination with Army Corps of Engineers, if impacting wetlands |  |  |  |
|  |  |  | Permit/coordination with Davis/Weber Canal Co, if applicable |  |  |  |
|  |  |  | Coordination letter from water users, if impacting Fife’s Ditch |  |  |  |
|  |  |  | Easement/covenant documents, if needed |  |  |  |
|  |  |  | Storm drainage calculations (separate document) for pipe system, surface route, and/or detention/retention ponds. Stamped and certified by a Utah-licensed professional engineer (PE), with the following statement:  “I hereby certify that this report for the onsite drainage of the project was prepared by me (or under my direct supervision) in accordance with the provisions of Specification Section 01 57 20 Environmental Protection and Section 438 of the EISA, and was designed to comply with the provisions thereof. I understand that the Hill AFB project manager does not, and will not, assume liability for drainage facility designs.” |  |  |  |
|  |  |  | Rationale for long-term BMP selection to include an evaluation of LID methods |  |  |  |
|  |  |  | Final stabilization plan |  |  |  |
| **STORMWATER POLLUTION PREVENTION PLAN** | | | |  | | |
|  |  |  | SWPPP prepared using the Utah DWQ Construction General Permit (CGP) template |  |  |  |
|  |  |  | Copy of UPDES NOI (required prior to pre-construction meeting) |  |  |  |
|  |  |  | Vicinity map with project location identified |  |  |  |
| **EROSION CONTROL PLAN** | | | |  | | |
|  |  |  | Existing contour lines (gray scale) at one-foot (1’) intervals |  |  |  |
|  |  |  | Proposed contour lines at one-foot (1’) intervals |  |  |  |
|  |  |  | Locations of materials/equipment/stockpile storage |  |  |  |
|  |  |  | Storm drain system clearly identified (existing and proposed) |  |  |  |
|  |  |  | Direction of stormwater flow |  |  |  |
|  |  |  | Limits of disturbance |  |  |  |
|  |  |  | Locations/details for all erosion & sediment control BMPs |  |  |  |
| **POST-CONSTRUCTION STORMWATER CONTROLS** | | | |  | | |
|  |  |  | Rationale for BMP selection |  |  |  |
|  |  |  | Anticipated BMP pollutant removal |  |  |  |
|  |  |  | Impacts to water quality |  |  |  |
|  |  |  | Maintenance plan for each long-term BMP to include recommended routine maintenance, recommended inspection schedule, inspection requirements |  |  |  |