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**CFETP 3E3X1WG
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**STRUCTURAL
Wage Grade Series
3414/3602/3603/3604/3605/3606/
3610/3703/3806/3869/4102/4104/
4605/4607/4749/4804/5352**



CAREER FIELD EDUCATION AND TRAINING PLAN

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Supersedes CFETP 3E3X1WG Dated 11 Jul 2024

PART I

Preface

This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life-cycle education/training requirements and training support resources for all Structural Technicians working in a Wage Grade series. The CFETP will provide Wage Grade personnel with a clear career path to success and instill rigor in all aspects of our job series training.

The CFETP consists of two parts used by the supervisor to plan, manage, and control training within the job series.

Part I includes the following:

- **Section A** provides general information about how the CFETP will be used.
- **Section B** identifies job series progression information, duties and responsibilities, training strategies, and the job series path.

Part II includes the following:

- **Section A** identifies the Group Series Training Standard (GSTS) to include duties, tasks, and technical references to support Wage Grade training programs.
- **Section B** identifies available support materials.
- **Section C** identifies a training course index supervisors can use to determine resources available to support training. Included here are both mandatory and optional courses, and exportable courseware.

Using guidance provided in the CFETP will ensure individuals in the Structural Wage Grade series receive effective and efficient training at the appropriate point in their careers. This plan will enable us to train today's workforce for tomorrow's jobs. At the unit level, supervisors and trainers must use Part II to identify, plan, and conduct training commensurate with the overall goals of this guide and the local mission.

ABBREVIATIONS EXPLAINED

Air Force Civilian Career Field Manager (AFCCFM). An individual on the Air Staff charged with the responsibility for overseeing all training and career field management aspects of multiple Air Force job series in a functional area.

Air Force Civil Engineer Center (AFCEC). The focal point for all Civil Engineer training development.

Air Force Institute of Technology (AFIT). Provides vital, relevant, and continued education that enables Airmen to be ready engineers and great leaders who know how to build sustainable installations to last while leading the change for the Civil Engineer career field. Course list can be accessed at: <https://www.afit.edu/ce/>

Air Force Wage Grade Series Qualification Standard (AFWGSQS). A comprehensive task list that describes a particular series or duty position. Used by supervisors to document task qualifications. The tasks on the AFJQS are common to all persons serving in the described duty position. Qualifications can be found at: <https://www.opm.gov/policy-data-oversight/classification-qualifications/federal-wage-system-qualifications/#url=List-of-Approved-Job-Elements>

Air Force Qualification Training Package (AFQTP). An instructional package designed for use as a training resource to qualify, or aid qualification, in a duty position or program, or on a piece of equipment. AFQTPs identify the Air Force's standardized method for performing the task. The AFQTP may be printed (paper-based), computer-based, in other audiovisual media formats, or all three.

Career Development Course (CDC). Self-paced, correspondence course published to provide the information necessary to satisfy the career knowledge component of on-the-job training (OJT). These courses are developed from references identified in the CFETP. CDCs will contain information on basic principles, techniques, and procedures common to a military AFSC or civilian job series. They do not contain information on specific equipment or tasks unless best illustrating a procedure or technique having utility to the entire career field.

Career Field Education and Training Plan (CFETP). A comprehensive, multipurpose document encapsulating the entire spectrum of education and training for various wage grade series. It outlines a logical growth plan that includes training resources and is designed to make job series training identifiable, to eliminate duplication, and to ensure this training is budget defensible.

CE Career Field SharePoint. Contains information on leadership courses and civilian tuition assistance for degree programs. Can be found at: <https://usaf.dps.mil/sites/10016/Federal%20Wage%20System/Forms/AllItems.aspx?viewpath=%2Fsites%2F10016%2FFederal%20Wage%20System%2FForms%2FAllItems%2Easpx>

Civilian Training Home Page (myPers). Contains descriptions and requirements for several civilian training opportunities such as degree programs and civilian leadership courses. This page can be found at: https://mypers.af.mil/app/answers/detail/a_id/41427/p/2/p/2

Classification Standard. Job grading standards provide information used in determining the occupational series and title of jobs performing trades, craft, and labor work in the Federal Government. They also provide grading criteria for positions classified under the Federal Wage System (FWS). Classification Standards can be found at: <https://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-federal-wage-system-positions/#url=5300>

Commercial Off the Shelf (COTS). Commercially procured training products or in-resident vendor training.

Computer-Based Training (CBT). A self-paced, stand-alone computer product used to deliver interactive subject and task knowledge.

Core Tasks. Mandatory tasks which the AFCCFM has identified as a minimum qualification requirement within a job series or duty position. These tasks are derived from the Standard Core Personnel Document (SCPD) for each job series.

Distance Learning (DL). Includes Video Tele-seminar (VTS), Video Tele-training (VTT), and CBT. Formal courses that a training wing or a contractor develops for export to a field location (in place of resident training) for trainees to complete without the on-site support of the formal school instructor. For instance, courses are offered by the Air Force Institute of Technology, Air University, and Training Detachments.

DoD Civilian COOL: On-line source for civilian credentialing opportunities locates at: <http://dod-civ-cool-review.s3.amazonaws.com/index.htm>

Duty Position Tasks. Tasks identified by the work center supervisor as critical and common training tasks needed for the duty position and mission accomplishment.

Education & Training Course Announcements (ETCA). Web platform, which contains descriptions, requirements, and reporting procedures for in resident Air Force courses. This is located at: <https://usaf.dps.mil/teams/app10-etca/SitePages/home.aspx>

Enlisted Professional Military Education (EPME). EPME provides a continuum of learning through progressive courses concentrated on developing Military and Civilian Airmen. EPME plays a vital role in preparing Civilian Airmen for increased supervision, leadership, and management challenges. The three levels of Air Force EPME are Airman Leadership School, Noncommissioned Officer Academy and Air Force Senior Noncommissioned Officer Academy. All levels of EPME are available to Wage Grade civilians. Information about enlisted PME can be found at: <https://www.airuniversity.af.edu/>

Functional Advisory Council/Wage Grade Panel. The Wage Grade Panel is one of the four panels that make up the Civil Engineer Functional Advisory Council (FAC). The Wage Grade Panel charter is to work issues, develop policy, and provide recommendations to the FAC on matters related to civilian Wage Grade requirements. The Wage Grade Panel works through the FAC, in service to the CE Total Force community.

Group Series Training Standard (GSTS). Describes skills and knowledge that FWS Employees in a particular job series need on the job and for future career development opportunities. It further serves as the overall training requirements for a Wage Series taught in the resident and non-resident courses.

Mil University. This is a supervisor and employee resource center where FWS employees can get information about development opportunities as well as mentoring resources, a leadership library and live mentoring events. This site can be found at: <https://www.milsuite.mil/university/clds/>

myLearning. Anytime, anywhere learning within DoD consisting of instructional modules comprised of sharable content objectives in an Internet/Intranet environment. This can be found at: <https://lms-jets.cce.af.mil/moodle/>

On-the-Job Training (OJT). Hands-on, over-the-shoulder training conducted to certify personnel in job qualification (duty position certification) training.

Proficiency Training. Additional training, either in-residence, advanced/supplemental training courses, or on-the-job training provided to personnel to increase their skills and knowledge beyond the minimum.

Red Vector. Commercial web-based training is available free of charge to CE employees. Courses are effective for certification renewal and earn Continuing Educations Units (CEUs). Site can be found at: <http://afcec.redvector.com/lpe/course/search/b2b>

Regional Training Site (RTS). Total Force training centers managed by the Air National Guard. These sites offer training on specialized military equipment and are available to civilians who require training for local mission needs. Training can be coordinated through the FWS Force Development Team at AFCEC/COF.

Resource Constraints. Resource deficiencies, such as money, facilities, time, manpower, or equipment that precludes desired training from being delivered.

Specialty Training Standard (STS). Describes the military version of the GSTS. This term may be used on training products that overlap military and civilian training programs

Total Force. All collective Air Force components (Active Duty, Reserve, Guard, and Civilian elements) of the United States Air Force.

Vendor Provided Training. Training provided to the Air Force by a third party. Typically, a private vendor in the private sector not affiliated with the Department of Defense. Vendor training can be in the form of Web-Based Training, Computer-Based Training, or in resident training at a temporary duty location or even hosted on an Air Force installation.

Wage Grade Series Training. A mix of formal training (technical school) and informal training (on-the-job) to develop, maintain and enhance wage grade series specific technical skills.

Web-Based Training. A form of Distance Learning. The term Web-Based just means the training is online and requires access to the internet in addition to the actual course content.

Section A – GENERAL INFORMATION

A1. Purpose. The CFETP is designed to be a tool for supervisors to use in assessing the skill level of current and new employees. The CFETP may be used to document training and proficiency of the employee on associated task/s by the supervisor or certified trainer.

A1.1. Column 1 (*Tasks, Knowledge, and Technical References*). Lists the most common tasks, knowledge, and supporting technical references (TR) necessary for Civilian Airmen to perform duties in the Apprentice, Journeyman, Craftsman, and Supervisor level.

A1.2. Column 2 (*Tasks*). Identifies tasks that have a Core and/or Certification, Civilian Deployment, or Special Experience Identifier (SEI) requirement.

A1.3. Column 3 (*Certification of Training*). Used to record completion of tasks and knowledge training requirements. Task certification requires the task to be trained by a trainer designated by the supervisor. The trainer can be either civilian or military. Use the automated training record application to document individual qualifications. The training start and completion date are documented, the task is signed by the trainee and either the work center supervisor, a Master Sergeant (or above) or the unit training manager. This action will complete the task certification.

Note: The “trainer” signing the record **MUST** be the work center supervisor, work leader, a Master Sergeant (or above) or the Unit Training Manager. This person does not necessarily train the task but will ensure the training is conducted by a qualified trainer prior to completing task certification.

Note: If a work center supervisor, Work Leader, Master Sergeant (or above) or the unit training manager are not available in a shop or unit to certify a task, the Operations Flight deputy commander will designate a certifier within the flight.

A1.4. Column 4 (*Tasks and Proficiency Codes*). Identifies duty position tasks (series training requirements) with a proficiency code and indicates training requirements. It shows the proficiency to be demonstrated on the job by the employee as a result of hands-on training on the task, knowledge and the career knowledge provided by formal courses, CDC, distance learning (DL) web-based training (WBT) and AFQTPs. CDC listings are maintained by the unit education and training manager for current CDC listings.

A1.5. Qualitative Requirements. Contains the proficiency code key used to indicate the level of training and knowledge provided by CBT, WBT, COTS, in-resident training, and career development courses.

A1.6. Job Qualification Standard (JQS). The Group Series Training Standard (GSTS) becomes the JQS for OJT when entries are made in the GSTS. For OJT, the tasks in Column 1 are trained and qualified to the go/no go level. “Go” means the individual can perform the task without assistance and meets local requirements for accuracy, timeliness, and correct use of

A2. Uses. Managers and supervisors may use the plan at all levels to ensure comprehensive and cohesive training programs are available for each individual in the wage grade series.

A2.1. Wage Grade Panel of the Functional Advisory Council will develop/revise formal resident, non-resident, field, and exportable training based on requirements established by the users and documented in Part II of the CFETP. They will also work with the Air Force Civil Engineer Center Force Development Division (AFCEC/COF) to develop acquisition strategies for obtaining resources needed to provide the identified training.

A2.2. The Wage Grade Panel along with the Force Development Managers, will ensure their training programs complement the CFETP training requirements and identify requirements that can be satisfied by OJT, resident training, contract training, or exportable courses.

A2.3. Supervisors will guide each individual through completion of training specified in this plan.

A2.4. Each individual completes training requirements specified in this plan. The list of courses in Part II of this CFETP will be used as a reference to support training.

A3. Coordination and Approval. The Wage Grade Panel Chairs are the approval authority for the CFETP. The Wage Grade Panel along with the Force Development Managers will identify and coordinate on wage grade series training requirements. Using the list of courses in Part II, they will eliminate duplicate training.

A4. HQ USAF/A4C will review this CFETP annually and make updates and changes as deemed appropriate. Please send recommended changes to the AFCEC/COF Training Support Section at DSN 523-6879 or comm. 850-283-6879 or email afcec.ce.training@us.af.mil.

Section B – WAGE GRADE PROGRESSION AND INFORMATION

B1. Series Descriptions. See each individual's Standard Core Personnel Document for the description.

B1.1. Wage Grade Series Summary. Manages, constructs, repairs, and modifies structural systems and wooden, masonry, metal, and concrete structures and facilities. Fabricates and repairs components of buildings, utility systems, and real property installed equipment (RPIE). Ensures compliance with environmental regulations. Related DoD Occupational Subgroup: 171000

B2. Skill and Career Progression. Adequate training for progression from the apprentice to Craftsman level, and possibly into a supervisory position play an important role in the Air Force's ability to accomplish its mission. It is essential everyone involved in training do their part to participate in, plan, manage, and conduct effective training. The guidance provided in this part of the CFETP will identify viable training at appropriate points in an individual's career.

B2.1. Apprentice/Helper (A/H).

B2.1.1. Upon completion of initial skills training, an employee may work with a trainer to enhance their knowledge and skills to perform at the highest attainable level within their series.

B2.1.2. Utilize the Career Development Course (CDC) and other exportable courses for subject and task fundamentals in the series.

B2.1.3. Encourage apprentice/helpers to continue academic education and begin EPME by enrolling in Airman Leadership School either in-residence or by correspondence course.

B2.2. Journeyman (J).

B2.2.1. Journeymen may continue to advance their skills by completing additional training. Upon completing training, they may be assigned job positions such as team leader, trainer, or task certifier. Journeymen can pursue leadership training and skills in order to qualify for potential advancement to Work Leader or Work Supervisor positions.

B2.2.2. Encourage journeyman to enroll in the Noncommissioned Officer Academy (NCOA) either in-residence or by correspondence course.

B2.3. Craftsman (C).

B2.3.1. Craftsmen may continue to advance their skills by completing additional training. They may be assigned job positions such as team leader, trainer, or task certifier. Craftsmen are encouraged to pursue leadership training and skills outlined in the Career Building Blocks and this CFETP in order to qualify for potential advancement to Work Leader or Work Supervisor positions.

B2.3.2. Encourage craftsmen to continue academic education and complete Noncommissioned Officer Academy (NCOA) either in-residence or by correspondence course, civilian leadership courses and degree programs outlined in the Career Building Blocks and this CFETP.

B2.3.3. Master Craftsman are typically graded higher than WG-10 where skills, knowledge and abilities require higher technical abilities than standard craftsmen. They are duty/location specific and not for all job series.

B2.4. Work Leader (WL).

B2.4.1. Work Leaders are expected to perform limited functions of a First Line Supervisor or act as a Team Lead.

B2.4.2. Completion of the AFIT Civilian Supervisors Course (WMGT 571) is highly encouraged.

B2.4.3. Should pursue increased knowledge of budget, manpower, resources, and personnel management.

B2.4.4. Recommend pursuit of additional higher education and completion of courses outside of their job series for career broadening opportunities outlined in the Career Building Blocks and this CFETP.

B2.4.5. Encourage Work Leaders to continue academic education and complete Noncommissioned Officer Academy (NCOA) either in-residence or by correspondence course, civilian leadership courses and degree programs outlined in the Career Building Blocks and this CFETP.

B2.5. First Line Supervisor.

B2.5.1. A supervisor can be expected to fill positions such as the Element Chief or Special Projects Supervisor.

B2.5.2. Must enroll and complete required mandatory supervisor or manager training courses within 1 year of appointment to a supervisory or managerial position and complete experience training every 3 years, thereafter.

B2.5.3. Completion of the AFIT Civilian Supervisors Course (WMGT 571) is highly encouraged.

B2.5.4. Should pursue increased knowledge of budget, manpower, resources, and personnel management.

B2.5.5. Recommend pursuit of additional higher education and completion of courses outside of their job series for career broadening opportunities.

B2.5.6. Encourage supervisors to continue academic education and complete Senior Noncommissioned Officer Academy (SNCOA) by correspondence, civilian leadership courses and degree programs.

B3. Correspondence Course Directions. Nonresident attendance for professional military education courses is accomplished through the Air Force Portal.

B3.1. Login to the AF Portal <https://www.my.af.mil/>.

B3.2. Copy and paste the URL <https://www.airuniversity.af.edu/GCPME/> into your browser.

B3.4. “Distance Learning” tabs are on the right-side menu.

B3.5. Select the appropriate course.

B4. In-Resident Enlisted Professional Military Education (EPME). Scheduling enlisted professional military education for civilian personnel is a responsibility of AFPC/DP3DW unless otherwise noted. See DAFI 36-2670 Total Force Development, for more detailed information.

B4.1. Airman Leadership School (ALS). Airman Leadership School resident attendance is scheduled by the local Airman Leadership School commandant. Commandants build an annual schedule shortly after the staff sergeant (E-5) promotion release. Eligible Air Force and Department of Defense civilians are considered priority 3 for ALS. DAFI 36-2670 encourages ALS leadership to the extent possible, distribute Priority 2 and 3 students throughout the year to maximize diversity in the classroom.

B4.2. Noncommissioned Officer Academy (NCOA). Selection and scheduling are accomplished by AFPC/DP3DW. Eligible Air Force and Department of Defense civilians are considered priority 3 for NCOA and are considered on a space available basis.

B4.3. Senior Noncommissioned Officer Academy (SNCOA). Selection and scheduling are accomplished by AFPC/DP3DW and is driven by the senior master sergeant (E-8) promotion release. Eligible Air Force and Department of Defense civilians are considered priority 4 for SNCOA and are considered on a space available basis.

B5. Career Building Blocks (CBBs) and Continuous Development Framework Model.

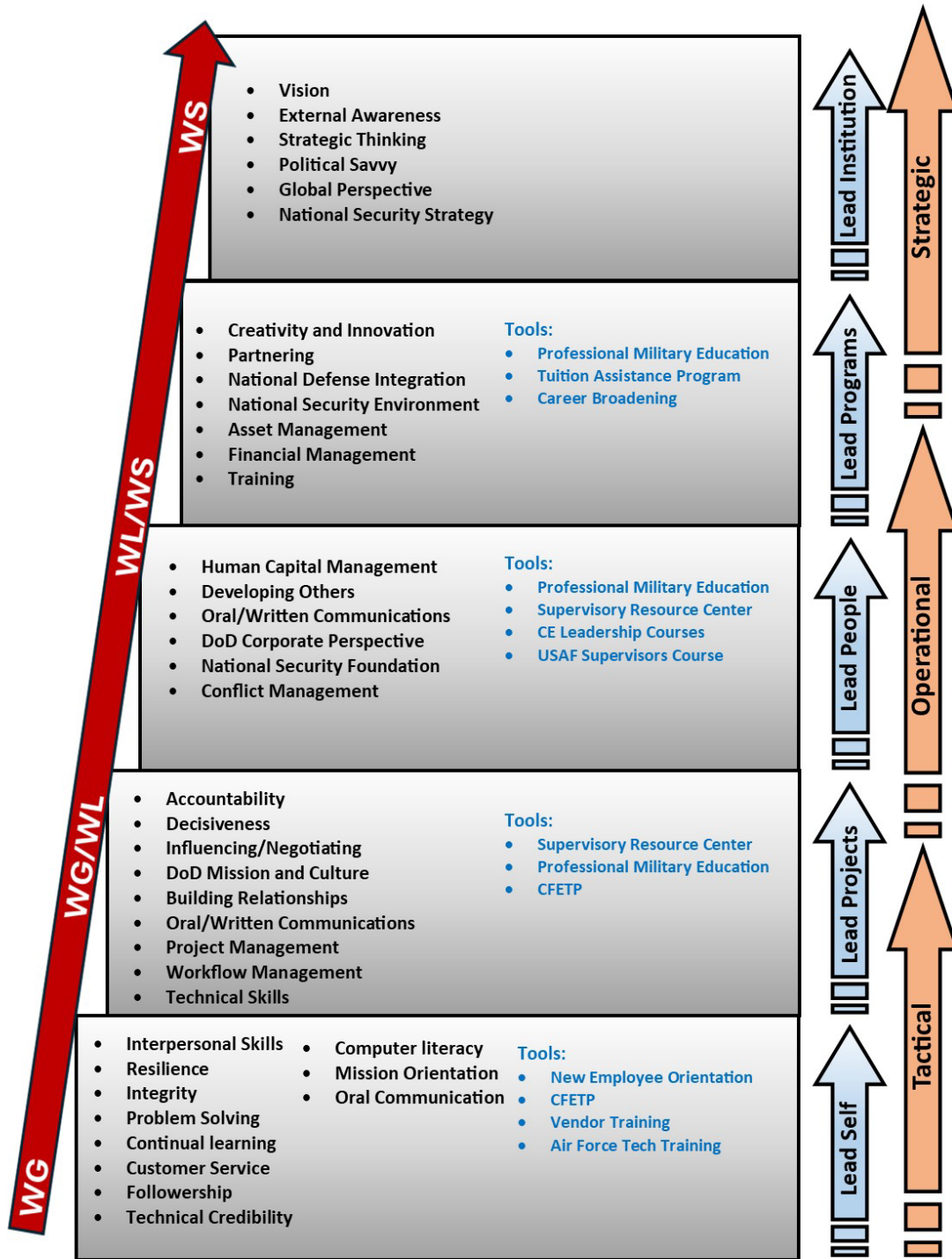
B5.1. The Career Building Blocks illustrate the dispersion of grades and relative experience levels (apprentice, journeyman, craftsman). As you progress through the grades, so should your breadth of experience. This not only includes technical experience, but leadership, supervisory and management experience as well. Using various on-the-job training, military, and civilian vocational schools, and PME, forms the foundation of the CBBs and the “Develop Exceptional Leaders” portion of the strategic vision in the CE Human Capital Road Map.

B5.1.1. The Wage Grade Career Building Blocks (CBBs) are an illustration or an example of your individual development plan or career path. Your individual roadmap may be different than others based on your occupational series and/or career path. The CBBs provide a few examples of development opportunities at the tactical, operational, and strategic levels of performance. Follow this link to see the CBBs for your job series.

<https://usaf.dps.mil/sites/10016/Career%20Building%20Blocks/Forms/AllItems.aspx>

B5.1.2. Once you have established your career goals, identify a mentor to help you align your steps in this learning and development continuum. A mentor can help you identify different kinds of experience and training you will need as well as the tools to attain them. Mentors also serve as a sounding board and can help you reassess or adjust your career goals when events in your life or career necessitate changes. As you complete these steps and move toward your career goals, it is important to reassess your goals. Once this is accomplished, you and your mentor will be able to further your progression and advancement through the continuous development framework model. See Figure 1 below for the Continuous Development Framework Model.

Figure 1. Continuous Development Framework Model



PART II

Section A – GROUP SERIES TRAINING STANDARD

A1. Implementation. This STS is used for technical training provided by AETC, OJT and COTS training documentation.

A2. Purpose. As prescribed in DAFI 36-2670, *Total Force Development*, DAFMAN 32-2670, *Civil Engineer Federal Wage System Force Development* and in collaboration with the AFCCFM, this STS is mandatory for all FWS job series working under the Air Force Specialty Code 3E3X1, regardless of duty assignment. Each employee must use an automated training record.

A2.1. Column 1 (*Tasks, Knowledge, and Technical References*). Lists the most common performance and knowledge requirements necessary for an employee to perform successfully in their job series. The required behaviors will be used as the context for which learning will be assessed.

A2.2. Column 2 (*Core Tasks*). Tasks identified by the AFCCFM or shop foreman as mandatory for each duty position in a job series at their location.

A2.2.1 Column 2 (*Deployment/SEI*). Tasks identified as mandatory for employees who perform roles in Mission Critical, Mission Essential or have been identified for a civilian deployment tasking.

A2.3. Column 3 (*Provides Certification for OJT*). Used to record completion of each training requirement. Use the automated training system to document qualifications.

A2.3.1. Task certification of core and critical tasks. Require a training completion date and initials of the trainee, trainer, and a certifier. All non-core tasks require training completion date and initials of the trainee and trainer only.

A2.3.2. Performance Standard. All training requirements are trained and qualified to the “Go” level. “Go” means the individual can perform the task without assistance and meets local demands for accuracy, timeliness and, if applicable, correct use of procedures and Technical Orders.

A2.4. Column 4 (*Codes Used to Indicate Level of Training*). Indicates whether the task is a Knowledge (K), Performance (P) or Performance and Knowledge (PK). Codes are provided in columns labeled for each level of experience. These are labeled A/H for Apprentice/Helper, J for Journeyman, C/WL for Craftsman or Work Leader and S for Supervisor.

A2.5. Job Qualification Standard (JQS). The STS becomes a JQS for OJT when placed in an automated training application and used according to DAFI 36-2670, *Total Force Development* and DAFMAN 32-2670 *Civil Engineer Federal Wage System Force Development*. QTPs are available on myLearning to ensure that all supervisors use standardized procedures for training. When used as a JQS, the following requirements listed below apply.

A2.5.1. Documentation. Document and certify completion of training.

A2.5.1.1. Duty position. Requirements for each duty position (task group) will be developed and identified by the work center supervisor and loaded into the automated training management application. Completion of the identified tasks is mandatory for all duty positions. Ensure the correct duty position title is listed in the Profile section of the trainee's automated training record.

A2.5.1.2. AFQTP Training and Documentation. AFQTPs have been created for several task groups to fulfill performance (P) and knowledge (K) requirements for upgrade/qualification training. Each AFQTP provides the step-by-step procedures for the trainee, trainer, and certifier in completing each.

A2.5.1.3. Hands-On Training. For performance (P) training requirements, *DO NOT* sign off the tasks in the JQS until the trainee has completed hands-on/certification training.

A2.5.2. Transcribing from previous versions to new CFETP. The UETM and supervisor must conduct a review of the new STS to identify any new tasks and add those tasks to their unit specific duty positions.

A2.5.2.1. Previous training certification not listed. If previous training certifications are not listed in the individual training record, select the task to be transcribed, and click on the transcribe button. Enter the date of the original certification and sign off the task(s). The trainee will then sign off the task(s) to finalize the transcription of previous training certification. The automated application will place an entry into the trainee 623a and must be acknowledged by the transcriber and trainee.

A2.5.2.2. Transcribing external training certification. If a trainee attended a formal training course and received appropriate accreditation, select the formal training section of the users automated training record and locate the course title in the master task list, then enter the completion date. If the course is not listed, contact the UETM to have it loaded from the master catalog. If it is not listed in the master catalog, contact AFCEC/COF to have it loaded in the master catalog.

Section B – COURSE OBJECTIVE LIST

B1. Measurement. Measurement of each learning objective is indicated as follows:

B1.1. Use of Progress Checks (PCs) & Rubrics. Indicates formal measurement of knowledge (K) and/or performance (P) elements.

B2. Standard. Standards for measurement are indicated in the course objectives and delineated on the individual progress checklist and rubrics. The minimum standard is 70% on knowledge progress checks. Trainer assistance is used as the standard for performance progress checks and is provided, as warranted during the progress check. Trainee may be required to repeat all or parts of the learning outcome until satisfactory performance is attained.

B3. Proficiency Level. Student must demonstrate mastery on each learning outcome/objective before progressing to the next learning requirement.

B4. Course Objective List. These objectives are listed in the sequence taught by Blocks of Instruction. Per AETCI 36 - 2651, *Basic Military and Technical Training*, a detailed listing of the initial skills course learning objectives in the Basic Course are listed in the 3E3X1 AFSC STS.

Section C – SUPPORT MATERIAL

C1. Air Force Qualification Training Packages

C1.1. The AFQTPs for each task group are identified on the AFQTP Documentation Record located in Attachment 3.

C1.2.1. For a complete list of up-to-date AFQTPs applicable to the 3E3X1 AFSC, go to [myLearning](#).

C1.2.2. In addition to the AFQTPs there are web-based courses or assessments developed for certain tasks that are available on [myLearning](#) under AFCEC in the specialty topic area.

C2. Career Development Course (CDC) Assessment for Civil Engineer CDC/DL course

C2.1. AFCEC/COF has developed CDC assessments for each Air Force CE career field, and they are located on the [myLearning](#) under AFCEC in the topic header Civil Engineer Career Development Courses (CDCs) Assessments.

C2.2. CDC assessments are for the sole purpose of providing the trainer and the supervisor with a predictive indicator of whether the trainee has a solid grasp on the knowledge portions of the STS.

Section D – EDUCATION AND TRAINING COURSE INDEX

D1. Purpose. This section of the CFETP identifies training courses available for the Structural specialty. Refer to Education and Training Course Announcements ([ETCA](#)) web site for information on the Air Force in-residence courses.

D2. Air Force In-Residence Courses/Mobile Training Team (MTT) Courses.

<u>Course Number</u>	<u>Title</u>	<u>Developer</u>
J9AQN3E331 00NB	Structural Apprentice Qualifying I	366 TRS, Det 6
J9AQN3E331 01NB	Structural Apprentice Qualifying II	366 TRS, Det 6
JCABP3E331 00AC	Structural Apprentice (Air Force Unique)	366 TRS, Det 6
JCAZP3E351 01AB	Roof Installation, Maintenance, Inspection and Repair	366 TRS, Det 6
JCAZP3E351 02AB	Metals Layout, Fabrication and Welding	366 TRS, Det 6
JCAZP3E351 03AA	Contingency Maintenance	366 TRS, Det 6

D3. Air Force Career Development Academy (AFCDA).

<u>Course Number</u>	<u>Title</u>	<u>Edit Code</u>
CDC D3E351	Structural Journeyman	01
CDC E3E351	Structural Journeyman	01

D4. Exportable/Web-based Courses/Information.

<u>Course Number</u>	<u>Title</u>	<u>Developer</u>
Web based	Civil Engineer 5-Level Core Concepts Course	AFCEC/COF
Web based	Civil Engineer 7-Level Core Concepts Course	AFCEC/COF
Web based	Confined Space Course	AFCEC/COF
Web based	3E3X1 Paper Based AFQTPs	AFCEC/COF
WENG 200	Scoping and Estimating Course	AFIT
WENG 400	Life-cycle Cost Estimating	AFIT
WENG 500	Cost Engineering	AFIT
WMGT 100	AIR Force Civil Engineer Basic Civilian Course	AFIT
WMGT 131	SMS Builder Course	AFIT
WMGT 301	Intro to Asset Management	AFIT
WMGT 322	Introduction to Project Management	AFIT
WMGT 436	Requirements and Optimization	AFIT
WMGT 437	Troop Construction Project Management	AFIT
WMGT 571	Operations Flight Civilian Supervisor Course	AFIT
WMGT 417	Activity Management	AFIT
WMGT 436	Requirements and Optimization	AFIT

D5. Leadership Training and Academic Fellowships through the Eaker Center

Title

Squadron Officers School (SOS)

Developing Supervisor Course

Defense Emerging Leader Program

Civilian Associates Degree Program

Civilian Bachelors Degree Program

Located at: <https://myfss.us.af.mil/USAFCommunity/s/knowledge-detail?xid=13085>

3 Attachments

1. Qualitative Training Requirements (Proficiency Code Key)
2. Wage Grade Group Series Training Standard
3. Air Force Qualification Training Package Tracker

Attachment 1
Qualitative Training Requirements (Proficiency Code Key)

A1. Qualitative Training Requirements

<i>This Block is for Identification Purposes Only.</i>		
Name Of Trainee		
Printed Name (Last, First, Middle Initial)	Initials (Written)	SSAN (Last four)
Printed Name of Trainer, Certifying Official and Written Initials		
<i>N/I</i>	<i>N/I</i>	

Behavioral Statement GSTS Coding System	
Code	Definition
K	Subject Knowledge Training - The verb selection identifies the individual's ability to identify facts, state principles, analyze, or evaluate the subject.
P	Performance Training - Identifies that the individual has performed the task to the satisfaction of the trainer/certifier; however, the individual may not be capable of meeting the field requirements for speed and accuracy.
PK	Performance Knowledge Training - The verb selection identifies the individual's ability to relate advanced facts, procedures, operating principles, and operational theory for the task.
X	Formal Course
*	Core Task. These are mandatory tasks identified by the Career Field Manager

Attachment 2
Wage Grade Group Series Training Standard

A2. Wage Grade Group Series Training Standard (GSTS)

A2.1. Identification. In the training record User Profile section, the UTM will assign individuals to the correct work center, upon in-processing into the unit.

A2.2. Structural Specialty Tasks. The following are tasks the work center supervisor will use to track each duty position created for their work center.

1. Tasks, Knowledge and Technical References	2. Tasks	3. Certification For OJT					4. Proficiency Codes				
	Core/Cert	A	B	C	D	E	A	B	C	D	
		Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	A/H	J	C/WL	S	
1. CIVIL ENGINEER (CE) IN-RESIDENT AND DL CORE DUTY COURSES											
1.1. Accomplish CE 5-Level Core Concepts Course							X				
1.2. Accomplish CE 7-Level Core Concepts Course								X			
1.3. Complete WMGT 131 SMS BUILDER Level 1								X	X		
1.4. Complete WMGT 231: SMS BUILDER Level 2								X	X	X	
1.5. Complete AFIT WMGT 301 Intro to Asset Management							X	X	X		
1.6. Attend AFIT WENG 200 Scoping and Estimating course								X	X		
1.7. Attend AFIT WMGT 301 Intro to Asset Management course								X	X		
1.8. Attend AFIT WMGT 322 Intro to Project Management course								X	X	X	
1.9. Attend Roof Installation, Maintenance, Inspection, and Repair Course								X	X		
1.10. Civilian Supervisor Course									X	X	
1.11. WMGT 571 Course									X	X	
2.0. AFS SPECIFIC SAFETY TR: DAFMAN 91-203; DAFI 91-202; DAFI 91-204; AFD 91-2; NIOSH 87-116 Note: QTP available											
2.1. AF occupational safety and health program								K	K	K	K
2.2. Hazard abatement awareness								K	K	K	K
2.3. Identify hazards								K	PK	PK	PK
2.4. Plan hazard abatement								K	PK	PK	PK

2.5. Exercise safety precautions when:											
TR: NAVEDTRA 14256; T.O. 32-1-101; T.O. 32-1-151; T.O. 34-1-3; T.O. 34W4-1-5											
2.5.1. Operating power tools and equipment								PK	PK	PK	PK
2.5.2. Using hand tools								PK	PK	PK	PK
2.5.3. Working from heights								PK	PK	PK	PK
2.5.4. Lifting manually								PK	PK	PK	PK
2.5.5. Handling compressed gas containers								PK	PK	PK	PK
2.5.6. Handling corrosive materials associated with Structural Job Series								PK	PK	PK	PK
2.5.7. Perform Lockout/Tagout procedures								PK	PK	PK	PK
2.6. Safety Training Standards for AFS											
2.6.1. Utilize Safety Data Sheet (SDS)								PK	PK	PK	PK
2.6.2. Initial Federal Hazard Communication Training Program (FHCTP) TR: DoDI 6050.05								K	PK	PK	PK
2.7. Fall Protection Awareness											
2.7.1. Purpose								K	K	K	K
2.7.2. Fall Protection Plan								K	K	K	K
2.7.3. Rescue Plan								K	K	K	K
2.7.4. Develop Rescue plan									K	PK	PK
2.7.5. Fall Protection Equipment											
2.7.5.1. Inspect								PK	PK	PK	PK
2.7.5.2. Demonstrate proper use								PK	PK	PK	PK
2.7.5.3. Maintain								K	PK	PK	PK
3.0. AFS SPECIFIC PUBLICATIONS											
TR: e-Publishing											
3.1. Publication types								K	K	K	K
3.2. Locate desired information in:											
3.2.1. Standard publications								K	K	K	K
3.2.2. Technical orders								K	K	K	K
3.2.3. National Electrical Code								K	K	K	K
3.2.4. National Electrical Safety Code								K	K	K	K
3.3. Utilize technical publications to perform maintenance, operations, and troubleshooting								K	PK	PK	PK

4.0. SUSTAINMENT MANAGEMENT SYSTEMS (SMS)										
TR: AFI 32-1001										
4.1. Perform work center management functions using NexGen									PK	PK
4.2. Document inspections into BUILDER									PK	PK
5.0 PROJECT PLANNING										
TR: NAVEDTRA 14250 and 14251; AFI 32-1023										
Note: QTP available										
5.1. Functions									K	K
5.2. Planning Functions										
TR: AFI 32-1020; NTRP 4-04.2.5; NAVEDTRAs 14040, 14043, and 14045; AFI 32-1020										
5.2.1. Demonstrate the proper use of estimating standards									K	PK
5.2.2. Apply special precautionary measures									K	PK
5.2.3. Sketch working drawings									PK	PK
5.2.4. Construction drawings									K	K
5.2.5. Interpret blueprints									PK	PK
5.3. Use Construction Drawings for:										
TR: NAVEDTRA 14040, 14043, 14045										
5.3.1. Carpentry									PK	PK
5.3.2. Masonry									PK	PK
5.3.3. Metal									PK	PK
5.3.4. Roofing systems									PK	PK
TR: TM 5-617										
5.3. Identify construction material based on provided blueprints									K	PK
5.4. Identify Types of Material Required for:										
5.4.1. Carpentry									K	PK
5.4.2. Masonry									K	PK
5.4.3. Metal									K	PK
5.4.4. Roofing systems									K	PK
TR: AFI 32-1051; TM 5-617 (AFM 91-31)										
Roofing Construction & Estimating by Acheson										
5.5. Estimate construction materials based on provided blue prints									PK	PK
5.6.1. Establish Quantity of Material Required for:										
5.6.1. Carpentry									PK	PK
5.6.2. Masonry									PK	PK
5.6.3 Metal									PK	PK
5.6.4 Roofing systems									PK	PK

6.0. TOOLS AND EQUIPMENT											
TR: NAVEDTRAs 14043, 14044, 14045, 14250, 14251, and 14256; AFMAN 91-203											
6.1. Usage of hand tools and equipment								K	K	K	K
6.2. Demonstrate Proper Use of:											
6.2.1. Hand tools								PK	PK	PK	PK
6.2.2. Portable power tools								PK	PK	PK	PK
6.2.3. Shop-installed equipment								PK	PK	PK	PK
6.2.4. Laser level								PK	PK	PK	PK
6.2.5. Powder actuated tools								PK	PK	PK	PK
6.2.6. Ladders								PK	PK	PK	PK
6.2.7. Mobile work platforms											
6.2.7.1. Aerial work platform								PK	PK	PK	PK
6.2.7.2. Scissor lift								PK	PK	PK	PK
6.2.7.3. Scaffolds								PK	PK	PK	PK
6.3. Maintenance of hand tools and equipment								PK	PK	PK	PK
6.4. Maintain											
6.4.1. Handtools								PK	PK	PK	PK
6.4.2. Portable power tools								PK	PK	PK	PK
6.4.3. Shop-installed equipment								PK	PK	PK	PK
6.4.4. Laser level									PK	PK	PK
6.4.5. Powder actuated tools									PK	PK	PK
6.4.6. Scaffolds and ladders									PK	PK	PK
6.4.7. Mobile work platforms									PK	PK	PK
7.0. CONCRETE STRUCTURES											
TR: NAVEDTRA 14043, 14044, 14045, and 14251											
Note: QTP available											
7.1. Prepare subgrade								K	PK	PK	PK
7.2. Concrete reinforcement											
7.2.1. Install reinforcing steel								PK	PK	PK	PK
7.2.2. Install wire mesh								PK	PK	PK	PK
7.3. Concrete forms								K	PK	PK	PK
7.4. Construct, install and remove forms											
7.4.1. Footings								K	PK	PK	PK
7.4.2. Piers								K	PK	PK	PK
7.4.3. Columns								K	PK	PK	PK
7.4.4. Slabs								K	PK	PK	PK
7.4.5. Steps								K	PK	PK	PK
7.4.6. Ramps								K	PK	PK	PK
7.4.7. Walls								K	PK	PK	PK
7.4.8. Earth								K	PK	PK	PK
7.5. Construct batter boards								PK	PK	PK	PK
7.6. Install expansion and contraction joints								PK	PK	PK	PK

7.7. Concrete											
7.7.1. Principles of concrete								K	PK	PK	PK
7.7.2 Mix ingredients to meet project specifications								K	PK	PK	PK
7.7.3. Demonstrate the proper use of admixtures								K	PK	PK	PK
7.7.4. Place concrete in forms								K	PK	PK	PK
7.7.5. Consolidate concrete								K	PK	PK	PK
7.7.6. Install anchor bolts (J-bolt, Wedge, Expansion)								K	PK	PK	PK
7.7.7. Finish concrete								K	PK	PK	PK
7.7.8. Cure concrete								K	PK	PK	PK
7.7.9. Inspect concrete for defects								K	PK	PK	PK
7.7.10. Repair concrete								K	PK	PK	PK
8.0. STRUCTURAL LAYOUT and FRAMING COMPONENTS											
TR: NAVEDTRAs 14043, 14044, and and 14045; UFGS-06 10 00											
Note: QTP available											
8.1. Structural framing principles								K	K	K	K
8.2. Construct											
8.2.1. Floors									PK	PK	PK
8.2.2. Stair members									PK	PK	PK
8.2.3. Wall studs								K	PK	PK	PK
8.2.4. Ceilings									PK	PK	PK
8.2.5. Roofs											
8.2.5.1. Trusses									PK	PK	PK
8.2.5.2. Rafters									PK	PK	PK
9. EXTERIOR CONSTRUCTION AND FINISHING											
TR: NAVEDTRAs 14043, 14044, and 14045; UFGS-06 20 00											
9.1. Exterior construction principles									K	K	K
9.2. Install											
9.2.1. Metal siding								K	PK	PK	PK
9.2.2. Wood siding								K	PK	PK	PK
9.2.3. Vents								K	PK	PK	PK
9.2.4. Louvers								K	PK	PK	PK
9.2.5. Exterior trim								K	PK	PK	PK
9.3. Repair											
9.3.1. Metal siding								K	PK	PK	PK
9.3.2. Wood siding								PK	PK	PK	PK
9.4. Construct wooden fences								K	PK	PK	PK
9.5. Replace screen fabric								PK	PK	PK	PK
9.6. Replace glass								PK	PK	PK	PK
9.7. Cut glass								PK	PK	PK	PK
9.8. Cut acrylic sheets								PK	PK	PK	PK

10.0. MASONRY CONSTRUCTION AND MAINTENANCE											
TR: NAVEDTRAs 14043, 14044, 14045, and 14251 Building with Masonry by Kreh											
Note: QTP available											
10.1. Components of masonry construction								K	K	K	K
10.2. Prepare mortar								K	PK	PK	PK
10.3. Lay Masonry Units											
10.3.1. Brick									PK	PK	PK
10.3.2. Block								K	PK	PK	PK
10.4. Install Reinforcement											
10.4.1. Prefabricated wire joint reinforcement								K	PK	PK	PK
10.4.2. Structural reinforcing bars								K	PK	PK	PK
10.5. Install anchor bolts (J-bolts)								K	PK	PK	PK
10.6. Construct control joints								K	PK	PK	PK
10.7. Construct Openings											
10.7.1. Brick								K	PK	PK	PK
10.7.2. Block								K	PK	PK	PK
10.8. Repair masonry units								K	PK	PK	PK
10.9. Plaster and Stucco											
TR: NAVEDTRAs 14044 and 14045; UFGS-09 23 00; UFGS-09 24 23											
10.9.1. Apply											
10.9.1.1. Plaster									PK	PK	PK
10.9.1.2. Stucco									PK	PK	PK
10.9.2. Patch											
10.9.2.1. Plaster									PK	PK	PK
10.9.2.2. Stucco									PK	PK	PK
11.0. ROOFING SYSTEMS											
TR: UFC 3-110-03; NAVEDTRAs 14044, 14045, and 14251, TM 5-617											
Note: QTP available											
11.1. Install Low-slope Roof Systems											
11.1.1. Built-up roof									PK	PK	PK
11.1.2. Modified bitumen									PK	PK	PK
11.1.3. Metal									PK	PK	PK
11.1.4. Composition roll roofing									PK	PK	PK
11.2. Repair Low-slope Roof Systems											
11.2.1. Built-up roof									PK	PK	PK
11.2.2. Modified bitumen									PK	PK	PK
11.2.3. Metal									PK	PK	PK
11.2.4. Composition roll roofing									PK	PK	PK
11.2.5 Steep-slope roofing systems									PK	PK	PK

11.3. Install Steep-slope Roof Systems											
11.3.1. Tile									PK	PK	PK
11.3.2. Composition shingles								K	PK	PK	PK
11.3.3. Metal									PK	PK	PK
11.4. Repair Steep-slope Roof Systems											
11.4.1. Tile									PK	PK	PK
11.4.2. Composition shingles								K	PK	PK	PK
11.4.3. Metal									PK	PK	PK
11.5. Inspect Roof Systems											
TR: AFI 32-1001											
11.5.1. Low-slope									PK	PK	PK
11.5.2. Steep-slope									PK	PK	PK
11.6. Gutter Systems											
11.6.1. Fabricate								K	PK	PK	PK
11.6.2. Install								K	PK	PK	PK
11.6.3. Repair									PK	PK	PK
11.7. Flashing											
11.7.1. Fabricate									PK	PK	PK
11.7.2. Install									PK	PK	PK
11.7.3. Repair									PK	PK	PK
11.7.4. Manage roofing program									PK	PK	PK
12.0. FINISH CARPENTRY											
TR: NAVEDTRAs 14044 and 14045; UFGS-06 20 00; UFGS-09 29 00											
Note: QTP available											
12.1. Walls									PK	PK	PK
12.2. Install wall paneling									PK	PK	PK
12.3. Gypsum Board											
12.3.1. Install									PK	PK	PK
12.3.2. Finish									PK	PK	PK
12.3.3. Patch									PK	PK	PK
12.4. Flooring											
12.5. Install Floor Coverings											
12.5.1. Vinyl									PK	PK	PK
12.5.2. Wood									PK	PK	PK
12.6. Repair Floor Coverings											
12.6.1. Vinyl									PK	PK	PK
12.6.2. Wood									PK	PK	PK
12.7. Ceilings											
12.8. Install Ceiling Systems											
12.8.1. Acoustical Tile									K	PK	PK
12.8.2. Suspended ceiling									K	PK	PK

12.9. Repair Ceiling Components											
12.9.1. Acoustical Tile								K	PK	PK	PK
12.9.2. Suspended ceiling								K	PK	PK	PK
12.10. Interior Trim											
12.10.1. Install								K	PK	PK	PK
12.10.2. Repair								K	PK	PK	PK
13.0. MASONRY WALL/FLOOR TILE INSTALLATION AND MAINTENANCE											
TR: NAVEDTRAs 14043, 14044 and 14045											
13.1. Installation methods									PK	PK	PK
13.2. Prepare surface to receive adhesive									PK	PK	PK
13.3. Lay out areas to receive tile									PK	PK	PK
13.4. Apply adhesive method								K	PK	PK	PK
13.5. Apply thin set method								K	PK	PK	PK
13.6. Set tile								K	PK	PK	PK
13.7. Cut tile								K	PK	PK	PK
13.8. Install fixtures									PK	PK	PK
13.9. Apply grout								K	PK	PK	PK
13.10. Replace tile								K	PK	PK	PK
13.11. Replacement methods								K	PK	PK	PK
14.0. PROTECTIVE COATINGS											
TR: NAVEDTRAs 14044 and 14045											
14.1. Finishes									PK	PK	PK
14.2. Apply protective coatings									PK	PK	PK
15.0. PERSONNEL DOOR AND WINDOW MAINTENANCE											
TR: NAVEDTRAs 14043, 14044 and 14045											
Note: QTP available											
15.1. Components									K	K	K
15.2. Install Personnel Door Units											
15.2.1. Wood									PK	PK	PK
15.2.2. Metal									PK	PK	PK
15.2.3. Glass									PK	PK	PK
15.3. Repair Personnel Door Units											
15.3.1. Wood									PK	PK	PK
15.3.2. Metal									PK	PK	PK
15.3.3. Glass									PK	PK	PK
15.4. Install window units									PK	PK	PK
15.5. Repair window units									PK	PK	PK

15.6. Personnel Door Hardware											
15.6.1. Install door closures									PK	PK	PK
15.6.2. Adjust door closures									PK	PK	PK
15.6.3. Adjust thresholds									PK	PK	PK
15.6.4. Adjust hinges									PK	PK	PK
16.0. LOCKSMITHING											
TR: NAVEDTRA 14044; AFI 31-101; FED-STD-809D; Manufacturer's Instructions											
Note: QTP available											
16.1. Implement master key system									PK	PK	PK
16.2. Cut keys									PK	PK	PK
16.3. Locking devices									PK	PK	PK
16.4. Install Locking Devices											
16.4.1. Cylinder locks									PK	PK	PK
16.4.2. Mortise locks									PK	PK	PK
16.4.3. Cipher locks									PK	PK	PK
16.4.4. Panic hardware/exit device									PK	PK	PK
16.5. Repair Locking Devices											
16.5.1. Cylinder locks									PK	PK	PK
16.5.2. Mortise locks									PK	PK	PK
16.5.3. Cipher locks									PK	PK	PK
16.5.4. Panic hardware									PK	PK	PK
16.6. GSA equipment									PK	PK	PK
16.7. High Security Electronic Locks											
16.7.1. Components and functions									PK	PK	PK
16.7.2. X-Series locks											
16.7.2.1. Install									PK	PK	PK
16.7.2.2. Set combination									PK	PK	PK
16.7.3. CDX- Series locks											
16.7.3.1. Install									PK	PK	PK
16.7.3.2. Life safety exit devices									PK	PK	PK
16.7.4. Perform field expedient entry on GSA containers									PK	PK	PK
16.8. Expedient Locksmithing											
16.8.1. Security containers with combination locks									PK	PK	PK
16.8.2. Principles of dial combination locks									PK	PK	PK
16.8.3. Open combination locks									PK	PK	PK
16.8.4. Force entry of combination locks									PK	PK	PK
16.8.5. Inspect and perform preventative maintenance									PK	PK	PK

17.0. WOODWORKING										
TR: NAVEDTRAs 14043, 14044 and 14045										
17.1. Cabinetry								PK	PK	PK
17.2. Install countertops								PK	PK	PK
17.3. Install cabinet hardware								PK	PK	PK
17.4. Apply laminated plastics								PK	PK	PK
17.5. Install cabinets								PK	PK	PK
18.0. ENERGY-CONSERVING MATERIAL										
18.1. Conservation methods								K	K	K
18.2. Install thermal insulation								PK	PK	PK
18.3. Apply caulking compound								PK	PK	PK
18.4. Install weather stripping								PK	PK	PK
19.0. METAL/FIBERGLASS COMPONENT FABRICATION AND INSTALLATION										
TR: NAVEDTRAs 14250 and 14251; AFMAN 91-203; T.O. 34W4-1-5										
Note: QTP available										
19.1. Fabrication methods								K	K	K
19.2. Layout Metal Components using:										
19.2.1. Parallel line development								PK	PK	PK
19.2.2. Radial line development								PK	PK	PK
19.2.3. Triangulation development								PK	PK	PK
19.3. Fabricate Metal Components										
19.3.1. Rectangular								PK	PK	PK
19.3.2. Round								PK	PK	PK
19.3.3. Rectangular-to-round transition								PK	PK	PK
19.4. Assemble metal components using appropriate fasteners								PK	PK	PK
19.5. Installation methods								PK	PK	PK
19.6. Install Duct Systems										
19.6.1. Sheet metal ducts								PK	PK	PK
19.6.2. Flex Duct								PK	PK	PK
19.6.3. Rectangular-to-round transition								PK	PK	PK
19.6.4. Stacks								PK	PK	PK
19.6.5. Ventilators								PK	PK	PK
19.7. Install Fixed Utility Equipment										
19.7.1. Tabletops								PK	PK	PK
19.7.2. Counter tops								PK	PK	PK
19.7.3. Overhead canopies								PK	PK	PK
19.7.4. Hoods								PK	PK	PK
19.7.5. Doors								PK	PK	PK
19.8. Repair fiberglass duct board								PK	PK	PK

20.0. VEHICLE AND EQUIPMENT FACILITY DOORS AND GATES										
TR: Manufacturer's Instructions										
20.1. Inspect										
20.1.1. Overhead doors								PK	PK	PK
20.1.2. Rollup doors								PK	PK	PK
20.2. Installation requirements								PK	PK	PK
20.3. Install										
20.3.1. Overhead doors								PK	PK	PK
20.3.2. Roll-up door								PK	PK	PK
20.3.3. Door operators								PK	PK	PK
20.3.4. Manual gates								PK	PK	PK
20.3.5. Mechanical gates								PK	PK	PK
20.4. Maintenance requirements							K	PK	PK	PK
20.5. Maintain										
20.5.1. Overhead doors								PK	PK	PK
20.5.2. Roll-up doors								PK	PK	PK
20.5.3. Door operators								PK	PK	PK
20.5.4. Aircraft hangar doors								PK	PK	PK
20.6. Hardened Aircraft Shelter Doors										
TR: USAFEI 32-1004										
20.6.1. Maintain								PK	PK	PK
20.6.2. Repair								PK	PK	PK
20.6.3. Door adjustment								PK	PK	PK
20.6.4. Roller replacement								PK	PK	PK
20.7. Manual gates								PK	PK	PK
20.8. Mechanical gates								PK	PK	PK
21.0. METAL CUTTING AND WELDING										
TR: NAVEDTRA 14250; Manufacturer's Instructions; DAFMAN 91-203; T.O. 34W4-1-5										
Note: QTP available										
21.1. Oxyacetylene										
21.1.1. Principles							K	PK	PK	PK
21.1.2. Metal identification							K	PK	PK	PK
21.1.3. Set up equipment							K	PK	PK	PK
21.1.4. Perform oxyacetylene welding TR: T.O. 34W4-1-5								PK	PK	PK
21.1.5. Perform cutting							K	PK	PK	PK
21.1.6. Use equipment to form metal components								PK	PK	PK
21.1.7. Maintain equipment							K	PK	PK	PK

21.2. Plasma Arc Systems										
TR: NAVEDTRA 14250; Manufacturer's Instructions										
21.2.1. Principles							K	K	K	K
21.2.2. Set up equipment							PK	PK	PK	PK
21.2.3. Perform cutting							PK	PK	PK	PK
21.2.4. Maintain equipment							K	PK	PK	PK
22.0. SHIELDED METAL ARC WELDING										
TR: NAVEDTRA 14250; Manufacturer's Instructions; AFMAN 91-203; T.O. 34W4-1-5										
Note: QTP available										
22.1. Principles of shielded metal arc welding							K	K	K	K
22.2. Select arc welding equipment for specific tasks							K	PK	PK	PK
22.3. Select the electrodes for specific welding jobs								PK	PK	PK
22.4. Set up welding machine for a specific welding job							K	PK	PK	PK
22.5. Prepare joints for welding							PK	PK	PK	PK
22.6. Use Shielded Metal Arc Welding Equipment to Weld Carbon Steel										
22.6.1. Butt Joint Positions										
22.6.1.1. Flat							PK	PK	PK	PK
22.6.1.2. Horizontal								PK	PK	PK
22.6.1.4. Overhead								PK	PK	PK
22.6.2. Lap Joint Positions										
22.6.2.1. Flat							PK	PK	PK	PK
22.6.2.2. Horizontal								PK	PK	PK
22.6.2.3. Vertical								PK	PK	PK
22.6.2.4. Overhead								PK	PK	PK
22.6.3. Tee Joint Positions										
22.6.3.1. Flat							PK	PK	PK	PK
22.6.3.2. Horizontal								PK	PK	PK
22.6.3.3. Vertical								PK	PK	PK
22.6.3.4. Overhead								PK	PK	PK
22.6.4. Edge Joint Positions										
22.6.4.1. Flat							PK	PK	PK	PK
22.6.4.2. Horizontal								PK	PK	PK
22.6.4.3. Vertical								PK	PK	PK
22.6.4.4. Overhead								PK	PK	PK
22.7. Equipment maintenance requirements							K	K	K	K
22.8. Maintain shielded metal arc welding equipment								PK	PK	PK
22.9. Hard surface welding								K	K	K
22.10. Perform hard-surfacing welding								PK	PK	PK

23.0. TUNGSTEN INERT GAS (TIG) WELDING											
TR: NAVEDTRA 14250; Manufacturer's Instructions; AFMAN 91-203; T.O. 34W4-1-5											
23.1. Principles of tungsten inert gas welding									K	K	K
23.2. Select tungsten inert gas welding equipment for specific jobs									PK	PK	PK
23.3. Set up welding machine for specific job									PK	PK	PK
23.4. Use Tungsten Inert Gas Welding Equipment to Weld Carbon Steel											
23.4.1. Butt Joint Positions											
23.4.1.1. Flat									PK	PK	PK
23.4.1.2. Horizontal									PK	PK	PK
23.4.1.3. Vertical									PK	PK	PK
23.4.1.4. Overhead									PK	PK	PK
23.4.2. Lap Joint Positions											
23.4.2.1. Flat									PK	PK	PK
23.4.2.2. Horizontal									PK	PK	PK
23.4.2.3. Vertical									PK	PK	PK
23.4.2.4. Overhead									PK	PK	PK
23.4.3. Tee Joint Positions											
23.4.3.1. Flat									PK	PK	PK
23.4.3.2. Horizontal									PK	PK	PK
23.4.3.3. Vertical									PK	PK	PK
23.4.3.4. Overhead									PK	PK	PK
23.4.4 Edge Joint Positions											
23.4.4.1. Flat									PK	PK	PK
23.4.4.2. Horizontal									PK	PK	PK
24.4.4.3. Vertical									PK	PK	PK
24.4.4.4. Overhead									PK	PK	PK
23.5. Use tungsten inert gas welding equipment to weld corrosion resistant alloy									PK	PK	PK
23.6. Use tungsten inert gas welding equipment to weld non-ferrous alloy									PK	PK	PK
23.7. Equipment maintenance requirements									K	K	K
23.8. Maintain tungsten inert gas equipment									PK	PK	PK
24.0 METALLIC INERT GAS (MIG) WELDING											
TR: NAVEDTRA 14250; Manufacturer's Instructions; AFMAN 91-203; T.O. 34W4-1-5											
Note: QTP available											
24.1. Principles of metallic inert gas welding									K	K	K
24.2. Select metallic inert gas welding equipment for specific jobs									PK	PK	PK
24.3. Set up welding machine for specific job									PK	PK	PK

24.4. Use Metallic Inert Gas Welding Equipment to Weld Carbon Steel											
24.4.1. Butt Joint Positions											
24.4.1.1. Flat								PK	PK	PK	PK
24.4.1.2. Horizontal									PK	PK	PK
24.4.1.3. Vertical									PK	PK	PK
24.4.1.4. Overhead									PK	PK	PK
24.4.2. Lap Joint Positions											
24.4.2.1. Flat								PK	PK	PK	PK
24.4.2.2. Horizontal									PK	PK	PK
24.4.2.3. Vertical									PK	PK	PK
24.4.2.4. Overhead									PK	PK	PK
24.4.3. Tee Joint Positions											
24.4.3.1. Flat								PK	PK	PK	PK
24.4.3.2. Horizontal									PK	PK	PK
24.4.3.3. Vertical									PK	PK	PK
24.4.3.4. Overhead									PK	PK	PK
24.4.4. Edge Joint Positions											
24.4.4.1. Flat									PK	PK	PK
24.4.4.2. Horizontal									PK	PK	PK
24.4.4.3. Vertical									PK	PK	PK
24.4.4.4. Overhead									PK	PK	PK
24.5. Use metallic inert gas welding equipment to weld corrosion resistant alloy									PK	PK	PK
24.6. Use metallic inert gas welding equipment to weld non-ferrous alloy									PK	PK	PK
24.7. Equipment maintenance requirements								K	K	K	K
24.8. Maintain metallic inert gas equipment								PK	PK	PK	PK

Attachment 3

Air Force Qualification Training Package Tracker

A3. AFQTP Documentation Record.

A3.1. To ensure each Craftsman is trained to the correct standard an AF Qualification Training Package (AFQTP) has been developed for each task group identified in their STS. These AFQTPs are to be used by the trainee, trainer, and certifier in their on-the-job-training program for qualification training and developmental training.

A3.2. These AFQTPs ensure all aspects of the task are covered sufficiently and provide additional task knowledge, in preparation for hands-on training. AFQTPs summarize procedures on a task performance checklist for use by trainers, certifiers, and trainees.

A3.2.1. The UTM or supervisor can download paper based AFQTP's. Paper-based AFQTP's are found on [CE DASH](#) under documents in the AFQTP folder.

A3.2.2. In addition to the paper-based AFQTPs there are web-based courses or assessments developed for certain tasks that are available on [myLearning](#) under AFCEC in the Home Station topic area.

A3.3. Documentation. Before a task can be signed off in the JQS section of the individual automated training record, the task must be signed off in the QTP section first.

A3.4. 3E3X1WG AFQTP Tracker.

Task Number	Tasks, Knowledge, and Technical References	Tasks		Certification of AFQTPs			
		A/H	J/C	Tng Start	Tng Complete	Trainee Initials	Trainer Initials
1.0.	CIVIL ENGINEER (CE) CORE CONCEPTS						
1.1.	Accomplish CE 5-Level Core Concepts Course						
1.2.	Accomplish CE 7-Level Core Concepts Course						
2.0.	AFS SPECIFIC SAFETY						
2.3.	Identify hazards						
2.4.	Plan hazard abatement						
2.5.	Exercise Safety Precautions when:						
2.5.5.	Handling compressed gas containers						
2.5.7.	Performing Lockout/Tag out procedures						
2.7.	Fall Protection Awareness						
2.7.1.	Purpose						
2.7.2.	Fall Protection plan						
2.7.3.	Rescue plan						
2.7.5.	Fall Protection Equipment						
2.7.5.1.	Inspect						
2.7.5.2.	Demonstrate proper use						
2.7.5.3.	Maintain						
4.0.	SUSTAINMENT MANAGEMENT SYSTEMS (SMS)						
4.2.	Document inspections into BUILDER						
4.3	Attend AFIT WMGT 131 SMS Builder Level 1 course						
5.0.	PROJECT PLANNING						
5.7.	Use Construction Drawings for:						
5.7.1.	Carpentry						
5.7.2.	Masonry						
5.7.3.	Metalwork						
5.9.	Identify Types of Material Required for:						
5.9.1.	Carpentry						
5.9.2.	Masonry						
5.9.3.	Metalwork						
5.11.	Establish Quantity of Material Required for:						
5.11.1.	Carpentry						
5.11.2.	Masonry						
5.11.3.	Metalwork						
7.0.	CONCRETE STRUCTURES						
7.2.	Concrete Reinforcement						
7.2.1.	Install reinforcing steel						

Task Number	Tasks, Knowledge, and Technical References	Tasks		Certification of AFQTPs			
		A/H	J/C	Tng Start	Tng Complete	Trainee Initials	Trainer Initials
7.4.	Construct						
7.4.4.	Slabs						
7.4.7.	Walls						
7.7.	Concrete						
7.7.4.	Place concrete in forms						
7.7.7.	Finish concrete						
8.0.	STRUCTURAL LAYOUT and FRAMING COMPONENTS						
8.2.	Construct						
8.2.1.	Floors						
8.2.2.	Stair members						
8.2.3.	Wall studs						
8.2.5.	Roofs						
8.2.5.1.	Trusses						
8.2.5.2.	Rafters						
10.0.	MASONRY CONSTRUCTION AND MAINTENANCE						
10.2.	Prepare mortar						
10.3.	Lay Masonry Units						
10.3.2.	Block						
11.0.	ROOFING SYSTEMS						
11.2	Attend Roof Installation, Maintenance, Inspection and Repair course						
11.8.	Inspect Roof Systems						
11.8.1.	Low-slope						
11.8.2.	Steep-slope						
12.0.	FINISH CARPENTRY						
12.3.	Gypsum Board						
12.3.1.	Install						
12.3.2.	Finish						
12.3.3.	Patch						
12.8.	Install ceiling systems						
12.8.2.	Suspended ceiling						
15.0.	PERSONNEL DOOR AND WINDOW MAINTENANCE						
15.2.	Install Personnel Door Units						
15.2.1.	Wood						
15.2.2.	Metal						
15.6.	Personnel Door Hardware						
15.6.1.	Install door closures						
16.0.	LOCKSMITHING						
16.4.	Install Locking Devices						
16.4.1.	Cylinder locks						
16.4.4.	Panic hardware/exit device						
19.0.	METAL/FIBERGLASS COMPONENT FABRICATION AND INSTALLATION						
19.2.	Layout Metal Components using:						
19.2.1.	Parallel line development						

Task Number	Tasks, Knowledge, and Technical References	Tasks		Certification of AFQTPs			
		A/H	J/C	Tng Start	Tng Complete	Trainee Initials	Trainer Initials
19.6.	Install Duct Systems						
19.6.1.	Sheet metal ducts						
20.0.	VEHICLE AND EQUIPMENT FACILITY DOORS AND GATES						
20.1.	Inspect						
20.1.1.	Overhead doors						
20.1.2.	Rollup doors						
20.5.	Maintain						
20.5.1.	Overhead doors						
20.5.2.	Roll-up doors						
21.0.	METAL CUTTING AND WELDING						
21.1.	Oxyacetylene						
21.1.3.	Set up equipment						
21.1.5.	Perform cutting						
21.2.	Plasma Arc Systems						
21.2.2.	Set up equipment						
21.2.3.	Perform cutting						
22.0.	SHIELDED METAL ARC WELDING						
22.4.	Set up welding machine for a specific welding job						
22.5.	Prepare joints for welding						
22.6.	Use Shielded Metal Arc Welding Equipment to Weld Carbon Steel						
22.6.1.	Butt Joint Positions						
22.6.1.1.	Flat						
22.6.2.	Lap Joint Positions						
22.6.2.2.	Horizontal						
22.6.3.	Tee Joint Positions						
22.6.3.3.	Vertical						
24.0.	METALLIC INERT GAS (MIG) WELDING						
24.3.	Set up welding machine for specific job						
24.4.	Use Metallic Inert Gas Welding Equipment to Weld Carbon Steel						
24.4.1.	Butt Joint Positions						
24.4.1.2.	Horizontal						
24.4.2.	Lap Joint Positions						
24.4.2.3.	Vertical						
24.4.3.	Tee Joint Positions						
24.4.3.1.	Flat						