COMMUNITY MANAGEMENT

SECTION IV

NAVFAC Design and Construction Business Line Community Management Plan

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COMMUNITY MANAGEMENT - SECTION IV

NAVFAC Design and Construction Business Line (DCBL)
Community Management Plan

Table of Contents **Page**

Foreword

The NAVFAC Design and Construction (DC) Community Management Plan (CMP) is a living document that is updated regularly with substantive changes for DC professionals. We are committed to helping our DC Workforce grow personally and professionally. The DC CMP is a resource document providing the information necessary to assist you in planning a challenging and rewarding career.

The updated CMP provides clear developmental paths for members of the Design and Construction Business Line to grow and eventually assume a variety of senior positions within the Command. The paths vary depending on technical depth, Command breadth of knowledge, supervisory responsibilities, project and program management complexity, and leadership influence required. All positions are necessary and rely on different skill sets to be successful. The employee should assess their skills and desires with the matrix below and chart their own course to achieve the senior level position they desire.

Your career as a DC professional will involve a progression of education, training, experience, and assignments. Your career planning will entail integrating your individual desires, needs, and qualifications with the requirements of service. Properly managed and executed, career planning can satisfy both your needs and the needs of the Navy. Every person in DC is encouraged to work with their supervisor to develop their roadmap and Individual Development Plan (IDP) to attain their goals.

Ideally, DC professionals should seek a succession of jobs/experiences that ensure personal development to improve proficiencies, become more competitive, and meet the challenges of future assignments. These roadmaps, in addition to other resources, should be used to create meaningful IDPs and map short and long term career path and goals.

The DC Community serves as the Navy's facilities engineering and technical experts. Our mission is to deliver timely, adaptable, sustainable, innovative and technology-leveraged solutions and advice that, through professional and life-cycle management, meet the client's operational and quality of service requirements. The successful growth and performance of the DC Community constitutes an important core competency for NAVFAC. We must all focus on building upon our professional talents and capabilities in a manner that targets improved capability for both peacetime and wartime operations.

For those in an Engineering or Architectural series please refer to Section III of the Community Management Framework (CMF) – Engineering and Architecture CMF. Within this framework you will find broad competencies for each engineer and/or architect regardless of Community (or Business Line) or Technical Domain. This CMF is focused on basic competencies and foundation building including core technical competencies, core education and training, professional licensing requirement, and experiences.

For those on the Project Manager track please refer to Section III of the CMF – NAVFAC Project Management (PM) CMF. The PM CMF provides a framework for the definition, assessment, and development of PM competence and also lays the foundation for the NAVFAC PM culture.

To meet future needs, we must begin today to reinforce the engineering expertise that the Navy will continue to need, as well as shape our workforce capability by implementing disciplined human resource strategies. I encourage you to read the DC Community Management Plan, and others as appropriate, work with your supervisor and plan your career accordingly.

NAVFAC Design and Construction Business Line
Community Management Plan

I. Community Description.

The Design and Construction Business Line (DCBL) is responsible for the Design and Construction of Navy, Marine Corps, and other supported command's facilities and infrastructure. We are the Naval Forces' trusted design and construction experts enabling overwhelming Fleet and Marine Corps lethality. DCBL's major focus areas include Reducing Mission Risk (e.g. Cradle-to-Grave Project Risk Management), Rapid Process Innovation (e.g. MILCON Processes), Strengthening Facilities Expertise (e.g. establishing premiere Naval-unique expertise and team agility), and Improving IT Tools and Financial Resources (e.g. storage, mobility, & Data Analytics). The DCBL provides technical engineering support through four NAVFAC Product & Services (P&S): Design, Construction, Ocean Engineering, and Specialized Technical Services. The DCBL at Echelon II is responsible for policy, resource allocation, workforce shaping, community management, electronic tool solutions, process improvements, and workload projections for all design and construction work.

Due to the specialized nature of the work at the NAVFAC Engineering and Expeditionary Warfare Center (EXWC), community management of Ocean Engineering (i.e. Facilities and Equipment) and Shore Facilities Technology Development and Evaluation are covered in separate plans.

II. Community Vision.

Our mission is to deliver timely, adaptable, sustainable, innovative and technology-leveraged solutions and advice that meets the client's operational, cost, schedule, and quality of service requirements in a safe and environmentally compliant manner.

As the Department of the Navy faces new global challenges, it is critical that we all seek ways to improve our ability to contribute to the Navy and Marine Corps missions. We must all build upon our professional talents and capabilities in a manner that targets improved capability for both peacetime and wartime operations. NAVFAC has strategically focused this goal into the following focus areas:

A. **Enable Warfighter Lethality**. *Distributed Maritime Operations* – Improve Military Construction and project development, design, execution, and oversight to reduce cycle time from requirement conception to delivery.

B. **Strengthen Our SYSCOM Team**. *People* – Fill our team with highly qualified, motivated people and invest in them to strengthen capability and enthusiasm for our mission. *Financial Integrity* – Operate transparent, auditable and authoritative business systems that align expenditures with resourcing intent. *Analytical Decision-Making* –

Develop robust business analytics capability to facilitate rapid learning, delineate the relationships between resources and P&S delivery, and improve processes and output.

C. **Maximize Naval Shore Readiness.** *Product & Service Performance* – Safely deliver quality, timely and cost effective products and services through collaborative partnerships. *Infrastructure Capability* – Advance our knowledge of inventory, condition, criticality and cyber security of assets and systems to inform investment decisions and improve facilities and utilities readiness.

You should work very closely with your supervisor to maintain an updated Individual Development Plan (IDP). This comprehensive plan is designed to help you grow and achieve success through a blended learning environment made up of both formal and informal methods. These methods include a variety of methods such as:

1) In-house Experience – We consider the entire employee experience from onboarding to retirement. Our career development process starts with an extensive onboarding program that includes information about benefits and company systems, as well as training on values, ethics, health, safety, security, and the environment. Our "Recent College Graduates" program is a four-year developmental program for all engineers and architects. See the Engineering and Architecture Community Management Framework in Section III. It is imperative that you have real experience is in-house design, construction management, and project management. The best way to learn is by doing.
2) Professional Credentials – Credentialing is a method to assess competency, ensure sustainment of that competency via continuous education, and ensure the highest ethics in the performance of your duties. While maintaining licenses and professional development is your responsibility, we are committed to helping you successfully meet professional-designation, license-renewal requirements and promote the common goals and values within your profession.
3) Performance Reviews – The annual performance review process helps you set clearly defined goals and objectives. Through assessments and reviews, and with assistance from supervisors, you can measure achievements, fine-tune individual contributions, identify career development and training opportunities, and establish strategic performance objectives.
4) Professional Training – We use the eLearning platforms to the greatest extent possible to improve access to learning options and reduce travel costs; but we also recognize the benefit of live training and offer in-person courses, including supervisory and leadership, safety, and project management programs.
5) Mentoring – Our mentoring opportunities provide you with guidance and support to reach your full potential. It is a two-way relationship with both partners gaining significant benefits, both personally and professionally.
6) Graduate Education – Many of our engineering and architecture projects require specialized expertise that can be obtained with a Master's Degree. We know that

continuing education is a challenge for working professionals, but it is an important part of furthering talents and knowledge. We support your efforts and dedication with flexible hours and a tuition-assistance program for master's degree opportunities.

7) Global Experiences – Working in different locations, allows you to broaden your perspective and increase your understanding of the world around you. At NAVFAC, you have the opportunity to take part in global and collaborative work experiences across geographical and business lines by accepting a rotation to one of our overseas locations for 2-3 years with a guaranteed position (i.e. return rights) when you return.

III. Community Structure: Senior Leadership Positions and Functional Areas

This Community Management Plan provides clear developmental paths for members of the Design and Construction Business Line to grow and eventually assume a variety of senior positions within the Command. The paths vary depending on technical depth, Command breadth of knowledge, supervisory responsibilities, project management complexity, and leadership influence required. All positions are necessary and rely on different skill sets to be successful. The employee should assess their skills and desires with the matrix below and chart their own course to achieve the senior level position they desire. The senior positions and necessary competencies are identified in the table below rated with five being highest:

NAVFAC Headquarters:

Senior Position	Echelon	Grade	Technical Depth	Command Breadth	Supervisory Responsibilities	Proj Mgmt Complexity	Leadership Influence
DCBL	II	SES	5	5	5	5	5
Deputy DCBL	II	GS-15	4	4	5	4	5
Deputy CHENG	II	GS-15	5	4	4	3	5
Director MILCON	II	GS-15	3	3	5	5	5
Director MFPO	II	GS-15	4	3	4	4	4
Director Criteria	II	GS-15	5	4	4	5	5
Director Proj Mgmt	II	GS-15	4	4	3	5	5
Director Bus & Resources	II	GS-15	3	4	3	5	5
Director of Design	II	GS-15	5	4	4	4	4
Director of Construction	II	GS-15	5	4	4	4	5
Specialized Prog Mgmt	II	GS-15	4	4	3	4	4
Director Shore & Ocean Inn	II	GS-15	5	5	3	3	5

NAVFAC Atlantic/Pacific:

Senior Position	Echelon	Grade	Technical Depth	Command Breadth	Supervisory Responsibilities	Proj Mgmt Complexity	Leadership Influence
DCBL	III	GS-15	5	4	5	4	5
Director of PM	III	GS-14	4	4	3	5	5
Director Bus & Resources	III	GS-14	3	4	4	4	4
PA Community Leader	III	GS-14	3	4	3	4	5
Director of Design	III	GS-14	5	4	4	4	4
Director of Construction	III	GS-14	5	4	3	4	5

NAVFAC Field Engineering Commands:

Senior Position	Echelon	Grade	Technical Depth	Command Breadth	Supervisory Responsibilities	Proj Mgmt Complexity	Leadership Influence
DCBL	IV	GS-15	5	3	5	4	5
Director of Bus & Resources	IV	GS-14	3	3	4	4	4
Director of Design	IV	GS-14	5	3	4	4	4
Director of Construction	IV	GS-14	5	3	3	4	4

Figure 1 below shows the career progression for members of the Design and Construction Business Line. Career development and progression is achieved by building upon the required qualifications and technical competencies for lateral and promotional movement. As previously stated the paths vary depending on technical depth, Command breadth of knowledge, supervisory responsibilities, project management complexity, and leadership influence required. All positions are necessary and rely on different skill sets to be successful.

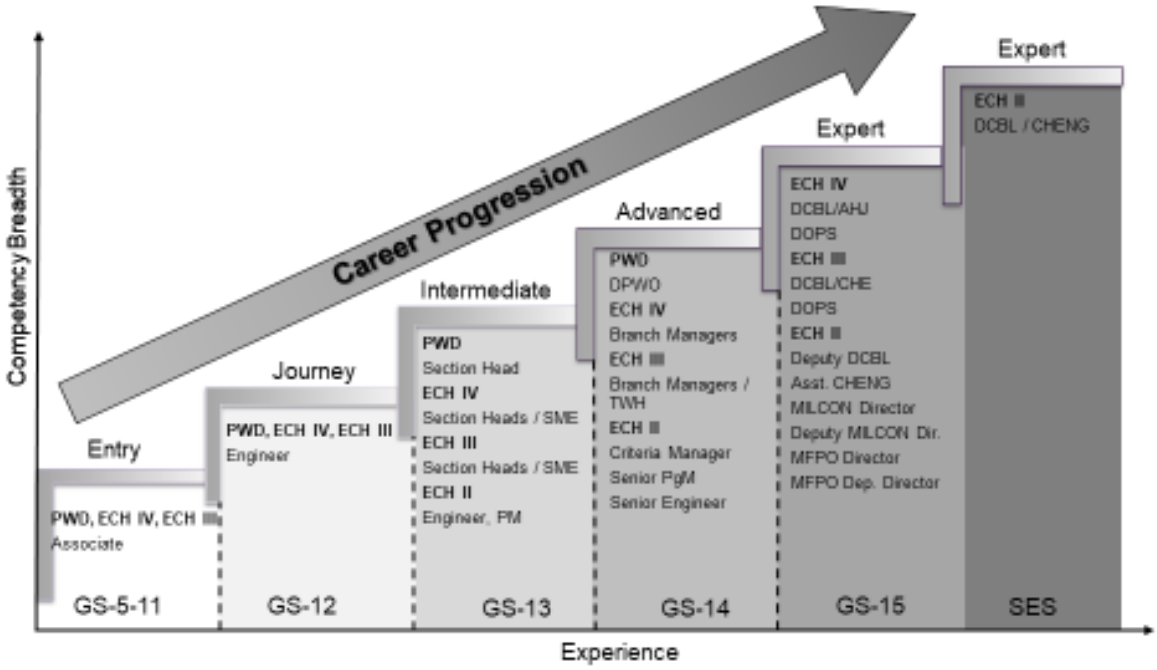


Figure 1. Career Progression

The Design and Construction Business Line consists of the following:

A. **Design and Construction Business Line Leaders primary organizational relationships**.

- **Echelon II (HQ) Design and Construction Business Line (DCBL) Director.** The Design and Construction Business Line Director is dual-hatted as the NAVFAC Chief Engineer (CHENG) and Assistant Commander for Design and Construction. The CHENG is the senior technical advisor for the Command and the final technical authority with respect to all science and engineering technical matters for all of the NAVFAC technical domains, reporting directly to the Commander, Naval Facilities Engineering Systems Command is this capacity.

- **Echelon III - LANT and PAC Design and Construction Business Line (DCBL) Director.** The Design and Construction Business Line Director at LANT and PAC are dual-hatted as the Directors of Design and Construction, reporting to OPS, and the Echelon III Chief Engineers. In the latter capacity they serve as forward deployed members of the Chief Engineer's Office overseeing technical authority and Technical Warrant Holders (TWHs) to provide expert engineering consultation within their Area of Responsibilities (AOR). The Echelon III Chief Engineer reports directly to the Echelon III Commander in this capacity.
- **Echelon III - EXWC Design and Construction Business Line (DCBL) Director.** The Design and Construction Business Line Director at EXWC is triple-hatted as the Director of the Shore Facilities Program, the EXWC Chief Engineer and the Director of Design and Construction. As Chief Engineer, the DCBL Director reports directly to the Commander, EXWC.
- **Echelon IV Design and Construction Business Line (DCBL) Director**. The Design and Construction Business Line Directors at Echelon IV are dual-hatted as the Echelon IV Chief Engineers, serving as the Authority Having Jurisdiction (AHJ) for facilities within their AOR and providing expert engineering consultation and ensuring compliance with standards within their AOR, and as the Directors of Design and Construction. The Echelon IV DCBL organizational reports to the Echelon IV Operations Officer, but while exercising Chief Engineer duties reports directly to the Echelon IV Commanding Officer. DCBL Directors provide the technical and business expertise that supports the Command's delivery of our Products & Services to NAVFAC's Supported Commanders in support of mission requirements. They provide leadership continuity across the Business Line focused on Mission Risk, Process Innovation, Facilities Expertise and Tools & Resources. They are focused on mission capability; ensuring people possess the technical expertise and business acumen essential for mission success. They ensure technical authorities, policies, processes, and resources are in place to execute the mission now and in the future.

B. Primary communities within DCBL: DCBL contains four technical communities: Project Management, Design and Engineering, Construction, and Management and Program Analysis. All engineering and architecture positions begin as Associates up to the GS-12 level where professional registration is strongly encouraged and required for many positions.

a. Design
   - Architecture
   - Landscape Architecture
   - Interior Design
   - Civil Engineering
   - Structural Engineering

- Geotechnical Engineering
- Mechanical Engineering
- Electrical Engineering
- Cost, Schedule Risk Engineering, including Cost Estimators
- Fire Protection Engineering

b. Construction
- Construction Engineering
- Construction Management
- Engineering Technician

c. Project and Program Management
- Project Management
- Program Management

d. Program Analysis
- Program Analyst
- Management Analyst

C. Design and Engineering

- Provide design and engineering pre- and post-award services.
- Develop design and engineering competency by executing a healthy volume of project workload by In-House Design-Bid-Build (IH DBB) strategy.
- Manage design resources (RAP, Design-In-Place [DIP], MCON/M2A/REIM fund sources, Business Operations Plan)
- Interpret and apply Building Codes and Standards, United Facilities Criteria (UFC), and United Facilities Guide Specifications (UFGS) requirements. Improve criteria is senior level positions.
- Evaluate and utilize design-engineering hardware and software
- Provide design policy and guidance for MILCON and Sustainment, Restoration and Modernization (SRM) work.
- Prepare construction contract solicitation packages.
- Prepare Statement of AE Services (SAES) and Independent Government Estimate (IGE) for Architectural-Engineering (AE) firms to deliver construction contract solicitation packages.
- Provide preliminary DD-1391 documentation design support to include cost engineering.
- Support Post Construction Award Services (PCAS) and Post Award Design Services (PADS).
- Provide architecture and engineering services oversight.

- Provide specialized technical services (surveys, inspections, consultation, studies and other technical program oversight).
- Serve as Contracting Officer Representative (COR) on design contracts.
- Conduct Design Assist Visits at field offices.

D. Construction

- Provide construction oversight of projects to ensure compliance with plans and specifications and assure quality and safety
- Provide command long-range and strategic organizational planning
- Manage construction resources (RAP, Work-In-Place [WIP], Construction Contacting Cell staffing algorithm, SIOH/M2A/M3A/M3B/REIM fund sources, Business Operations Plan)
- Establish and comply with construction processes, especially post-award (COR, Construction Quality Management [CQM], Schedule, Safety, DD-1354, Performance Evaluations, Requests for Information [RFIs], Submittals, etc.) aligned with laws and regulations
- Deliver construction Information Technology (IT) and training solutions (Electronic Construction Management System [eCMS], Scheduling software, etc.)
- Liaise with the construction industry
- Conduct Construction Assist Visits at field offices

E. Project and Program Management

a. Project Management

- Provide DC Project Management (PM) for MILCON and large Special Projects.
- Provide cradle to grave life cycle project management delivering projects (scope & quality), on-time, and within budget.
- Provide project life-cycle Cost-Schedule-Risk management.

b. Program Management

- Provide Military Construction (MILCON) Program Management and oversight of other centrally managed programs.
- Provide Program Management of Navy and USMC MILCON programs (including ERCIP) from project development, budget development and preliminary design, to design and construction of world-wide facilities to meet warfighter mission requirements.
- Provide MILCON program management for Military Service and Defense Agency supported commander projects where NAVFAC is the designated DoD Construction Agent.

F. Management and Program Analysis

- Serve as analysts and advisors to management on the evaluation and effectiveness of programs and operations, as well as the efficiency and productivity of DC business line functions.
- Manage financial execution for DC projects, programs and/or budgets.
- DCBL Analysts, along with Contracts and Financial Management Support Lines, align received funding to the correct financial system and ensure in-house labor and contract costs are appropriately obligated.
- Formulate and track budget to include Resource Allocation Plan (RAP), Expenditures, Overhead controls, Charging Profiles, Billet Mapping, and Financial Information Pointer (FIP) management.

IV. Workforce Progression Detail

Career progression detail is provided for each Occupational Series within each Functional Area.

A. Design and Construction Business Line (DCBL) Director.

There are multiple career paths to the Design and Construction Business Line Director position. The position is classified as a GS-0801/0808 series. Successful leaders acquire proficiencies and capabilities across job series, Business Lines, echelons, and overseas assignments that will prepare them for diverse challenges in the DCBL. Experience gained at other agencies and the private sector similar to NAVFAC's product/service delivery is also valued. The following NAVFAC positions, DON Functional Communities, and DAWDA career fields provide broad-based experience needed to prepare individuals for a DCBL Director position. This list is not intended to be all-inclusive and should be used as a guide. There are other means to gain the requisite experience and training.

- **Preparatory Positions**
  - Business Line Directors (at all NAVFAC Echelons)
  - Product Line Directors
  - MILCON Directorate
  - Medical Facilities Program Office (MFPO) Directorate

- **Typical DAWIA Career Fields**
  - Facilities Engineering
  - Engineering
  - Program Management

Design and Construction Business Line Director
Workforce Progression Detail
Balanced Development: Experiential Assignments, Self-directed, and Social Learning

SES, SL, ST	
Technical Competencies	DC.1. Being expertly competent in OPM Executive Core Competencies as defined by OPM – Leading People, Leading Change, Results Driven, Business Acumen, and Building Coalitions. Details are located at: https://www.opm.gov/policy-data-oversight/senior-executive-service/executive-core-qualifications/ DC.2. Ability to lead and integrate Design and Construction into other DoD Construction programs and to build relationships between NAVFAC, USACE, AFCEC, OPNAV, USMC, ASN, OSD, and other Defense Agencies DC.3. Ability to plan, design, and manage construction of Navy projects DC.4. Ability to resolve complex technical issues involving multiple engineering disciplines across multiple stakeholders DC.5. Ability to lead and manage any of the NAVFAC technical products and services (such as those provided by Public Works, Environmental, and Asset Management) DC.6. Ability to fully understand the Navy's programs, its structure, mission and functions, including operations. DC.7. Ability to lead and manage financial resources related to the Military Construction Program, CNIC and MCICOM Design and Construction Reimbursable resources DC.8. Ensures SYSCOM strategic goals, policies and practices align with Department of the Navy (DON) guidance, objectives, and vision DC.9. Exhibits the utmost in Character qualities

Competency Source A: Education	• Bachelor of Science in Engineering Discipline or Architecture from an ABET or NAAB accredited university (DC.2, DC.3, DC.4) • Masters of Science in Engineering or Architecture is preferred (DC.2, DC.3., DC.4) • Master of Business Administration or Engineering Administration is preferred (DC.1, DC.7)
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Significant experience in Facility Design, Facility Construction, and Project Management including in-house design. (DC.2, DC.3, DC.4) • Experience as a Design Director, Construction Director, Echelon III DC Business Line Director, or Echelon II Business Line Director • Lead major teams within NAVFAC and with outside stakeholders (DC.1) • Lead major change initiatives for the Navy (DC.1) • Manage Financial resources within the NAVFAC organization and understanding the POM and PPBES (DC.1) • Manage Human resources to supervise, manage community develop plans and performance management (DC.1) • Manage IT resources to further advance the performance and cyber security of the Command (DC.1) • Use skills to get measurable results from metrics and measures of performance (DC.1.) • Develop strong relationships with those stakeholders within and outside the Command at all levels (DC.1) • Rotations through OPNAV N4 and N9, ASN (EI&E and RD&A), and USACE
Competency Source C: Training	• Training in A/E Contracting, Construction Contracting, Basic Environmental Law, MILCON programming, DAWIA requirements, and other courses required in the continuum (DC.5, DC.6, DC.7) • The ECQs describe the leadership skills needed to succeed in the Senior Executive Service. To assess the executive experience of each candidate, applicants who are applying for their initial career appointment in the SES must demonstrate, with specific examples, how their experience is relevant to exercising leadership in each of the five ECQ competencies • ADV PWD Management Course (CECOS) • Navy Senior Leader Seminar (NSLS) • Leadership for a Democratic Society (FEI) • Bridging the Gap (See Section III) • Monthly Character training (DC.9)

Competency Source D: Reading	• Facilities Projects Manual OPNAVINST 11010.20H (DC.3, DC.7) • Capital Improvements Project Management Manual (DC.3, DC.7) • *International Building Code* (IBC 2018) (DC.2, DC.3, DC.4) • *Whole Building Design Guide (*NIBS website) (DC.1) • *Seven Habits of Highly Effective People* by Steven Covey (DC.1) • *Turn the Ship Around*, David Marquet (DC.1.) • *Balanced Scorecard*, Robert Kaplan and David Norton (DC.1.) • *Team of Teams,* Stanley McChrystal (DC.1) • *The Speed of Trust*, Steven M. R. Covey (DC.1) • *360 Degree Leader*, John C. Maxwell (DC.1) • *Leadership on the Line,* Ron Heifetz and Martin Linsky (DC.1) • *Theodore Roosevelt on Leadership*, John Strock (DC. 1) • *The Wright Brothers,* David McCullough (DC.1) • *Johnstown Flood,* David McCullough (DC.1)
Competency Source E: Industry Participation	• Write professional articles, speak at events, and attend developmental sessions with the American Consulting Engineers Council (DC.2) • Write professional articles, speak at events, and attend developmental sessions with the National Society of Professional Engineers (DC.2) • Write professional articles, speak at events, and attend developmental sessions with the Association of General Contractors (DC.2) • Write professional articles, speak at events, and attend developmental sessions with the Society of American Military Engineers (DC.2)
Competency Assessment: Credentials	• Current Registration as Professional Engineer (PE) or Registered Architect (RA) • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points

Design and Construction Business Line Director
Workforce Progression Detail
Balanced Development: Experiential Assignments, Self-directed, and Social Learning

Expert: Lead Organizations/Programs GS15	
Technical Competencies	DC.1. Ability to lead and manage ALL DCBL Products and Services DC.2. Recognized by the Component Command as the Chief Engineer and Technical Authority as delegated by the Echelon II CHENG DC.3. Ability to plan, design, and manage construction of Navy projects DC.4. Ability to resolve complex technical issues involving multiple engineering disciplines across multiple stakeholders DC.5. Expertise in NAVFAC's Resource Allocation Processes (RAP) and development/analysis of workload projections DC.6. A working knowledge and understanding of the competencies listed in all DC Career Paths DC.7. Must embrace the Navy's Core Values and have a clear understanding and working knowledge of the DON Mission and Organizational Structure DC.8. Full competency to act as the Commands Representative and/or Liaison with other DOD agencies, non-DOD agencies, and industry DC.9. Working knowledge of the Joint Service Perspective DC.10. Full competency in facilitation and mediation and conflict resolution DC.11. Full competency in business integration DC.12. Full competency in developing and delivering briefings at all appropriate and necessary levels DC.13. Excellent Oral and Written Communication skills DC.14. Excellent Problem Solving skills DC.15. Excellent Interpersonal Skills DC.16. Excellent team and team building skills DC.17. Recognized by the Command as the expert in: Situational Leadership, Managing Diverse Workforce; Coaching/Counseling; Conflict Management; and Change Management

	DC.18. Possess the ability of Innovative Thinking DC.19. Recognized by the Command as an expert in accomplishing the Command's Strategic Vision DC.20. Recognized by the Command as having ability in integrating professionals from diverse engineering fields with issues using problem solving and management techniques DC.21. Expertise in the ability to visualize and conceive complex engineering procedure for the solution of complex engineering processes DC.22. Expertise in the ability to interrelate with people from diverse engineering fields, create partnerships, and maximize talents for the good of the project, the supported command and the Navy DC.23. Recognized by the Command as an expert and high level of skill in organizing and providing briefings on highly complex, one-of-a-kind, issues to higher authority and subordinates. DC.24. Strong ability to evaluate diverse complex unique circumstances and alternatives and make effective decisions under uncertainty DC.25. High level skills in collaboration with CI and OPS leadership, practitioners and subject matter experts (SME) on consistent delivery of professional services. DC.26. Recognized by the Command as an expert in results oriented Community Management DC.27. Expertise in career path development DC.28. Expertise in leadership and management of NAVFAC Capital Improvements products and services. DC.29. Expertise in managing teams, budgets, and metrics DC.30. Expertise in achieving execution goals in balance with engineering integrity DC.31. To exhibit the utmost in Character qualities
Competency Source A: Education	• Bachelor of Science in Engineering Discipline or Architecture from an ABET or NAAB accredited university • Masters of Science in Engineering or Architecture is preferred (DC.2, DC.3, DC.4) • Master of Business Administration or Engineering Administration is preferred (DC.1, DC.5, DC.11)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Experience in Facility Design, Construction, and Project Management with projects of varying complexity. • Experience in various levels of the Command – PMEB, ROICC, Echelon IV Core • Experience in other BLs, SLs, or OPS • Oversee and lead multiple cross-functional teams to better understand all NAVFAC products and services to support future requirements • Assignments of increasing/varied responsibility to broaden experience, strengthen contributions to the organization, and maximize professional development and competitiveness for future assignments
Competency Source C: Training	• Training in A/E Contracting, Construction Contracting, Basic Environmental Law, MILCON programming, DAWIA requirements, and other courses required in the continuum (DC.3, DC.4, DC.5) • ADV PWD Management Course (CECOS) • Navy Senior Leader Seminar (CECOS) • Leadership for a Democratic Society (FEI) • Monthly Character training (DC.18)
Competency Source D: Reading	• Facilities Projects Manual OPNAVINST 11010.20H (DC.1, DC14) • Capital Improvements Project Management Manual (DC.1, DC.3, DC.4, DC14) • *International Building Code* (IBC 2018) (DC.2, DC.3, DC.4) • *Whole Building Design Guide (*NIBS website) (DC.1) • *Seven Habits of Highly Effective People* by Steven Covey (DC.1, DC.11) • *Turn the Ship Around*, David Marquet (DC.1, DC.11) • *Balanced Scorecard*, Robert Kaplan and David Norton (DC.1, DC.11) • *Team of Teams,* Stanley McChrystal (DC.1, DC.11) • *The Speed of Trust*, Steven M. R. Covey (DC.1) • *360 Degree Leader*, John C. Maxwell (DC.1, DC.11) • *Good to Great*, Jim Collins (DC.1, DC.11) • *Leadership on the Line,* Ron Heifetz and Martin Linsky (DC.1, DC.11) • *The Outward Mindset: How to Change Lives and Transform Organizations*, The Arbinger Institute (DC.1, DC.11)

Competency Source E: Industry Participation	• Write professional articles and attend developmental sessions with the American Consulting Engineers Council (DC.2) • Write professional articles and attend developmental sessions with the National Society of Professional Engineers (DC.2) • Write professional articles and attend developmental sessions with the Association of General Contractors (DC.2) • Write professional articles and attend developmental sessions with the Society of American Military Engineers (DC.2)
Competency Assessment: Credentials	• Registration as Professional Engineer (PE) or Registered Architect (RA) • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points

B. Design and Engineering

I. Community Description:

Naval Facilities Engineering Systems Command (NAVFAC) executes diverse projects around the globe in support of the warfighter. Project execution and mission accomplishment depend upon highly qualified project technical teams, led and managed by highly competent Designers* while serving in design management roles. The Design Manager (DM)** term is used to describe the role of the lead designer on a project responsible for management of the Project Technical Team including and, if applicable, management of the Architect-Engineer (AE) Contract. The Project Technical Team is comprised of NAVFAC DCBL architects and engineers (from all disciplines) who develop the design documents for the project, and includes the following job series classifications:

- 0801 – General Engineer
- 0802 – Engineering Technician
- 0804 – Fire Protection Engineer
- 0807 – Landscape Architect
- 0808 – Architect
- 0810 – Civil Engineer (includes Structural, Geotechnical & Pavement Engineers)
- 0830 – Mechanical Engineer
- 0850 – Electrical Engineer
- 0899 – Student Trainee
- 1008 – Interior Designer

NOTE (*): NAVFAC DCBL architects and engineers in the job series classifications listed above are serving in design positions developing design documents for DCBL projects. Therefore, this DCBL CMP refers to all architects and engineers in these job series classifications generically as “Designers”.

NOTE (**): In prior versions of the NAVFAC Capital Improvement’s Community Management Plan (CMP) the terms ‘Designer’ and ‘Design Manager’ were used interchangeably. Unfortunately, this led to misinterpretation of the intent and in some instances to the creation of a specific Design Manager position, whose duties included only management and oversight of AE design activities. Consistent In-House (IH) design is the hallmark of developing and sustaining critical design competencies at all levels of a Designer’s career as outlined in NAVFAC Instruction 11000.1, Design Engineering Competency. It was never the intent to have separate positions within our organization for Design Management. Design Management is a function performed by a Designer to varying degrees depending on their level of experience. For this reason, this version of the DCBL

CMP has removed references to the term Design Manager and focuses on ensuring Designers at all career levels, and within all disciplines, are executing in-house design work.

Design competency is accomplished via implementation of a Designer's technical knowledge through job experience, training, education, and professional licensing. Primarily in NAVFAC DCBL "Design & Engineering" that competency is achieved through the execution of In-house Design Bid Build projects.

II. Community Competency

Design Competency is aligned within the Chief Engineer (CHENG) Community Management Plan through reference to the NAVFAC Engineering and Architecture Community Management Framework (E&A CMF).

The DCBL CMP subdivides the Designer's career progression into three levels as described in the E&A CMF. The correlation between the GS levels and associated roles is based on factors such as: level of experience, leadership and management responsibilities, communication skills, amount and type of direction received, community management expertise, mentoring experience and engagement, professional registration/licensure/certifications, leadership of design teams and the complexity of the projects designed and managed.

NAVFAC INSTRUCTION 11000.1, Design Engineering Competency, provides policy guidance on developing, growing and sustaining our IH design expertise by executing IH Design-Bid-Build (DBB) projects. The policy establishes the framework, including business rules, for determining the amount of in-house design and other in-house engineering functions. This capability is critical for Designers to be able to develop and maintain the design engineering competencies necessary to deliver Design & Engineering products and services to our Supported Commanders. The policy aligns with the NAVFAC Community Management Framework 70/20/10 Balanced Development approach, which recognizes that approximately 70% of adult learning occurs on-the-job, an estimated 20% of learning is from others, while the smallest amount of adult learning, roughly 10%, occurs through formal training.

Design engineering competency is critical to the Designers' success and is gained through experience with IH DBB, which will improve IH Design-Build (DB) requests for proposals (RFPs), management and review of AE designs (DB/DBB), support to construction, engineering consultation, engineering investigations, studies and research. The attainment and sustainment of design experience through IH DBB is critical to:

- developing and growing engineering judgment;

- gaining intimate knowledge of design codes, UFCs/UFGSs and design and design production tools;
- learning discipline specific design practices and coordination requirements with other disciplines;
- staying abreast of technology advancements and change; and
- keeping pace with the ever-present demand for accuracy and professionalism in the delivery of NAVFAC products and services supporting execution goals.

Since Designers are responsible for the coordination and integration of several NAVFAC products and services (P&S), design integration management is a key knowledge area and skill for the Designer.

III. Community Structure: Senior Leadership Positions and Functional Areas

- Echelon II:
    - Design & Engineering Director / Product Line Leader (PLL), GS-0801/0808-15
    - Criteria Director, GS-0801/0808-15 (forward deployed to Echelon III, LANT)
    - Senior Design Support Architect/Engineer, GS-0801/0808-14
    - CADD & Engineering Applications Manager (CEAM), GS-1101-14

- Echelon III:
    - Design & Engineering Director / Product Line Manager (PLM), GS-08XX-14
    - Design Production Director (DPD), GS-08XX-14
    - Supervisory Branch Managers/Technical Discipline Leaders/Managers (TDLs/TDMs), GS-08XX-14
    - Specialized Community of Practice (SCoP) Subject Matter Experts, Landscape Architect/Interior Design SMEs, GS-0807-13/GS-1008-13
    - Criteria Managers, GS-0020/08XX-13/14
    - Design Program Manager/Integrated Design Manager/CADD & Engineering Applications Manager (CEAM), GS-08XX/1101-13
    - Senior Designers, GS-08XX-12/13
    - Chief Cost Engineers, GS-0801/0808-14
    - Regional Economist, GS-0110-14
    - Cost Engineers, GS-0801/0808-12/13

- Echelon IV:
    - Design & Engineering Director / Product Line Coordinator (PLC), GS-0801/0808-14

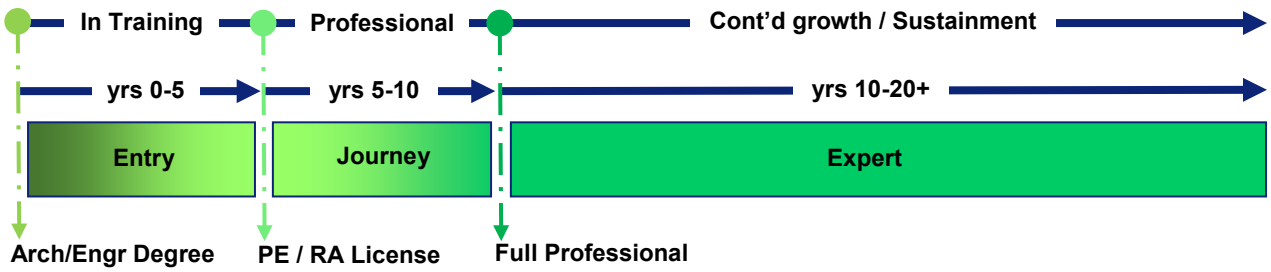
- Design Production Director (DPD)/Quality Assurance Community Management Director (QACMD)/DC Acquisition Readiness Director (CARD)/Quality Assurance Community Management Acquisition Readiness Director (QCARD), GS-0801/0808-14
- Supervisory Branch Managers/Technical Discipline Coordinators (TDCs), GS-0801/0808-14
- Project Management & Engineering Branch (PMEB) Head, GS-0801/0808-13/14
- Technical Discipline Coordinators (TDCs), GS-0801/0808-13
- Supervisory Branch Managers, GS-08XX-13
- Senior Designers, GS-08XX-12/13
- Cost Engineers, GS-0801/0808-12/13

IV. Workforce Progression Detail

For Designers, it is essential for an architect/engineer to have a minimum of both design and construction experience in the first 4-5 years of their professional development. [Note: The terms architect and/or engineer are used generally to address all Designers, and include additional specialized communities (i.e. Landscape Architect. Geotechnical, Interior Design, Pavement, etc.)] Ideally, designers should get a minimum of two years design experience (continual experience is preferred but not mandatory) and one year of construction experience. If a designer cannot achieve one year of construction experience, he/she must obtain a minimum of 9 months construction experience (continual experience is preferred but not mandatory).

To support the development, growth, and sustainment of design engineering competency, a Designer's career has been broken down into three levels based on years of experience.

Design Architect/Engineer's Skill Progression



All architects and engineers are strongly encouraged to obtain their licenses. Professional licensing is mandated for any position, regardless of grade, in responsible charge of engineering/architectural work, whether performed in-house or by contract, including contractual oversight of AE effort. All individuals at the GS-13 level and above in the Designer career path and all supervisors overseeing the work of engineers/architects must be professionally licensed. Unlicensed engineers and architects must receive technical and professional oversight from licensed engineers, and architects.

At the beginning of the Designer's career, extensive time and effort are expended in learning processes, gathering design data, and researching criteria, codes, the Whole Building Design Guide (WBDG) website, and the NAVFAC Design-Build Master (NDBM) website. Technical competencies shall primarily be developed through accomplishment of in-house Design-Bid-Build (DBB) projects as discipline team members on in-house design projects with some involvement on Design-Build (DB) projects. The Entry Level Designer will be required to be a fully participating team member during project meetings with supported

Commands and other design professionals. Visits to project sites where designs are being developed will be included as well as visits to construction jobsites.

The Journey Level Designer has developed all of the professional competencies required of an Entry Level Designer. Journey Level Designers should be professionally licensed as soon as possible after they are eligible for registration as a PE, RA or RLA. Journey Level Interior Designers should be professionally certified/licensed/registered (depending on State) as soon as possible after they are eligible as a CID/LID. Technical competencies should be maintained through accomplishment of in-house DBB projects and DB RFPs. Full competency in the primary discipline plus an understanding, appreciation, and ability to coordinate with other disciplines is mandatory. The Journey Level Designers must be cognizant of, and responsive to NAVFAC execution requirements, while ensuring that principles of design excellence are maintained.

The Expert Level Designer has learned through experience all of the professional competencies required of a Journey Level Designer. Effective leadership, team building and management skills are required. The ability to develop and maintain excellent client relationships is essential. An Expert Level Designer must be cognizant of, and responsive to NAVFAC execution requirements, while ensuring that principles of design excellence are maintained. An Expert Level Designer should be professionally licensed.

An Expert Level Senior Designer has learned through experience all of the professional competencies required of an Expert Level Designer including effective leadership, team building and management skills, as well as the essential ability to develop and maintain excellent client relationships. An Expert Level Senior Designer additional responsibilities also include mentoring Entry and Journey Level Designers and being subject matter experts. A Senior Designer must be professionally registered. The Demographic distribution between Expert Level Senior Designers and the other Designers will be based on need for the expertise and the workload. Therefore, the number of Senior Designers will vary by Component and shall not be more than 50% of the total number (including Entry, Journey and Expert Level) Designers in a Component. Senior Designers often perform project management duties on large SRM projects and by doing so develop invaluable project management expertise.

The Technical Discipline Coordinator (TDC) is a technical expert and in a leadership position at the Echelon IV. The discipline specific TDC is considered the Authority for that discipline at the Echelon IV (e.g. Lead Architect, Lead Civil Engineer, Lead Mechanical Engineer, etc.). At Echelon IVs large enough to have separate discipline branches, the TDC is also the Discipline Branch Head responsible for execution of DC products and services. The TDC has learned through experience all of the professional competencies required of an Expert Level Designer. The TDC will serve as the expert at the Echelon IV and will lead

consistent delivery of the discipline community's professional services. The TDC will be responsible for discipline community management within the Echelon IV in coordination with the Technical Discipline Leader/Manager (TDL/M) and will serve as the discipline lead coordinating the development of discipline professionals in that specific practice area of expertise. The TDC will work with the TDL/M on activities within the discipline community including community management, common business practices, Subject Matter Expert (SME) support and issues of interest. Support for criteria issues assigned by the TDL/M will be provided. The TDC is required to be a PE or RA.

The Technical Discipline Leader/Manager (TDL/M) is a technical expert leadership position with responsibilities at the Echelon II/III level respectively. These individuals are acknowledged discipline experts responsible for bringing the larger discipline community together both professionally and for community management execution. Each Echelon III Command will have a TDM. In most cases, one of the two TDMs will also function as the TDL. The TDM/L at the Echelon III typically functions as the Discipline Branch Head responsible for execution of DC products and services. Full competency in the primary discipline plus an understanding and appreciation of other disciplines is mandatory. The TDL/M demonstrates excellent leadership, team building and communication skills. Collaboration with practitioners and SMEs is an essential aspect of this position, ensuring that all discipline professionals will have the best opportunity to develop and grow. The TDL/M will maintain SME contacts and ensure that all discipline members have access to the full range of professional contacts required to support the design and execution of NAVFAC projects. The TDL/M will analyze and assess the distribution of expertise throughout the Echelon III and IV organizations and ensure that each design organization has the necessary skill set to deliver competent engineering products and services expertise. The TDL/M will work with the Echelon II and III Design and Engineering Product Line Leader/Manager and the Chief Engineer to provide community management and training as required. Analysis and support for technology tools along with criteria support is included in the TDL/M responsibilities. The TDL/M is required to be a PE or RA.

Each of the four (4) large Echelon IVs, i.e. Mid-Atlantic, Southeast, Southwest, and Washington, staff Director positions which work for the Design and Engineering Product Line Coordinator. These Director positions are the Design Production Director (DPD), Quality Assurance Community Management Director (QACMD), Acquisition Readiness Director (CARD), and Quality Assurance Community Management and Acquisition Readiness Director (QCARD). The DPD supervises the disciplines branch heads and TDCs, and is primarily responsible for E-line / N-line P&S execution. The QACMD provides direct Quality Assurance (QA) support, community management, leveraged technical training, design process improvements, and Inspector General (IG) / Design Assist Visit (DAV) efforts. The CARD plans and supports award of Basic Architect-Engineer (AE) contracts and monitors / forecasts capacities, develops DC Acquisition plans and acquisition process

improvements, and compiles the E-line / N-line workload projections for the Resource Allocation Plans (RAP). The QCARD (which is only at FEC Washington) is a joint QACMD/CARD position.

The Design and Engineering Product Line Leader/Manager/Coordinator (PLL/M/C) positions as well as the senior staff positions are leadership and management positions. The position brings together the knowledge and hands-on experience of design with a working knowledge of project and construction management to maximize effectiveness, efficiency and excellence of NAVFAC's products and services. The incumbent is required to be a PE or RA. The PLL/M/C will demonstrate expertise in the following areas, although not necessarily limited to those noted: communications (internal and external); facilitation and mediation; conflict resolution; business integration; briefings at all appropriate and necessary levels; experience with large and complex projects; and mentoring junior and associate-level Designers, CM and PMs.

Design & Engineering - Workforce Progression Detail
Balanced Development:
Experiential Assignments, Self-directed, and Social Learning

The following tables for the Workforce Progression are general in nature. Design and Engineering personnel are highly encouraged to refer to the detailed lists of requirements by specific discipline, position, and level in the "DC Design & Engineering Technical Competencies Tables" section of this DCBL CMP, as well as the NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines (E&A CMF).

Training is defined as instruction designed to provide specific skills and knowledge to attain competence and maintain professional currency. To ensure employees maintain professional currency, meet continuous learning requirements, and develop requisite skills, employees must leverage applicable continuous learning events, NAVFAC specialty courses, NAVFAC Executive Institute (NEI) courses, and, if eligible, Defense Acquisition University (DAU) courses. Additional course information and registration information can be found at the link Total Force Training.

Required knowledge obtained from the training will be a progressive requirement. For example, Entry Level Designers will need basic MS Project skills and other software skills, whereas, Journey Level Designers, will need intermediate to advanced competency in MS Project and other IT Tools required for the design effort to be successful. While the coursework designated in the "DC Design & Engineering Course Outline" section and the NAVFAC E&A CMF are specific to a point, there may be other courses and training that could be required to make an assignment more successful. That coursework should be in keeping with the overall objective of providing the best possible skills on NAVFAC projects. In addition, discipline specific training aligned with career path development is necessary.

Professional certifications/licenses are defined as credentials needed to perform specific job functions. This includes Professional Registration, DAWIA certifications and other specialty certifications/licenses.

Passing the Fundamentals of Engineering (FE) / Engineer-in-Training (EIT) exam is highly desired for engineers coming into the work place or during the first 4 to 5 years onboard. Professional licensing as a Professional Engineer, Registered Architect, Registered Landscape Architect, and Certified/Licensed/Registered Interior Designer is highly desired at the Journey and Expert levels for all assignments. All individuals in Expert Level Senior Designers at the GS-13 or above level and all supervisors overseeing the work of engineers/architects must be professionally licensed.

Experience is gained through a variety of duties and assignments, both project specific and rotational. NAVFAC recognizes and supports opportunities to learn from a variety of

experiences made available through rotational or developmental assignments specifically structured to provide such a broadening experience. Rotational and developmental assignments are encouraged for all workforce members. Experiences at different levels of the organization, with various business lines/support lines, and with other Commands are encouraged.

In the 08XX and 1008 series, lateral and promotional movements between career paths are acceptable and encouraged. Once the competencies at the Entry Level has been achieved, a Designer may choose to move into other areas such as Construction or Project Management. A Designer, CM, or PM would start with smaller, less complex projects and then advance to larger, more complex projects adding supervisory responsibilities.

In addition to rotational and developmental assignments mentioned in the preceding paragraphs at various levels of the organization it should be noted that experiential opportunities are different at each level of the command and can hold significant value to the growth and development of an engineer. For example, Designers within the Project Management and Engineering Branch (PMEB) of the Facility Engineering Acquisition Division (FEAD) of the Public Works Department (PWD) will be engaged in base level projects with a typical value less than $5M (depending on the size of the PWD) and with a focus on sustainment, maintenance and restoration. Designers at this level carry-out both designer and project management responsibilities representing a tremendous opportunity to develop both skill sets in addition to the soft skills required to work directly with clients. Another example is the FEAD Project Management Engineering Branch Head (PMEBH) who carries out design, project, and construction management responsibilities. At a Navy PWD, high performing Designers are well positioned to compete for GS-13 and GS-14 PMEBH positions where they will oversee design, construction and project management operations.

The proficiency scale shown in Table 1 below is an instrument used to measure one's ability to demonstrate a competency on the job. The scale captures a wide range of abilities and organizes them from Level 1 (awareness) to Level 5 (expert). The proficiency scale may be applied against each competency to compare current levels of proficiency against levels required for the various positions within a Career Segment (Entry, Journey, and Expert). While the competencies for positions within a career segment are the same, the proficiency required increases as an individual moves up the career ladder taking on positions with greater responsibility, authority, and grade (Refer to Proficiency Map, Table 2 for senior-level positions). For additional information, refer to the NAVFAC Definitions and Proficiency Scales located in the NAVFAC Community Management Framework.

Proficiency Scale	
1. Awareness	Limited Experience or knowledge is required in this competence
2. Basic	Some knowledge and experience of this competence is required
3. Intermediate	This competence needs to be demonstrated though may only be partially demonstrated and could be performed under supervision
4. Advanced	Full competency is required supported by knowledge and experience
5. Expert	Full competency supported by deep knowledge and broad experience; the individual is likely to be regarded as a thought leader

Table 1. Proficiency Scale

Career Segment Position	Required Proficiency
Senior Designer; Sr. Cost; SME (GS-13)	Advanced/Expert
Design Supervisor (GS-13)	Advanced/Expert
Criteria Manager (GS-14)	Expert
Echelon III/IV Design & TDC, DPD, CARD, QACMD (GS-14)	Advanced/Expert
Echelon II Design Director, SIOP Design Lead (GS-15)	Expert

Table 2 Proficiency Map

IV. Design and Construction, Design and Engineering - Workforce Progression Detail Balanced Development: Experiential Assignments, Self-directed, and Social Learning

B1. Designers:

Entry: Designer GS-5/7/9/11/12	
Technical Competencies	DC4.1. Basic knowledge of discipline design DC4.2. Knowledge of codes, criteria, NDBM, WBDG, and related practice guidance documents including a working knowledge of the processes outlined in BMS DC4.3. Technical competencies shall primarily be developed through discipline team membership on in-house DBB projects DC4.4. Working knowledge and practical experience in preparing and reviewing design deliverables, including basis of design, engineering calculations, drawings, specifications, cost estimates and Request for Proposals (RFP) for Design-Build (DB) projects DC4.5. Knowledge of e-Projects, Electronic Project Generator (EPG), SPECSINTACT, AUTOCAD, DrChecks and other related discipline specific design software DC4.6. Working knowledge and practical experience in design charrette meetings (Functional Analysis and Concept Development (FACD), Concept Design Workshop (CDW) and Project Programming DC4.7. Developed knowledge in Energy Analysis, Life Cycle Cost Analysis and other estimating tools in support of the design process DC4.8. Developed discipline appropriate knowledge of requirements for sustainability (including Third Party Certification), energy efficiency, energy mandates (EPAct 2005/EISA 2007, etc.), and an understanding of reduction of facility total ownership cost DC4.9. Developed knowledge of field investigations, measurements and associated calculations DC4.10. Developed knowledge in construction quality assurance and acceptance tests in support of establishing design intent. DC4.11. Determining in-house level of effort for design and calculating fees (pre- and post-award efforts) DC4.12. Experience in supporting the award and management of AE Services Contracts to include development of SAES, In-House Government Estimate (IGE), and Technical Analysis (TA) in support of the Pre-negotiation Position (PNP).

	DC4.13. Experience in supporting Technical Evaluation Teams (TET) as an advisor. DC4.14. Experience in supporting AE slate/selection/negotiation processes. DC4.15. Practical experience in Supported Command communication and dialog (i.e. scope coordination, 1391 development, etc.) DC4.16. Working knowledge and practical experience with conducting engineering investigations and preparation of engineering studies and reports. • ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements***.
Competency Source A: Education	• A bachelor's degree from an accredited (ABET, NAAB, LAAB or CIDA, respectively) university in Engineering, Architecture, Landscape Architecture, or Interior Design. (DC.1)
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Meet regularly with a Discipline mentor or supervisor to review design concepts and strategies (DC.1 – DC.16) • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for less complex projects (DC.1 – DC.9, DC.15, DC.16) • Review of plans and specifications prepared by an A/E for a complete discipline for less complex projects (DC.12 – DC.14) • Rotational assignments with Construction (DC.10) • ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements***.
Competency Source C: Training	• eProjects 101 (DC.5) • Financial Management Basics • ACQ 101/FE 101 (DC.12 – DC.14) • Design-Build On-Line Training (DC.4) • PROJNET/DrChecks (DC.5) • FEAD Design Projects (DC.1 – DC.16)
Competency Source D: Reading	• CI Project Management Manual (DC.2 – DC.16) • UFC 1-200-01 DoD Building Code (DC.2 – DC.16) • FC 1-300-09N Navy and Marine Corps Design Procedures (DC.2 – DC.16) • International Building Code (IBC) (DC.2 – DC.16)

Competency Source E: Industry Participation	• ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements***.
Competency Assessment: Credentials	• FE/EIT, NCARB AXP • Registration as Professional Engineer (PE) or Registered Architect (RA), Registered Landscape Architect (LRA)/Professional Landscape Architect (PLA), or Certified/Licensed Interior Designer (CID/LID) is preferred at the GS12 level. • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points

Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13)	
Technical Competencies	DC4.17. All Technical Competencies for Entry: Designer GS-5/7/9/11/12. DC4.18. Demonstrated discipline knowledge DC4.19. Established experience in management of design DC4.20. Clear ability to coordinate input and expertise from other disciplines, ensuring a complete and fully developed design product DC4.21. Knowledge and skills to manage and lead project teams DC4.22. Knowledge and experience in successfully coordinating and integrating project related issues with the project team, PM, FEAD/ROICC, AE Designer of Record (DOR), other Business Lines and Customer as necessary DC4.23. Knowledge and skills in performing and leading quality control and quality assurance activities which include discipline review of in-house and AE developed design packages DC4.24. Experience in developing labor estimates and milestone schedules for project requirements DC4.25. Knowledge and skills in producing accurate results with the cost engineer and PM in validating the government estimate (GE), including achieving cost reduction changes to the design, ensuring a complete and usable facility DC4.26. Skilled at coordinating and leading client interface and design charrette, FACD and project programming meetings DC4.27. Knowledge of NAVFAC acquisition delivery vehicles including DBB and DB DC4.28. Knowledge and skills in preparing design deliverables, including basis of design, engineering calculations, drawings, specifications, cost estimates, and RFPs for DB projects DC4.29. Working knowledge of the Facilities Projects Manual, OPNAVINST 11010.20H, the NDBM and the WBDG including a knowledge of the processes outlined in BMS DC4.30. Ability to make effective decisions under uncertain conditions and difficult situations DC4.31. Ability to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields DC4.32. Knowledge of NAVFAC, Supported Commands, Navy Organization and doctrine DC4.33. Knowledge and experience in managing design budgets

	DC4.34. Ability to effectively participate in Technical Evaluation Teams (TET) DC4.35. Practical experience in AE slate/selection/negotiating process DC4.36. Knowledge and skills in successfully coordinating post award design effort including the design schedule with the CM, PM, and AE DOR DC4.37. Knowledge and skills in successfully coordinating with the project team, AE DOR, PM, Environmental, FEAD/ROICC and other team members to obtain project related permits. DC4.38. Established experience acting as a Contracting Officer's Representative (COR) for AE designs and evaluating AE performance. • ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements***.
Competency Source A: Education	• A bachelor's degree from an accredited (ABET, NAAB, LAAB or CIDA, respectively) university in Engineering, Architecture, Landscape Architecture, or Interior Design. (DC.1) • Pursuit of Graduate Studies Preferred
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Meet regularly with a Discipline mentor or supervisor to review design concepts and strategies (DC.17 – DC.37) • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for more complex projects (DC.17 – DC.37) • Review of plans and specifications prepared by an A/E for a complete discipline for more complex projects (DC.22, DC.23, DC.34 – DC.37) • Rotational assignments with Project Management and/or Construction (DC.22, DC.23, DC.36, DC.37) • ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements.***
Competency Source C: Training	• FE 201 (DC.22, DC.27, DC.29 – DC.31, DC.34 – DC.37) • CTC 466 AE Contract Management (DC.22, DC.23, DC.27, DC.34 – DC.37) • CTC 415 Source Selection & TET (DC.27, DC.34, DC.35) • Electronic Project Generator (DC.20, DC.29, DC.32, DC.37) • OPNAVINST 11010.20H (DC.25, DC.29, DC.32) • MCON 101 (DC.20, DC.25, DC.29, DC.32, DC.37) • Supervisor Training (for Supervisors only) • FE 302 (for GS13+)(DC.22, DC.27, DC.29 – DC.31, DC.34 – DC.37)

Competency Source D: Reading	• CI Project Management Manual (DC.17 – DC.37) • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements***.
Competency Assessment: Credentials	• All Professional Certifications required for Entry Level Designer. • Registration as Professional Engineer (PE) or Registered Architect (RA), Registered Landscape Architect (LRA), or Certified/Licensed Interior Designer (CID/LID) is preferred at the GS12 level. • Registration as Professional Engineer (PE) or Registered Architect (RA), Registered Landscape Architect (LRA), or Certified/Licensed Interior Designer (CID/LID) is required at the GS13 level. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points at the GS 12 level. • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points at the GS 13 level.

Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD/ QADC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Design Director - Product Line Leader/Manager/Coordinator (GS14/15)	
Technical Competencies	DC4.39. All competencies for Journey: Designer, Senior Designer, Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM)(GS13) DC4.40. Demonstrated discipline knowledge DC4.41. Established experience and leadership in management of design, from simplistic to highly complex DC4.42. Clear ability to coordinate input and expertise from other disciplines, ensuring a complete and fully developed design product DC4.43. Expertise in managing and leading multi-discipline project teams DC4.44. Expertise in successfully coordinating and integrating project related issues with the project team, PM, FEAD/ROICC, AE Designer of Record (DOR), other Business Lines and Customers as necessary DC4.45. Expertise in performing and leading quality control and quality assurance activities which include discipline review of in-house and AE developed design packages DC4.46. Experience in developing labor estimates and milestone schedules for project requirements DC4.47. Expertise in producing accurate results with the cost engineer and PM in validating the government estimate (GE), including achieving cost reduction changes to the design, ensuring a complete and usable facility DC4.48. Skilled at coordinating and leading client interface and design charrette, FACD and project programming meetings DC4.49. Skilled as a Designer managing IH and AE projects DC4.50. Knowledge of NAVFAC acquisition delivery vehicles including DBB and DB DC4.51. Expertise in preparing design deliverables, including basis of design, engineering calculations, drawings, specifications, cost estimates and RFPs for DB projects DC4.52. Working knowledge of the Facilities Projects Manual, OPNAVINST 11010.20H, the NDBM and the WBDG including a thorough knowledge of the processes outlined in BMS DC4.53. Ability to make effective decisions under uncertain conditions and difficult situations

	DC4.54. Ability to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields DC4.55. Success at chairing and effectively participating in AE slate/selection/negotiations DC4.56. Knowledge of NAVFAC, Supported Commands, Navy Organization and doctrine DC4.57. Expertise in managing design budgets DC4.58. Success at chairing (for professionally licensed Designers) and effectively participating in Technical Evaluation Teams (TET) and drafting TET reports DC4.59. Expertise in successfully coordinating post award design effort including the design schedule with the CM, PM, and AE DOR DC4.60. Expertise in successfully coordinating with the project team, AE DOR, PM, Environmental, FEAD/ROICC and other team members to obtain project related permits DC4.61. (Sr. Designer) Accomplished at mentoring Entry and Journey Level Designers and other potential design professionals to facilitate their success DC4.62. (Sr. Designer) Expertise in a specialty area of the discipline. Functions as the Component Subject Matter Expert (SME) in that specialty DC4.63. Demonstrated understanding of Design-in-Place (DIP) projections and accrual milestones DC4.64. Ability to brief clients and senior leadership • ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements***.
Competency Source A: Education	• A bachelor's degree from an accredited (ABET, NAAB, LAAB or CIDA, respectively) university in Engineering, Architecture, Landscape Architecture, or Interior Design. (DC.1) • Graduate Level Preferred (MS, MBA, etc.) • N/A for Senior Cost Technician
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Mentor discipline regularly or supervise staff to review design concepts and strategies (DC.38 – DC.61) • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for highly complex projects (DC.38 – DC.61) • Review of plans and specifications prepared by an A/E for a complete discipline for highly complex projects (DC.43, DC.44, DC.54, DC.57 – DC.59) • Rotational assignments across Echelon II/III (DC.51, DC.55, DC.60, DC.61) • Rotational assignments with Asset Management BL/ Environmental BL (DC.53, DC.55, DC.58, DC.59)

	• ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements.***
Competency Source C: Training	• Supervisor Training (for Supervisors only) • Presentation Skills (DC.42, DC.47) • Facilitation Skills (DC.42, DC.43, DC.47, DC.53, DC.54, DC.57) • NEI I/II/III (DC.42, DC.43, DC.52, DC.53, DC.54, DC.57) • Navy Senior Leader Seminar (GS15 only)
Competency Source D: Reading	• CI Project Management Manual (DC.38 – DC.61) • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines*** • ***Refer to discipline specific Technical Competencies tables (later in this section) for discipline, position and level specific requirements***. • NEI IV Capitol Hill Workshop
Competency Assessment: Credentials	• Registration as Professional Engineer (PE) or Registered Architect (RA), Registered Landscape Architect (LRA), or Certified/Licensed Interior Designer (CID/LID) is required at the GS13 level & above. • Senior Cost Technician at the GS13 level requires certification as CCET, CCC, CCE, AACE, PCEA or CVS • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points at the GS 13 level and above.

B2. Architectural Designers:

Entry: Architect GS-5/7/9/11/12	
Technical Competencies	DC41.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC41.2. Basic knowledge of architectural design DC41.3. Basic knowledge of Department of Defense Unified Facilities Criteria (UFC) and model building codes related to architecture DC41.4. Basic knowledge of material standards used in architecture (i.e. exterior walls, roofing, interior walls, etc.) DC41.5. Basic Knowledge of architectural software applications DC41.6. Design competencies are primarily developed through discipline team membership on In House Design Bid Build (IH DBB) projects. DC41.7. Effective cross discipline design coordination skills
Competency Source A: Education	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Support preparation of Design-Build RFP (In-house Design-Build) for a complete discipline • Provide Post-Award Contract Services (PCAS), including RFIs, construction submittals, technical acceptance of critical systems, etc. • Complete design rotational assignments at PWD design office and at Echelon IV Core design office • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development
Competency Source C: Training	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • CADD Community On-Line Training • Architectural Design • Environmental Systems • History of Architecture • Building Science and Technology

Competency Source D: Reading	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • NAVFAC Capital Improvements Business Management System (BMS) • UFC 3-101-01 Architecture • UFC 3-110-03 Roofing • UFC 1-200-02 High Performance & Sustainable Building Requirements • UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings • NFPA 101 Life Safety Code • Architectural Barriers Act (ABA) Standards
Competency Source E: Industry Participation	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Young Architects forums • American Institute of Architects (AIA) • National Council of Architecture Registration Boards (NCARB)
Competency Assessment: Credentials	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Assessment.

Journey: Architect (GS12), Senior Architect (GS13), Architectural Branch Managers/Supervisors (GS13)	
Technical Competencies	DC41.8. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC41.9. All Technical Competencies for Entry: Architect GS-5/7/9/11/12. DC41.10. Demonstrated knowledge in the application of basic architectural theory and application to buildings. DC41.11. Demonstrated knowledge of architectural criteria and standards, and experience in the application of DoD specific requirements. DC41.12. Demonstrated knowledge of specific architectural software. DC41.13. Experience with oversight of AE DBB architectural design DC41.14. Developing knowledge of complex architectural requirements, such as air barriers, acceptance testing, and sustainability. DC41.15. Knowledge of related discipline criteria including structural engineering, civil engineering, mechanical and plumbing, and fire protection. DC41.16. Knowledge of cross discipline tools, such as CPARS and QA/QC Plans and Checklists DC41.17. Experience and knowledge in supervision of design professionals, including workload management, executing personnel actions, addressing performance issues, and preparing performance reviews. DC41.18. Working knowledge of NAVFAC programs and policies related to HR, supervision, training, and safety. DC41.19. Experience and knowledge in communicating NAVFAC requirements and effectively managing team compliance. DC41.20. Knowledge and experience as designer and design manager successfully coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA and NAVAIR. DC41.21. Expertise in managing design budgets. DC41.22. Demonstrated project experience with all NAVFAC acquisition execution methods including IH and AE DB and DBB. DC41.23. Demonstrated ability to make effective decisions under uncertain conditions and difficult situations, to interrelate professionals and issues with associated problem solving

	and management techniques from diverse engineering fields, to resolve complex issues.
Competency Source A: Education	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Education for Entry: Architect GS5/7/9/11/12.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Experiences for Entry: Architect GS-5/7/9/11/12. • Prepare Design-Build RFP (In-house Design-Build) for a complete discipline • Provide Post-Award Contract Services (PCAS), including RFIs, construction submittals, technical acceptance of critical systems, etc. • Serves as Design Manager for multi-discipline projects of increasing complexity. • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Training for Entry: Architect GS-5/7/9/11/12.
Competency Source D: Reading	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Reading for Entry: Architect GS-5/7/9/11/12. • Technical Journals as recommended by the TDL

Competency Source E: Industry Participation	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Industry Participation for Entry: Architect GS-5/7/9/11/12.
Competency Assessment: Credentials	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Assessment. • All Required Competency Assessments for Entry: Architect GS-5/7/9/11/12. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points

Expert: Senior Architect (GS13), Architectural Technical Discipline Leader/Manager/Coordinator (GS14), Architectural Criteria Managers and Subject Matter Experts (GS13/14)	
Technical Competencies	DC41.24. Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD)(GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies. DC41.25. All Technical Competencies for Journey: Architect (GS12), Senior Architect (GS13), Architectural Branch Managers/Supervisors (GS13). DC41.26. Recognized expertise in the application of complex architectural requirements. Functions as the Component Subject Matter Expert (SME) in area of complex design designer of record, performing analysis and design and managing architectural design requirement. DC41.27. Accomplished at mentoring less experienced designers. DC41.28. Demonstrated ability to anticipate, and coordinate multi-discipline design requirements and to incorporate in architectural design for complex buildings. DC41.29. Working knowledge of requirements of other DoD and DoN Commands such as NAVSEA and NAVAIR. DC41.30. Knowledge of NAVFAC, supported commands, Navy organization and doctrine. DC41.31. Knowledge and experience in mitigating business line risk. Implements risk management practices into community of practice management.
Competency Source A: Education	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Education for Journey: Architect (GS12), Senior Architect (GS13), Architectural Branch Managers/Supervisors (GS13).

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Experiences for Journey: Architect (GS12), Senior Architect (GS13), Architectural Branch Managers/Supervisors (GS13). • Meet regularly with design teams to provide oversight and direction for successful project completion. • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for multiple complex buildings. • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Training for Journey: Architect (GS12), Senior Architect (GS13), Architectural Branch Managers/Supervisors (GS13).
Competency Source D: Reading	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Reading for Journey: Architect (GS12), Senior Architect (GS13), Architectural Branch Managers/Supervisors (GS13). • Technical Journals as recommended by the TDL

Competency Source E: Industry Participation	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD)(GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Industry Participation for Journey: Architect (GS12), Senior Architect (GS13), Architectural Branch Managers/Supervisors (GS13).
Competency Assessment: Credentials	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Assessment. • All Required Competency Assessments for Journey: Architect (GS12), Senior Architect (GS13), Architectural Branch Managers/Supervisors (GS13). • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

B3. Structural Designers:

Entry: Structural Engineer GS-5/7/9/11/12	
Technical Competencies	DC42.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC42.2. Basic knowledge of structural engineering analysis and design. DC42.3. Basic knowledge of Department of Defense Unified Facilities Criteria (UFC) and model building codes related to structural engineering DC42.4. Basic knowledge of material standards used in structural engineering (i.e. steel, concrete, timber) DC42.5. Basic Knowledge of structural engineering software applications DC42.6. Design engineer competencies shall primarily be developed through discipline team membership on In House Design Bid Build (IH DBB) projects.
Competency Source A: Education	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • A bachelor's degree in Civil Engineering from an ABET accredited university. Focus on structural engineering, as demonstrated through completion of relevant discipline specific coursework is preferred.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Complete analyses and designs, and prepare construction documents including drawings and specifications for structural elements of buildings and waterfront structures, and for other small structures such as retaining walls (In-house Design Bid Build) • Complete design rotational assignments at PWD design office and at Echelon IV Core design office • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development

Competency Source C: Training	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Coursework and other training will focus on development and application of fundamental concepts introduced at the college level, including: Reinforced Concrete Design Structural Steel Design Reinforced Concrete Masonry Design Timber Design Blast Design – ATFP Analysis and design requirements for Seismic and Wind Loading Application of building code and material standards requirements including: UFC 1-200-01, UFC 3-301-01, UFC 4-010-01, IBC, ASCE 7, ASCE 24, AISC 360, ACI 301, and ACI 318 • Application of structural analysis and design tools including RISA, Enercalc, SAP, SBEDS, AutoCAD, and REVIT • Introduction and basic development of engineering concepts as applied to DoD facilities, including: • Blast Design • ATFP • Fall Protection
Competency Source D: Reading	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Reading material will focus on the development of fundamental structural engineering capabilities as well as career development within NAVFAC, and will include: • UFC 3-301-01, UFC 1-200-01, UFC 4-010-01, IBC, ASCE 7, ASCE 24, AISC 360, ACI 301, ACI 318, and the NAVFAC Design and Construction Business Line Community Management Plan
Competency Source E: Industry Participation	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • National Council of Structural Engineers Associations (NCSEA) • American Institute of Steel Construction (AISC) • American Concrete Institute (ACI)
Competency Assessment: Credentials	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Assessment. • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points

Journey: Structural Engineer (GS12), Senior Structural Engineer (GS13), Structural Branch Managers/Supervisors (GS13)	
Technical Competencies	DC42.7. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC42.8. All Technical Competencies for Entry: Structural Engineer GS5/7/9/11/12. DC42.9. Demonstrated knowledge in the application of basic structural engineering theory and application to buildings and waterfront structures, including basic framing systems and load path analysis for typical gravity and lateral loads. DC42.10. Demonstrated knowledge of structural engineering criteria and standards, and experience in the application of DoD specific requirements such as AT/FP and fall protection. DC42.11. Demonstrated knowledge of specific structural software. DC42.12. Experience with oversight of AE DBB structural engineering design DC42.13. Developing knowledge of complex structural engineering requirements such as wind and seismic design, progressive collapse mitigation, blast design, and seismic evaluation of existing buildings. DC42.14. Knowledge of related discipline criteria including architecture, civil engineering, mechanical and plumbing, and fire protection. DC42.15. Effective cross discipline design coordination skills DC42.16. Experience and knowledge in supervision of design professionals, including workload management, executing personnel actions, addressing performance issues, and preparing performance reviews. DC42.17. Working knowledge of NAVFAC programs and policies related to HR, supervision, training, and safety. DC42.18. Experience and knowledge in communicating NAVFAC requirements and effectively managing team compliance.
Competency Source A: Education	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Education for Entry: Structural Engineer GS-5/7/9/11/12. • Continued coursework towards completion of advanced degree in engineering or related field. • Master's Degree in Structural Engineering

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Experiences for Entry: Structural Engineer GS-5/7/9/11/12. • Serves as Design Manager for multi-discipline projects of increasing complexity. • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level structural designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Training for Entry: Structural Engineer GS-5/7/9/11/12. • Coursework and other training in advanced structural material design, including: Precast / Prestressed, and Post Tensioned Concrete design, structural steel plate girder design, design of structural steel seismic lateral force resisting systems, structural cold formed steel design, and advanced timber structures design • Coursework and other training in advanced analyses including Structural Dynamics, Finite Element Analysis, Non-Linear Structural Analysis, Plate Theory, and Structural Reliability. • Coursework and other training in advanced criteria requirements, including: Blast Design, Progressive Collapse, Seismic Retrofit of Existing Structures, Design for Risk Category V Structures, and Design for Flood and Tsunami • Coursework and other training in specialized fields related to structural engineering, including: Port Engineering, Coastal Engineering, Design of Waterfront Structures, Dredging, Design of Specialty Foundations, High Towers, Bridges, Design to Accommodate Weight Handling Equipment, Bridge Design, Inspection and Rating, Security Planning, and Contingency Engineering and Damage Assessment • Coursework and other training in Design Management and Project Management related requirements, including: Design Project Estimating, Contract Task Order Development (SAES), Negotiation, Budgeting, Time Management, and Communications Skills

Competency Source D: Reading	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Reading for Entry: Structural Engineer GS-5/7/9/11/12. • Reading to enhance general awareness and appreciation of structural engineering, including: "Engineers of Dreams: Great Bridge Builders and the Spanning of America" – Henry Petroski, "The Great Bridge: The Epic Story of the Building of the Brooklyn Bridge" – David McCullough, "The Path Between the Seas: The Creation of the Panama Canal, 1870-1914" – David McCullough, "Chief Engineer: Life of a Nation Builder, Sanford Fleming" – Lorne Green • Criteria related to advanced or specialized requirements, including: Design of RC V Structures (UFC 3-301-02), DoD Security Engineering Facilities Planning Manual (UFC 4-020-01), Design to Resist Progressive Collapse (UFC 4-023-03), Design: Moorings (UFC 4-159-03), ACI 41-17, and RP-8 • Facility specific criteria, including: Piers and Wharves (UFC 4-152-01), Graving Dry Docks (UFC 4-213-10), Fire Stations (UFC 4-730-10), and Aircraft Maintenance Hangars (UFC 4-211-01) • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Industry Participation for Entry: Structural Engineer GS-5/7/9/11/12. • Increased participation in ASCE through attendance at industry forums such as the ASCE PORTS Conference. • National Society of Professional Engineers
Competency Assessment: Credentials	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Assessment. • All Required Competency Assessments for Entry: Structural Engineer GS-5/7/9/11/12. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points

Expert: Senior Structural Engineer (GS13), Structural Technical Discipline Leader/Manager/Coordinator (GS14), Structural Criteria Managers and Subject Matter Experts (GS13/14)	
Technical Competencies	DC42.19. Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies. DC42.20. All Technical Competencies for Journey: Structural Engineer (GS12), Senior Structural Engineer (GS13), Structural Branch Managers/Supervisors (GS13). DC42.21. Recognized expertise in the application of complex structural engineering requirements such as wind and seismic design, progressive collapse mitigation, seismic investigations of existing buildings, and design of complex foundation systems. Functions as the Component Subject Matter Expert (SME) in area of complex design designer of record, performing analysis and design and managing structural design requirement. DC42.22. Accomplished at mentoring less experienced engineers and designers. DC42.23. Demonstrated ability to anticipate, and coordinate multi-discipline design requirements and to incorporate in structural design for complex building and waterfront structures. DC42.24. Working knowledge of requirements of other DoD and DoN Commands such as NAVSEA, NOSSA, and the DDESB. DC42.25. Knowledge and experience as designer and design manager successfully coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA, NOSSA, and DDESB. DC42.26. Expertise in managing design budgets. DC42.27. Demonstrated project experience with all NAVFAC acquisition execution methods including IH and AE DB and DBB. DC42.28. Demonstrated ability to make effective decisions under uncertain conditions and difficult situations, to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields, to resolve complex issues. DC42.29. Knowledge of NAVFAC, supported commands, Navy organization and doctrine. DC42.30. Knowledge and experience in mitigating business line

	risk. Implements risk management practices into community of practice management.
Competency Source A: Education	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Education for Journey: Structural Engineer (GS12), Senior Structural Engineer (GS13), Structural Branch Managers/Supervisors (GS13).
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Experiences for Journey: Structural Engineer (GS12), Senior Structural Engineer (GS13), Structural Branch Managers/Supervisors (GS13). • Meet regularly with design teams to provide oversight and direction for successful project completion. • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for multiple complex buildings such as communications facilities or buildings in areas of high seismicity. • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level structural designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD)(GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Training for Journey: Structural Engineer (GS12), Senior Structural Engineer (GS13), Structural Branch Managers/Supervisors (GS13). • Additional coursework and other training in advanced structural specialty fields including: Tall Tower Design, Dry Dock Engineering, Blast Analysis and Design, and Fall Protection • Cross Discipline Training, including: Life Safety, Geotechnical, and MEP Criteria • Coursework and other training in non-technical “soft skills”,

	including: Leadership Development, Time Management, Conflict Resolution, Team Building and Motivation, and Public Speaking
Competency Source D: Reading	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Reading for Journey: Structural Engineer (GS12), Senior Structural Engineer (GS13), Structural Branch Managers/Supervisors (GS13). • Other Discipline UFC's (Geotechnical, Civil, Architectural) • Reading to improve personal organization and time management skills and to be a more effective supervisor and leader. Examples include: "The Seven Habits of Highly Effective People" – Stephen R. Covey, "Eat That Frog" – Brian Tracy, "How to Win Friends and Influence People" – Dale Carnegie, "Failing Forward" – John C. Maxwell, "Smarter Faster Better" – Charles Duhigg, "Getting Things Done: The Art of Stress-Free Productivity" – David Allen • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Industry Participation for Journey: Structural Engineer (GS12), Senior Structural Engineer (GS13), Structural Branch Managers/Supervisors (GS13). • Increased participation in ASCE through committee participation. • Participation in organizations to improve communications and public speaking skills, and leadership such as "Toastmasters" • Participate and serve in leadership positions in outside organizations, including: University Alumni Associations, Lyons Clubs, Religious Organizations, Parent Teacher Associations, and Science Technology Engineering and Math (STEM) Organizations.
Competency Assessment: Credentials	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Assessment. • All Required Competency Assessments for Journey: Structural Engineer (GS12), Senior Structural Engineer (GS13), Structural Branch Managers/Supervisors (GS13). • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

B4. Mechanical Designers:

Entry: Mechanical Engineer GS-5/7/9/11/12	
Technical Competencies	DC43.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC43.2. Basic knowledge of mechanical engineering analysis and design. DC43.3. Basic knowledge of material standards used in mechanical engineering DC43.4. Basic knowledge of Department of Defense Unified Facilities Criteria (UFC) and model building codes related to mechanical engineering DC43.5. Design engineer competencies shall primarily be developed through discipline team membership on In House Design Bid Build (IH DBB) projects. DC43.6. Develop calculations, equipment selection, system layout, drawings & specifications, system selection. DC43.7. Perform Heat and Mass Transfer calculations DC43.8. Perform Fluid flow calculations Duct and pipe DC43.9. Perform Thermodynamic cycles calculations for various systems DC43.10. Perform Facility HVAC Load & HVAC System Design DC43.11. Perform Trane Trace Load Analyses DC43.12. Perform Carrier HAP Load Analyses DC43.13. Become familiar with eQuest Energy Software DC43.14. Perform Pipe and Duct Design. DC43.15. Perform Shop Drawing Review DC43.16. Perform and use Specification Application & Editing DC43.17. Perform Building Code Review (ASHRAE 90.1, 62, NFGC, NFPA 54, IPC, IMC DC43.18. Follow Senior Engineer Direction & Respond to Design Comments (Dr Checks) DC43.19. Preform Life Cycle Cost Analyses DC43.20. Provide Pumping System Design & 2 pumps in parallel and in series DC43.21. Cooling tower load analysis and design DC43.22. Steam low pressure system design DC43.23. Plumbing systems for: water, fuel and oil supply DC43.24. Plumbing medical gas and compressed air DC43.25. Compressed air and Inert gases up to 125 psig DC43.26. Plating Shop Makeup water, rectifier Cooling water & Agitation systems DC43.27. Service Water Systems DC43.28. Venting Systems DC43.29. DX self-contained HVAC Systems DC43.30. Dual Temp Water/Air HVAC Systems

	DC43.31. 100% Dedicated Outdoor Air (DOAS) Systems DC43.32. Welding Fume & Bench top Dust Collection DC43.33. Cooler/Freezer Refrigerant System DC43.34. Steam Fin-tube Radiation DC43.35. Steam Coils DC43.36. Develop skills in DDC control technology for mechanical systems (BACnet, Smart Metering "AMI" Smart Grid Technology DC43.37. Supervised Exposure to Construction and fieldwork DC43.38. Supervised Exposure to Acceptance Testing and TAB Processes DC43.39. Supervised Exposure Field Troubleshooting DC43.40. Supervised Exposure Field Construction Walk Through DC43.41. Supervised Exposure Field Visits / Data Collection DC43.42. Supervised Exposure Mechanical Room Site Surveys DC43.43. Supervised Exposure to Underground Utility Distribution and Pier Inspection
Competency Source A: Education	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • A bachelor's degree in Mechanical Engineering from an ABET accredited university. Focus on Mechanical engineering, Energy, Fluid Mechanics, Thermodynamics, Heat and Mass Transfer, & Mathematics, as demonstrated through completion of relevant discipline specific coursework is preferred. • Take and Pass the Fundamentals of Engineering (FE) Examination – leading to an EIT certification
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Complete design rotational assignments at PWD design office and at Echelon IV Core design office • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development
Competency Source C: Training	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • CoP Mechanical Training • HVAC Training Classes • "Rule of thumb" for Cooling, Heating, Infiltration, Ventilation, Humidification, Occupancy, Lighting & Equipment (provided in handout) • Energy Analysis Tools, Design Software Tools, ME Design Software • BLLC-5 and ECONPAK LCCA software

Competency Source D: Reading	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Get and read: 1) Engineers of Dreams – Petroski 2) The Great Bridge – McCullough 3) The Path Between the Seas – McCullough 4) Port Engineering 5) Chief Engineer - Green • DoD Minimum Anti-Terrorism Standards for Buildings (UFC 4-010-01) • DoD Mechanical Engineering UFC (UFC 3-401-01) • DoD UFC 3-410-01, Heating Ventilating, & Air Conditioning Systems • DOD UFC 4-410-04N, Industrial Ventilation • DOD UFC 3-420-01, Plumbing Systems • DOD 3-430-09 Exterior Utility Distribution System • International Mechanical Code IMC • International Plumbing Code, IPC
Competency Source E: Industry Participation	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Industry one hour classes • ASHRAE classes • ASME Classes
Competency Assessment: Credentials	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Assessments. • Optional Certified Energy Manager • Optional LEED or other 3rd Party Certification • Optional Certified Commissioning Provider • Optional Certified Plumbing Design • Optional Geothermal Designer • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Journey: Mechanical Engineer (GS12), Senior Mechanical Engineer (GS13), Mechanical Branch Managers/Supervisors (GS13)	
Technical Competencies	DC43.44. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC43.45. All Technical Competencies for Entry: Mechanical Engineer GS-5/7/9/11/12. DC43.46. Provide mechanical cost efforts and schedules DC43.47. Provide acceptance testing cost efforts and schedules DC43.48. Fully competent in calculations, equipment selection, system layout, drawings & specifications, system selection. DC43.49. Fully competent in complex Heat and Mass Transfer calculations DC43.50. Fully competent in complex Fluid flow calculations Duct and pipe DC43.51. Fully Competent in DDC control technology for mechanical systems (BACnet, Smart Metering "AMI" Smart Grid Technology. DC43.52. Competent in the application of mechanical and plumbing engineering to buildings and waterfront structures, including piping thermal & flexibility & Stress analyses and pipe support systems DC43.53. Fully Competent in Construction and fieldwork DC43.54. Fully Competent in Acceptance Testing and TAB Processes DC43.55. Fully Competent in Field Troubleshooting DC43.56. Fully Competent in Field Construction Walk Through DC43.57. Fully Competent in Field Visits / Data Collection DC43.58. Fully Competent in Mechanical Room Site Surveys DC43.59. Fully Competent in to Underground Utility Distribution and Pier Inspections DC43.60. Compressed Air and Inert Gases up to 1500 psig DC43.61. Compressed air & inert gases above 1500 psig DC43.62. Compressed Oxygen and Hazardous Gases, including Medical Gases DC43.63. Compressed Fuel Gases, Natural Gas, Propane, & LPG DC43.64. Compressed liquid gases: argon, nitrogen, Oxygen, Air, helium, & Hydrogen DC43.65. Plating shop rinse water and waste water DC43.66. Hydraulic Power systems for industrial processes DC43.67. Paint Supply system for Aircraft and vehicle finish coating DC43.68. Central Chiller Plant DC43.69. Absorption Chiller Plant

	DC43.70. Desiccant HVAC and energy wheels DC43.71. Air to water & Water to water heat pump systems including ground source heat pump systems DC43.72. Plating tank fume collection system DC43.73. Battery Shop & Charging systems DC43.74. Corrosion Control Facilities DC43.75. Wood Working Dust Collection System DC43.76. Cold Storage Warehouse DC43.77. Mechanical piping& utilities for docks, piers, & wharfs DC43.78. Above ground & underground utility piping systems DC43.79. POL tanks and systems DC43.80. Mechanical rooms DC43.81. Truck, railcar, & ship/barge loading/unloading DC43.82. HVAC for elevators/ hoist ways DC43.83. Pit sump pump systems DC43.84. Pneumatic Tube Transport DC43.85. Control systems for boilers/furnaces DC43.86. Boilers/Furnaces DC43.87. Coal Receiving/Stacking/Recovery/Ready Storage DC43.88. Clean Rooms DC43.89. Jet Engine Test Cells DC43.90. Missile Engine Test Cells DC43.91. Coal Fly Ash Handling DC43.92. Computer Room HVAC DC43.93. Various HVAC systems DC43.94. VAV system DC43.95. Pipe hangar and support design DC43.96. Combined Heat/Chill/Power Plant DC43.97. HVAC for medical facilities DC43.98. Radiant cooling and heating DC43.99. F35 Cooling DC43.100. Hazardous Dust Collection DC43.101. Carbon Absorption Systems DC43.102. HEPA Filters DC43.103. Demonstrated knowledge in the application of basic mechanical engineering theory and application to buildings. DC43.104. Demonstrated knowledge of mechanical engineering criteria and standards, and experience in the application of DoD specific requirements. DC43.105. Demonstrated knowledge of specific mechanical software. DC43.106. Experience with oversight of AE DBB mechanical engineering design DC43.107. Knowledge of related discipline criteria including architecture, civil engineering, structural, plumbing, and fire protection. DC43.108. Effective cross discipline design coordination skills DC43.109. Experience and knowledge in supervision of design professionals, including workload management,

	executing personnel actions, addressing performance issues, and preparing performance reviews. DC43.110. Working knowledge of NAVFAC programs and policies related to HR, supervision, training, and safety. DC43.111. Experience and knowledge in communicating NAVFAC requirements and effectively managing team compliance.
Competency Source A: Education	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Education for Entry: Mechanical Engineer GS-5/7/9/11/12.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Experiences for Entry: Mechanical Engineer GS-5/7/9/11/12. • CoP Mechanical Training • HVAC Training Classes • Apply "Rule of thumb" for Cooling, Heating, Infiltration, Ventilation, Humidification, Occupancy, Lighting & Equipment (provided in handout) • Serves as Design Manager for multi-discipline projects of increasing complexity. • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Training for Entry: Mechanical Engineer GS-5/7/9/11/12.

Competency Source D: Reading	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Readings for Entry: Mechanical Engineer GS-5/7/9/11/12. • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Industry Participation for Entry: Mechanical Engineer GS-5/7/9/11/12.
Competency Assessment: Credentials	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Assessments. • All Required Competency Assessments for Entry: Mechanical Engineer GS-5/7/9/11/12. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Senior Mechanical Engineer (GS13), Mechanical Technical Discipline Leader/Manager/Coordinator (GS14), Mechanical Criteria Managers and Subject Matter Experts (GS13/14)		
Technical Competencies	DC43.112.	Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies.
	DC43.113.	All Technical Competencies for Journey: Mechanical Engineer (GS12), Senior Mechanical Engineer (GS13), Mechanical Branch Managers/Supervisors (GS13).
	DC43.114.	Serve as Subject Matter Experts in the following Mechanical Engineering Areas: Petroleum Oil, and Lubricants (POL). HVAC, Medical, Controls, Energy, Sustainability, Plumbing, Acceptance Testing, Mechanical and Plumbing UFC Criteria, and associated specifications
	DC43.115.	Fully competent to lead, anticipate, and coordinate multi-discipline design requirements and to incorporate mechanical engineering and plumbing design for complex facilities, utilities and waterfront.
	DC43.116.	Fully capable to provide designer and design management services on other projects.
	DC43.117.	Fully capable in coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA and NAVAIR.
	DC43.118.	Fully capable in managing project and design budgets.
	DC43.119.	Recognized expertise in the application of complex mechanical engineering requirements. Functions as the Component Subject Matter Expert (SME) in area of complex design designer of record, performing analysis and design and managing mechanical design requirement.
	DC43.120.	Accomplished at mentoring less experienced engineers and designers.

	DC43.121. Demonstrated ability to anticipate, and coordinate multi-discipline design requirements and to incorporate in mechanical design for complex building. DC43.122. Working knowledge of requirements of other DoD and DoN Commands such as NAVSEA and NAVAIR. DC43.123. Knowledge and experience as designer and design manager successfully coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA and NAVAIR. DC43.124. Demonstrated project experience with all NAVFAC acquisition execution methods including IH and AE DB and DBB. DC43.125. Demonstrated ability to make effective decisions under uncertain conditions and difficult situations, to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields, to resolve complex issues. DC43.126. Knowledge of NAVFAC, supported commands, Navy organization and doctrine. DC43.127. Knowledge and experience in mitigating business line risk. Implements risk management practices into community of practice management.
Competency Source A: Education	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Education for Journey: Mechanical Engineer (GS12), Senior Mechanical Engineer (GS13), Mechanical Branch Managers/Supervisors (GS13).

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Experiences for Journey: Mechanical Engineer (GS12), Senior Mechanical Engineer (GS13), Mechanical Branch Managers/Supervisors (GS13). • Meet regularly with design teams to provide oversight and direction for successful project completion. • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for multiple complex buildings. • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Training for Journey: Mechanical Engineer (GS12), Senior Mechanical Engineer (GS13), Mechanical Branch Managers/Supervisors (GS13).
Competency Source D: Reading	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD)(GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Reading for the Journey: Mechanical Engineer (GS12), Senior Mechanical Engineer (GS13), Mechanical Branch Managers/Supervisors (GS13). • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources.

	• All Required Industry Participation for the Journey: Mechanical Engineer (GS12), Senior Mechanical Engineer (GS13), Mechanical Branch Managers/Supervisors (GS13). • NAVFAC Lead at industry meetings • Work with and lead Tri-Service disciplinary engineering teams
Competency Assessment: Credentials	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Assessment. • All Required Competency Assessments for Journey: Mechanical Engineer (GS12), Senior Mechanical Engineer (GS13), Mechanical Branch Managers/Supervisors (GS13). • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

B5. Electrical Designers:

Entry: Electrical Engineer GS-5/7/9/11/12	
Technical Competencies	DC44.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC44.2. Basic knowledge of electrical system equipment and materials DC44.3. Basic knowledge of interior electrical systems codes and criteria DC44.4. Basic knowledge of distribution systems and transformer types DC44.5. Basic knowledge of lighting sources, applications and efficiencies. DC44.6. Basic knowledge of telephone and data system applications DC44.7. Basic knowledge and ability to apply NEC requirements DC44.8. Basic knowledge and ability to coordinate designs with other technical disciplines DC44.9. Basic knowledge of electrical safety, arc flash criteria, grounding and bonding DC44.10. Basic knowledge of electrical design software including SKM, AGi32 and Sag10 DC44.11. Basic knowledge of Department of Defense Unified Facilities Criteria (UFC) and model building codes related to electrical engineering DC44.12. Basic knowledge of material standards used in electrical engineering DC44.13. Design engineer competencies shall primarily be developed through discipline team membership on In House Design Bid Build (IH DBB) projects.
Competency Source A: Education	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • A bachelor's degree in Electrical Engineering from an ABET accredited university.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Complete design rotational assignments at PWD design office and at Echelon IV Core design office • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development
Competency Source C: Training	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • NFPA 70 Essentials

Competency Source D: Reading	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • UFC 3-501-01, Electrical Engineering • UFC 3-520-01, Interior Electrical Systems • UFC 3-530-01, Interior and Exterior Lighting Systems and Controls • UFC 3-550-01, Exterior Electrical Power Distribution • UFC 3-560-01, Operation and Maintenance: Electrical Safety • UFC 3-580-01, Telecommunications Interior Infrastructure Planning and Design • NFPA 70, National Electric Code • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources.
Competency Assessment: Credentials	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Assessment. • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Journey: Electrical Engineer (GS12), Senior Electrical Engineer (GS13), Electrical Branch Managers/Supervisors (GS13)	
Technical Competencies	DC44.14. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC44.15. All Technical Competencies for Entry: Electrical Engineer GS-5/7/9/11/12. DC44.16. Extensive knowledge of electrical equipment, materials and installation requirements DC44.17. Working knowledge of interior electrical systems codes and criteria DC44.18. Working knowledge of distribution systems and transformer types including overhead and underground distribution materials and installation methods DC44.19. Working knowledge of lighting sources, applications and efficiencies. DC44.20. Working knowledge of all telephone and data system applications DC44.21. Working knowledge and ability to apply NEC requirements in all design products DC44.22. Working knowledge of electrical safety, arc flash criteria, grounding and bonding DC44.23. Working knowledge of electrical design software including SKM, AGi32 and Sag10 DC44.24. Working knowledge of field acceptance tests and commissioning requirements for electrical equipment and materials DC44.25. Working knowledge of energy saving technologies including renewables. DC44.26. Basic knowledge of Airfield Lighting Design DC44.27. Demonstrated knowledge in the application of basic electrical engineering theory and application to buildings. DC44.28. Demonstrated knowledge of electrical engineering criteria and standards, and experience in the application of DoD specific requirements. DC44.29. Experience with oversight of AE DBB electrical engineering design DC44.30. Developing knowledge of complex electrical engineering requirements. DC44.31. Knowledge of related discipline criteria including architecture, civil engineering, structural, mechanical and plumbing, and fire protection. DC44.32. Effective cross discipline design coordination skills DC44.33. Experience and knowledge in supervision of design professionals, including workload management, executing

	personnel actions, addressing performance issues, and preparing performance reviews. DC44.34. Working knowledge of NAVFAC programs and policies related to HR, supervision, training, and safety. DC44.35. Experience and knowledge in communicating NAVFAC requirements and effectively managing team compliance.
Competency Source A: Education	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Education for Entry: Electrical Engineer GS-5/7/9/11/12. • Continued coursework towards completion of advanced degree in engineering or related field. • Master's Degree in Electrical Engineering
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Experiences for Entry: Electrical Engineer GS-5/7/9/11/12. • Serves as Design Manager for multi-discipline projects of increasing complexity. • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level designer / designers and provide guidance on development of Individual Development Plans (IDP)

Competency Source C: Training	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources.
	• All Required Training for Entry: Electrical Engineer GS5/7/9/11/12.
	• Electrical Subject Matter Expertise Technical Training:
	  • Cathodic Protection
	  • Airfield Lighting
	  • Medical Facilities
	  • Frequency Conversion
	  • Waterfront Power Systems
	  • Electrical Distribution Systems
	  • Lighting Protection
	  • Power Generation/Emergency Power Systems
	  • Communications Systems
	  • Systems Protection & Control

Competency Source D: Reading	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Reading for Entry: Electrical Engineer GS5/7/9/11/12. • UFC 3-570-01, Cathodic Protection • UFC 3-575-01, Lightning and Static Electricity Protection Systems • UFC 3-520-05, Stationary and Mission Batteries • UFC 3-535-01, Visual Air Navigation Facilities • UFC 3-535-02, Design Drawings for Visual Air Navigation Facilities • UFC 3-540-01, Engine-Driven Generator Systems for Prime and Standby Power Applications • UFC 3-555-01N, 400 Hertz Medium Voltage Conversion/Distribution and Low Voltage Utilization Systems • Facility Specific UFCs • NESC, National Electric Safety Code (IEEE C2) • Telecommunications Distribution Methods Manual (BICSI TDMM) • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Industry Participation for Entry: Electrical Engineer GS-5/7/9/11/12.

Competency Assessment: Credentials	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Assessments. • All Required Competency Assessments for Entry: Electrical Engineer GS-5/7/9/11/12. • Desirable to have additional professional accreditations, such as, but not limited to RCDD, LEED AP, Certified Lighting Designer. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Senior Electrical Engineer (GS13), Electrical Technical Discipline Leader/Manager/Coordinator (GS14), Electrical Criteria Managers and Subject Matter Experts (GS13/14)	
Technical Competencies	DC44.36. Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies. DC44.37. All Technical Competencies for Journey: Electrical Engineer (GS12), Senior Electrical Engineer (GS13), Electrical Branch Managers/Supervisors (GS13). DC44.38. Ability to design all systems and provide expert consultation to the electrical community in one or more specially fields of electrical engineering: • Cathodic Protection • Airfield Lighting • Medical Facilities • Frequency Conversion • Waterfront Power Systems • Electrical Distribution Systems • Lighting Protection • Power Generation/Emergency Power Systems • Communications Systems • Systems Protection & Control DC44.39. Recognized expertise in the application of complex electrical engineering requirements. Functions as the Component Subject Matter Expert (SME) in area of complex design designer of record, performing analysis and design and managing electrical design requirement. DC44.40. Accomplished at mentoring less experienced engineers and designers. DC44.41. Demonstrated ability to anticipate, and coordinate multi-discipline design requirements and to incorporate in electrical design for complex building. DC44.42. Working knowledge of requirements of other DoD and DoN Commands such as NAVSEA and NAVAIR. DC44.43. Knowledge and experience as designer and design manager successfully coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA and NAVAIR. DC44.44. Expertise in managing design budgets. DC44.45. Demonstrated project experience with all NAVFAC acquisition execution methods including IH and AE DB and DBB.

	DC44.46. Demonstrated ability to make effective decisions under uncertain conditions and difficult situations, to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields, to resolve complex issues. DC44.47. Knowledge of NAVFAC, supported commands, Navy organization and doctrine. DC44.48. Knowledge and experience in mitigating business line risk. Implements risk management practices into community of practice management.
Competency Source A: Education	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Education for Journey: Electrical Engineer (GS12), Senior Electrical Engineer (GS13), Electrical Branch Managers/Supervisors (GS13).
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Experiences for Journey: Electrical Engineer (GS12), Senior Electrical Engineer (GS13), Electrical Branch Managers/Supervisors (GS13). • Meet regularly with design teams to provide oversight and direction for successful project completion. • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for multiple complex buildings. • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level designer / designers and provide guidance on development of Individual Development Plans (IDP)

Competency Source C: Training	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Training for Journey: Electrical Engineer (GS12), Senior Electrical Engineer (GS13), Electrical Branch Managers/Supervisors (GS13).
Competency Source D: Reading	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Reading for Journey: Electrical Engineer (GS12), Senior Electrical Engineer (GS13), Electrical Branch Managers/Supervisors (GS13).
Competency Source E: Industry Participation	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Industry Participation for Journey: Electrical Engineer (GS12), Senior Electrical Engineer (GS13), Electrical Branch Managers/Supervisors (GS13).
Competency Assessment: Credentials	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Assessment. • All Required Competency Assessments for Journey: Electrical Engineer (GS12), Senior Electrical Engineer (GS13), Electrical Branch Managers/Supervisors (GS13). • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

B6. Civil Designers:

Entry: Civil Engineer GS-5/7/9/11/12	
Technical Competencies	DC45.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC45.2. Basic knowledge of civil engineering analysis and design. DC45.3. Basic knowledge of Department of Defense Unified Facilities Criteria (UFC). DC45.4. Basic knowledge of field investigations and topographic surveys, related equipment, measurements and associated calculations. DC45.5. Basic knowledge of civil engineering software applications. DC45.6. Design engineer competencies shall be developed primarily through participation in In House Design Build (IH DBB) projects with gradually increasing complexity.
Competency Source A: Education	• Refer to Entry: Designer, GS-5/7/9/11/12 for general Competency Sources. • A bachelor's degree in Civil Engineering from an ABET accredited university. Focus on civil engineering, as demonstrated through completion of relevant discipline specific coursework is preferred.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer, GS-5/7/9/11/12 for general Competency Sources. • Meet regularly with a Discipline mentor or supervisor to review design concepts and strategies • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for less complex projects • Review of plans and specifications prepared by an A/E for a complete discipline for less complex projects • Assist senior engineers in more complex analysis and permitting processes. • Complete design rotational assignments at PWD design office and at Echelon IV Core design office • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development
Competency Source C: Training	• Refer to Entry: Designer, GS-5/7/9/11/12 for general Competency Sources. • CADD Community On-line Training • Stormwater Modeling • State Stormwater Management • Low Impact Development Techniques and Design

Competency Source D: Reading	• Refer to Entry: Designer, GS-5/7/9/11/12 for general Competency Sources. • UFC 3-201-01 Civil Engineering • ASCE Publications: https://www.asce.org/publications/ • WEF Publications: https://www.wef.org/resources/publications/books/
Competency Source E: Industry Participation	• Refer to Entry: Designer, GS-5/7/9/11/12 for general Competency Sources.
Competency Assessment: Credentials	• Refer to Entry: Designer, GS-5/7/9/11/12 for general Competency Assessment. • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Journey: Civil Engineer (GS12), Senior Civil Engineer (GS13), Civil Branch Managers/Supervisors (GS13)	
Technical Competencies	DC45.7. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC45.8. All technical competencies for Entry: Civil Engineer GS-5/7/9/11/12 DC45.9. Demonstrated knowledge in application of civil engineering design and analysis. DC45.10. Demonstrated knowledge in Low Impact Development (EISA Section 438) and the 2007 Navy LID Policy in support of the design process. DC45.11. Demonstrated knowledge in storm water management. DC45.12. Demonstrated knowledge of specific civil engineering software. DC45.13. Demonstrated knowledge of civil engineering criteria and standards and expertise in the application of DoD specific requirements, such as sea-level rise and ATFP criteria. DC45.14. Knowledge of hydrographic surveys, geotechnical investigations, measurements and associated calculations. DC45.15. Knowledge of related discipline criteria including architecture, civil engineering, mechanical and plumbing, and fire protection. DC45.16. Effective cross discipline design coordination skills DC45.17. Experience and knowledge in supervision of design professionals, including workload management, executing personnel actions, addressing performance issues, and preparing performance reviews. DC45.18. Working knowledge of NAVFAC programs and policies related to HR, supervision, training, and safety. DC45.19. Experience and knowledge in communicating NAVFAC requirements and effectively managing team compliance.
Competency Source A: Education	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All required education for Entry: Civil Engineer GS-5/7/9/11/12. • Continued coursework towards completion of advanced degree in engineering or related field.

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All required experiences for Entry: Civil Engineer GS-5/7/9/11/12. • Serves as Design Manager for projects of increasing complexity. • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long-term career path projections. • Mentor entry level civil engineer (s) and provide guidance on development of Individual Development Plans (IDP).
Competency Source C: Training	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All required training for Entry: Civil Engineer GS-5/7/9/11/12. • SDDCTEA Traffic Engineering and Safety Training • Develop expertise in a specialty area such as General Site Development, Water/Wastewater, Utilities, Airfields, or Coastal Engineering Design through coursework and experiential assignments • Coursework and other training in Design Management and Project Management related requirements, including: Design Project Estimating, Contract Task Order Development (SAES), Negotiation, Budgeting, Time Management, and Communications Skills
Competency Source D: Reading	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All required reading for Entry: Civil Engineer GS-5/7/9/11/12. • UFC 3-230 and 3-240 Series • ASCE 24 Flood Resistant Design and Construction • ASCE Publications: https://www.asce.org/publications/ • WEF: https://www.wef.org/resources/publications/books/ • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All required industry participation for Entry: Civil Engineer GS-5/7/9/11/12. • Increased participation in ASCE through attendance at industry forums such as the ASCE PORTS Conference. • National Society of Professional Engineers • Involvement in local ASCE or specialty chapters

Competency Assessment: Credentials	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general competency Assessment. • All required Competency Assessments for Entry: Civil Engineer GS-5/7/9/11/12. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Senior Civil Engineer, Civil Technical Discipline Leader/Manager/Coordinator (GS14), Civil Criteria Managers and Subject Matter Experts (GS13/14)	
Technical Competencies	DC45.20. Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies. DC45.21. All Competencies for Journey: Civil Engineer (GS12), Senior Civil Engineer (GS13), Civil Branch Managers/Supervisors (GS13). DC45.22. Recognized expertise in the application of complex civil engineering requirements such as water/wastewater design, site development, coastal design, airfield design and geotechnical analysis complex foundation systems and pavements. Functions as the Component Subject Matter Expert (SME) in area of complex design designer of record, performing analysis and design and managing civil design requirements. DC45.23. Accomplished at mentoring less experienced engineers and designers. DC45.24. Demonstrated ability to anticipate, and coordinate multi-discipline design requirements and to incorporate in civil design for complex shore facilities. DC45.25. Working knowledge of requirements of other DoD and DoN Commands such as NAVSEA, NOSSA, and the DDESB. DC45.26. Knowledge and experience as designer and design manager successfully coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA, NOSSA, and DDESB. DC45.27. Expertise in managing design budgets. DC45.28. Demonstrated project experience with all NAVFAC acquisition execution methods including IH and AE DB and DBB. DC45.29. Demonstrated ability to make effective decisions under uncertain conditions and difficult situations, to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields, to resolve complex issues. DC45.30. Knowledge of NAVFAC, supported commands, Navy organization and doctrine.

Competency Source A: Education	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All required education for Journey: Civil Engineer (GS12), Senior Civil Engineer (GS13), Civil Branch Managers/Supervisors (GS13).
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All required experiences for Journey: Civil Engineer (GS12), Senior Civil Engineer (GS13), and Civil Branch Managers/Supervisors (GS13). • Meet regularly with design teams to provide oversight and direction for successful project completion. • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for complex shore facilities such as airfields or port facilities. • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level civil engineer (s) and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All required training for Journey: Civil Engineer (GS12), Senior Civil Engineer (GS13), and Civil Branch Managers/Supervisors (GS13). • Additional coursework and other training in advanced civil specialty fields including wastewater engineering, airfield engineering, geotechnical engineering, and geo-environmental engineering. • Cross Discipline Training, including contingency engineering, structural, and life safety engineering. • Coursework and other training in non-technical “soft skills”, including: Leadership Development, Time Management, Conflict Resolution, Team Building and Motivation, and Public Speaking

Competency Source D: Reading	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All required reading for Journey: Civil Engineer (GS12), Senior Civil Engineer (GS13), and Civil Branch Managers/Supervisors (GS13). • Other discipline UFCs (Environmental, Structural, Planning) • ASCE Publications: https://www.asce.org/publications/ • WEF Publications: https://www.wef.org/resources/publications/books/ • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All required industry participation for Journey: Civil Engineer (GS12), Senior Civil Engineer (GS13), and Civil Branch Managers/Supervisors (GS13). • Increased participation in ASCE through committee participation. • Participation in organizations to improve communications and public speaking skills, and leadership such as "Toastmasters" • Participate and serve in leadership positions in outside organizations, such as University Alumni Associations, Lyons Clubs, Religious Organizations, Parent Teacher Associations, and Science Technology Engineering and Math (STEM) Organizations.
Competency Assessment: Credentials	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for Competency Assessment. • All required competency assessments for Journey: Civil Engineer (GS12), Senior Civil Engineer (GS13), Civil Branch Managers/Supervisors (GS13) • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

B7. Fire Protection Designers:

Entry: Fire Protection Engineer GS-5/7/9/11/12	
Technical Competencies	DC46.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC46.2. Working knowledge of the following: a. Type of Construction (fire rated construction, fire-stopping, spray-applied fireproofing) b. Protection of Openings c. Interior Finishes d. Means of Egress e. Life Safety Analysis f. Sprinkler Systems and Fire Pumps g. Hydraulic calculations h. Water Supplies i. Fire Alarm Systems and Mass Notification Systems j. Various Types of Detection k. Fire Reporting Systems l. Special Fire Extinguishing Systems m. Smoke Management Systems n. Storage (high piled and rack storage) o. Aircraft Hangars p. Medical Facilities q. Flammable/combustible liquids r. Hazardous Materials s. Ordnance Facilities t. Fire Dynamics & Modeling u. Inspections and Final Acceptance Testing DC46.3. Developed knowledge of engineering inspections, field work, facility assessments, and surveys, and preparing reports and studies DC46.4. Developed knowledge in construction inspections and acceptance tests DC46.5. Review A/E prepared contract documents (Design-Bid-Build plans and specifications and RFPs) for fire protection engineering DC46.6. Prepare In-house Design-Bid-Build plans and specifications for fire protection engineering DC46.7. Review construction submittals (drawings, manufacturer's data sheets, calculations) for the variety of systems listed in DC46.2 above. DC46.8. Basic knowledge of Department of Defense Unified Facilities Criteria (UFC) and model building codes related to fire protection engineering DC46.9. Basic knowledge of material standards used in fire protection engineering DC46.10. Basic Knowledge of fire protection engineering software applications

	DC46.11. Design engineer competencies shall primarily be developed through discipline team membership on In House Design Bid Build (IH DBB) projects.
Competency Source A: Education	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Complete design rotational assignments at PWD design office and at Echelon IV Core design office • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development
Competency Source C: Training	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Various Technical Training as it applies to DC46.2 above.
Competency Source D: Reading	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • MIL-STD-3007, Standard Practice Unified Facilities Criteria, Facilities Criteria and Unified Facilities Guide Specifications • UFC 1-300-01, Criteria Format Standard • UFC 1-300-02, Unified Facilities Guide Specifications (UFGS) Format Standard • UFC 3-600-01, Fire Protection Engineering for Facilities • UFC 3-601-02, O&M: Inspection, Testing, and Maintenance of Fire Protection Systems • UFC 4-021-01, Design and O&M: Mass Notification Systems • UFC 4-211-01, Aircraft Maintenance Hangars • International Building Code (IBC) • NFPA 1, 13, 20, 72, 80, 90A, 101, 914 • FM Global Loss Prevention Data Sheets
Competency Source E: Industry Participation	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources.
Competency Assessment: Credentials	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Assessment. • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Journey: Fire Protection Engineer (GS12), Senior Fire Protection Engineer (GS13), Fire Protection Branch Managers/Supervisors (GS13)	
Technical Competencies	DC46.12. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC46.13. Expanded knowledge of all Technical Competencies for Entry: Fire Protection Engineer GS-5/7/9/11/12. DC46.14. Demonstrated knowledge in the application of basic fire protection engineering theory and application to buildings. DC46.15. Demonstrated knowledge of fire protection engineering criteria and standards, and experience in the application of DoD specific requirements. DC46.16. Demonstrated knowledge of specific fire protection software. DC46.17. Experience with oversight of AE DBB fire protection engineering design DC46.18. Developing knowledge of complex fire protection engineering requirements such as suppression and alarm systems. DC46.19. Knowledge of related discipline criteria including architecture, civil engineering, structural, mechanical and plumbing, and electrical. DC46.20. Effective cross discipline design coordination skills DC46.21. Experience and knowledge in supervision of design professionals, including workload management, executing personnel actions, addressing performance issues, and preparing performance reviews. DC46.22. Working knowledge of NAVFAC programs and policies related to HR, supervision, training, and safety. DC46.23. Experience and knowledge in communicating NAVFAC requirements and effectively managing team compliance.
Competency Source A: Education	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Education for Entry: Fire Protection Engineer GS-5/7/9/11/12. • Recommend pursuing master's degree (MS or MBA)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Experiences for Entry: Fire Protection Engineer GS-5/7/9/11/12. • Prepare Design-Build RFP (In-house Design-Build) for fire protection engineering • Provide Post-Award Contract Services (PCAS), including RFIs, construction submittals, inspections, and final acceptance tests as they pertain to Fire Protection Engineering • Discussions with other Senior Fire Protection Engineers within NAVFAC Enterprise • Recommend rotational assignment to PWBL or FEAD. • Serves as Design Manager for multi-discipline projects of increasing complexity. • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Training for Entry: Fire Protection Engineer GS-5/7/9/11/12.
Competency Source D: Reading	• Refer Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Reading for Entry: Fire Protection Engineer GS-5/7/9/11/12. • International Residential Code (IRC) • ASME A17.1 Safety Code for Elevators and Escalators • BMS Processes for PWBL and AMBL as they pertain to project development • NFPA Handbook • SFPE Handbook • Technical Journals as recommended by the TDL

Competency Source E: Industry Participation	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Industry Participation for Entry: Fire Protection Engineer GS-5/7/9/11/12.
Competency Assessment: Credentials	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Assessments. • All Required Competency Assessments for Entry: Fire Protection Engineer GS-5/7/9/11/12. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Senior Designer, Senior Fire Protection Engineer (GS13), Fire Protection Technical Discipline Leader/Manager/Coordinator (GS14), Fire Protection Criteria Managers and Subject Matter Experts (GS13/14)	
Technical Competencies	DC46.24. Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies. DC46.25. Expanded knowledge of all Technical Competencies for Journey: Fire Protection Engineer (GS12), Senior Fire Protection Engineer (GS13), Fire Protection Branch Managers/Supervisors (GS13). DC46.26. Recognized expertise in the application of complex fire protection engineering requirements. Functions as the Component Subject Matter Expert (SME) in area of complex design designer of record, performing analysis and design and managing fire protection requirement. DC46.27. Accomplished at mentoring less experienced engineers and designers. DC46.28. Demonstrated ability to anticipate, and coordinate multi-discipline design requirements and to incorporate in fire protection design for complex building. DC46.29. Working knowledge of requirements of other DoD and DoN Commands such as NAVSEA and NAVAIR. DC46.30. Knowledge and experience as designer and design manager successfully coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA and NAVAIR. DC46.31. Expertise in managing design budgets. DC46.32. Demonstrated project experience with all NAVFAC acquisition execution methods including IH and AE DB and DBB. DC46.33. Demonstrated ability to make effective decisions under uncertain conditions and difficult situations, to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields, to resolve complex issues. DC46.34. Knowledge of NAVFAC, supported commands, Navy organization and doctrine. DC46.35. Knowledge and experience in mitigating business line risk. Implements risk management practices into community of practice management.

Competency Source A: Education	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Education for Journey: Fire Protection Engineer (GS12), Senior Fire Protection Engineer (GS13), Fire Protection Branch Managers/Supervisors (GS13). • Recommend supervisory/management training.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Experiences for Journey: Fire Protection Engineer (GS12), Senior Fire Protection Engineer (GS13), Fire Protection Branch Managers/Supervisors (GS13). • Provide Post-Award Contract Services (PCAS), including RFIs, construction submittals, inspections, and final acceptance tests. • Recommend rotational assignment to PWBL or FEAD. • Meet regularly with design teams to provide oversight and direction for successful project completion. • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for multiple complex buildings. • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Training for Journey: Fire Protection Engineer (GS12), Senior Fire Protection Engineer (GS13), Fire Protection Branch Managers/Supervisors (GS13).

Competency Source D: Reading	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Reading for Journey: Fire Protection Engineer (GS12), Senior Fire Protection Engineer (GS13), Fire Protection Branch Managers/Supervisors (GS13). • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Industry Participation for Journey: Fire Protection Engineer (GS12), Senior Fire Protection Engineer (GS13), Fire Protection Branch Managers/Supervisors (GS13).
Competency Assessment: Credentials	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for Competency Assessment. • All Required Competency Assessments for Journey: Fire Protection Engineer (GS12), Senior Fire Protection Engineer (GS13), Fire Protection Branch Managers/Supervisors (GS13). • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

B8. Cost Estimating:

Entry: N/A GS 1-10	
Refer to the NAVFAC Engineering and Architect Community Management Framework and the Design and Engineering and Construction Community Management Competencies of the Design and Construction Community Management Plan	
Journey: Cost Technician (GS 11), Cost Engineer (GS12), Cost Estimator (GS12)	
Technical Competencies	DC47.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC47.2. Knowledge of Department of Defense Unified Facilities Criteria (UFC) related to cost engineering DC47.3. Knowledge of cost estimating software applications DC47.4. Advanced knowledge of various construction means and methods necessary to develop complete estimates. DC47.5. Ability to use various software tools (including spreadsheets and simple parametric models) to accurately and rapidly develop quantities for a project DC47.6. Ability to develop complex parametric estimates using the standard parametric estimating software tool DC47.7. Ability to develop detailed estimates of complex facilities using the standard detailed estimating software tool DC47.8. Knowledge of Value Engineering (VE) concepts and principals in order to be a key member of a design team participating in a VE process DC47.9. Knowledge of Cost Schedule Risk Analysis (CSRA) concepts and principals in order to be a key member of a design team participating in the CSRA process DC47.10. Knowledge of critical path method and Gantt chart development DC47.11. Knowledge of cost estimate classifications and corresponding estimate accuracies DC47.12. Knowledge of the MILCON programming process DC47.13. Ability to support Contract Modifications by determining the corresponding cost implications due to impacts to the construction schedule DC47.14. Clear ability to coordinate input and expertise from other disciplines, ensuring a complete and fully developed cost product DC47.15. Knowledge and skills to manage and lead cost teams DC47.16. Knowledge and skills in performing and leading quality control and quality assurance activities which include review of in-house and AE developed cost deliverables. DC47.17. Experience in developing labor estimates

	DC47.18. Skilled at participating in design charrettes, FACD and project programming meetings DC47.19. Knowledge of NAVFAC acquisition delivery vehicles including DBB, DB, and ECI DC47.20. Working knowledge of the Facilities Projects Manual, OPNAVINST 11010.20H, the NAVFAC Design Build Master Template (NDBM) and the Whole Building Design Guide (WBDG) including a knowledge of the processes outlined in BMS DC47.21. Ability to mentor Cost Engineers, Estimators, Technicians DC47.22. Knowledge of databases and the ability to organize, store, query and analyze cost and other data using current software tools
Competency Source A: Education	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Cost Engineer: A bachelor's or master's degree from an accredited (ABET, NAAB, respectively) university in Engineering, or Architecture (DC.1) • Cost Estimator: A bachelor's or master's degree from an accredited (ABET, NAAB, LAAB or CIDA, respectively) university in Engineering, Engineering Technology, Construction Management, Architecture, Mathematics, Accounting or Business. • Pursuit of Graduate Studies Preferred
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Meet regularly with a Discipline mentor or supervisor to review design concepts and strategies • Preparation of cost estimates, and risk analysis for (In-house Design Bid Build) for more complex projects • Review of cost estimates, construction schedules and risk analysis prepared by an A/E for more complex projects • Rotational assignments with Construction or Design
Competency Source C: Training	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • MII Cost Software Basic and Advanced • Electronic Project Generator (EPG) • DoD 770- DOD Cost Estimating Policy Overview • MCON101 • CRA 220- Basic Cost Risk Analysis • Microsoft Excel Basic and Intermediate • Microsoft Access Basic and Intermediate • Microsoft Project Basic and Intermediate

Competency Source D: Reading	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Skills and Knowledge of Cost Engineering (AACEi) • AACEi RP41R-08 Risk Analysis and Contingency Determination using Range Estimating • UFC 3-701-01 DoD Facilities Pricing Guide • UFC 3-730-01 Programming Cost Estimates for Military Construction • UFC 3-740-05 Construction Cost Estimating • AACEi RP56R-08 Cost Estimate Classification System • "Project and Cost Engineers' Handbook" - Kenneth King Humphreys • "Applied Cost Engineering" - A.B. Lorenzoni and Forrest D. Clark • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources.
Competency Assessment: Credentials	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Assessment. • Registration as Professional Engineer (PE) or Registered Architect (RA) should be a part of the development plan for a GS12 level for Cost Engineers. • Tri-Service Cost Certification is highly recommended for all Cost Estimators and Engineers. Cost Technicians can be certified as CCTs. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Senior Cost Estimator (GS13), Senior Cost Engineer (GS13), Technical Discipline Manager/Coordinator (GS13/14), Chief Cost Engineer (GS14), Chief Economist (GS14), SIOP Program Cost Engineer (GS15)	
Technical Competencies	DC47.23. Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies DC47.24. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC47.25. All competencies of Journey: Cost Technician (GS11), Cost Engineer (GS12), Cost Estimator (GS12). DC47.26. Advanced knowledge and ability to mentor/train Journey Cost Engineers in cost analysis of construction methods DC47.27. Advanced knowledge of and ability to mentor/train Journey Cost Engineers in quantity take off techniques DC47.28. Advanced knowledge of and ability to mentor/train Journey Cost Engineers in parametric estimating techniques DC47.29. Advanced knowledge of and ability to mentor/train Journey Cost Engineers in detail estimating techniques DC47.30. Advanced knowledge of and ability to mentor/train Journey Cost Engineers in construction modifications and duration analysis DC47.31. Working knowledge of LCCA concepts and principals along with ECONPAK software. Ability to apply these in support of project planning efforts for project development DC47.32. Working knowledge of database principals. Ability to develop flat files, join data from different sources and successfully import/export data to and from different applications DC47.33. Working knowledge of CSRA concepts and principals. Ability to ply there during the development of the cost estimate DC47.34. Working knowledge of VE concepts and principles. Ability to apply these during a VE process DC47.35. Advanced knowledge of construction scheduling concepts and principals DC47.36. Working knowledge of the Criteria Management System DC47.37. Ability to revise or develop new cost criteria and guidance DC47.38. Ability to lead community meetings DC47.39. Established experience and leadership in management of

	cost products from simplistic to highly complex DC47.40. Ability to plan, direct, and review economic studies of the factors affecting the construction industry DC47.41. Ability to develop models to be used for forecasting future trends affecting construction pricing DC47.42. Knowledge of economic factors and the ability to apply them to affect current and future project budgets. DC47.43. Expertise in performing and leading quality control and quality assurance activities which include review of in-house and AE developed cost deliverables DC47.44. Knowledge of NAVFAC, Supported Commands, Navy Organization and doctrine DC47.45. Ability to brief clients and senior leadership DC47.46. Ability to plan, direct, and review economic studies of the factors affecting the construction industry DC47.47. Ability to develop models to be used for forecasting future trends affecting construction pricing DC47.48. Knowledge of economic factors and the ability to apply them to affect current and future project budgets.
Competency Source A: Education	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies • Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Education for Journey: Cost Technician (GS11), Cost Engineer (GS12), Cost Estimator (GS12). • Cost Engineer: A bachelor′s or master′s degree from an accredited (ABET, or NAAB, respectively) university in Engineering or Architecture • Economist: A bachelor's or master's degree from an accredited university in Economics. • Graduate Level Preferred (MS, MBA, etc.)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies • Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Experiences for Journey: Cost Technician (GS11), Cost Engineer (GS12), Cost Estimator (GS12). • Mentor discipline regularly or supervise staff to review design concepts and strategies • Preparation of cost estimates and risk analysis (In-house Design Bid Build) for highly complex projects • Review of cost estimates, construction schedules and risk analysis prepared by an A/E for a complete discipline for highly complex projects • Rotational assignments with AM
Competency Source C: Training	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD)(GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies • Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Training for Journey: Cost Technician (GS11), Cost Engineer (GS12), Cost Estimator (GS12).
Competency Source D: Reading	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies • Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources.

	• All Required Reading for Journey: Cost Technician (GS11), Cost Engineer (GS12), Cost Estimator (GS12). • CI Project Management Manual • "Skills & Knowledge of Cost Engineering: A Continuing Project of the AACE International Education Board" • "Techniques for Capital Expenditure Analysis" – Henry C. Thorne • "Cost Engineering Planning Techniques for Management" – James Hay Black • Technical Journals as recommended by the TDL
Competency Source E: Industry Participation	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD)(GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies • Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM)(GS13) for general Competency Sources. • All Required Industry Participation for Journey: Cost Technician (GS11), Cost Engineer (GS12), Cost Estimator (GS12).
Competency Assessment: Credentials	• Refer to Expert: Senior Designer (GS14), Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies • Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Assessment. • All Required Competency Assessments for Journey: Cost Technician (GS11), Cost Engineer (GS12), Cost Estimator (GS12). • Registration as Professional Engineer (PE) or Registered Architect (RA) is required at the GS13 level & above (not required for Cost Estimator and Economist). • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points • GS13 level requires Tri-Service Cost certification as CCC, CCE. Tri-Service Cost Certification is highly recommended for all Cost Estimators and Engineers.

B9. Interior Designer:

Entry: Interior Design Designer GS-5/7/9/11/12	
Technical Competencies	DC48.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC48.2. Working knowledge and practical experience in preparing and reviewing design deliverables, including Comprehensive Interior Design comprised of Furniture, Fixture and Equipment (FF&E) Packages and Structural Interior Design (SID) Packages. DC48.3. Theory- Ability to integrate findings with knowledge of interior design. DC48.4. Practice -Ability to formulate design concepts that are appropriate, functional, and aesthetic and communicate ideas through form. DC48.5. Building Systems - Knowledge of building systems such as HVAC, lighting, electrical, acoustics, LAN, etc. DC48.6. Millwork and Architectural Details - Ability to detail cabinetry and interior architectural details. DC48.7. Building Material Sources and Suppliers - Knowledge of surface and structural materials DC48.8. Programming Ability to interview, investigate, identify, and document client needs. DC48.9. Commercial Procurement Practices - Understanding of procuring furniture i.e. bids, discounting, performance specifications. DC48.10. Color Theory - Knowledge and application of the physical and psychological aspects of color and light. DC48.11. Elements - Knowledge and application of basic elements and principles of line, shape, form, pattern, and rhythm in three-dimensional design. DC48.12. Style and History - Knowledge of design movements and historical and cultural context of design application. DC48.13. Environmental Components - Knowledge of design attributes of materials, lighting, furniture, textiles, and color viewed in conjunction with physical, sociological, and psychological factors. DC48.14. Anthropometrics - Knowledge of the science measuring the human body to determine differences in individuals. DC48.15. Building Materials Specification Ability to specify products based on performance attributes and appropriateness. DC48.16. Space Planning & Functional Analysis Ability to analyze clients' needs and develop specific solutions. DC48.17. Architectural Barriers Act (ABA) and International Building Code (IBC) - Knowledge of the application of laws, building codes, regulations, and standards that affect design solutions in order to protect the health, safety, and

	welfare of the public. DC48.18. Government Procurement Practices - Understanding of furniture procurement processes in the Federal Government under FAR. DC48.19. Commercial Furniture Manufacturers - Knowledge of contract furniture/furnishings manufacturers including systems furniture. DC48.20. Commercial Furniture Suppliers and Dealers - Knowledge of contract furniture/furnishings suppliers and dealers. DC48.21. Application - Ability to apply color, elements, and history in design solutions. Analyze design objectives and spatial requirements and integrate with knowledge of interior design. DC48.22. Environmental Components - Knowledge of design attributes of materials, lighting, furniture, textiles, and color viewed in conjunction with physical, sociological, and psychological factors. DC48.23. Signage Knowledge of contract signage sources and ability to apply to client/project requirements. DC48.24. Basic knowledge of Department of Defense Unified Facilities Criteria (UFC) and model building codes related to interior design DC48.25. Basic knowledge of material standards used in interior design (i.e. interior finishes, furniture) DC48.26. Basic Knowledge of interior design software applications DC48.27. Design competencies shall primarily be developed through discipline team membership on In House Design Bid Build (IH DBB) projects.
Competency Source A: Education	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Support preparation of Design-Build RFP (In-house Design-Build) for a complete discipline • Provide Post-Award Contract Services (PCAS), including RFIs, construction submittals, technical acceptance of critical systems, interior finishes and FF&E installation, etc. • Complete design rotational assignments at PWD design office and at Echelon IV Core design office • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development
Competency Source C: Training	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • CADD Community On-Line Training • SpecsIntact Training (Classroom preferred)

Competency Source D: Reading	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • NAVFAC Capital Improvements Business Management System (BMS) • Collateral Equipment (FF&E) Criteria & Templates Located at https://www.wbdg.org/ffc/navy-navfac/collateral-equipment • NAVFAC Interior Design Procedures: Furniture, Fixtures & Equipment (FF&E) • NAVFAC Turnkey Furniture, Fixtures & Equipment (FF&E) Contracting Guide for Construction Projects • UFC 3-101-01 Architecture • UFC 3-120-10 Interior Design • UFC 1-200-02 High Performance & Sustainable Building Requirements • Seven Habits of Highly Effective People
Competency Source E: Industry Participation	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Attend Industry training and trade shows i.e. NeoCon, Healthcare Facilities Symposium, Healthcare Facilities Symposium and local events to maintain current knowledge of design trends, commercial finishes and furniture products.
Competency Assessment: Credentials	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Assessment. • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Journey: Interior Design Designer (GS12), Senior Interior Design Designer (GS13), Interior Design Branch Managers/Supervisors (GS13)	
Technical Competencies	DC48.28. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC48.29. All Technical Competencies for Entry: Interior Design Designer GS-5/7/9/11/12. DC48.30. Knowledge and experience in preparing and reviewing design deliverables, including Comprehensive Interior Design comprised of Furniture, Fixture and Equipment (FF&E) Packages and Structural Interior Design (SID) Packages. DC48.31. Policy and Objectives - Broad knowledge and application of pertinent objectives, policies and programs pertaining to specialty design projects. DC48.32. Adaptation of Theory and Practice - Knowledge and ability to modify standard practices and adapt techniques to solve a variety of interior design problems. DC48.33. Design Integration - Ability to coordinate interior design solution with engineering disciplines and field personnel. DC48.34. Building Materials Analysis - Ability to analyze and specify product based on safety, testing, and sustainability. DC48.35. Building System Integration - Ability to develop solutions integrating with building systems. DC48.36. Maintenance - Knowledge and ability to design facilities that are economical to maintain and operate. DC48.37. Post Occupancy Evaluation - Ability to analyze and determine client's needs, goals, & life safety requirements were met. DC48.38. Furniture Procurement Methods - Knowledge of various methods of furniture procurement within the Navy. DC48.39. Furniture Funding Process - Knowledge of furniture funding methods and processes within the Navy. DC48.40. Furniture Procurement Strategy - Ability to develop furniture procurement strategy within given project parameters and FAR. DC48.41. Systems Furniture Analysis - Ability to analyze the similarities and differences in the major systems furniture suppliers. DC48.42. Analysis and Specification -Ability to analyze and specify products based on price, performance, aesthetics, availability and client requirements. DC48.43. Productivity - Knowledge and ability to translate all elements of design and human factors into a functional and productive environment and improve quality of life.

	DC48.44. Acoustics - Knowledge of acoustics in the design of productive environments. DC48.45. Wayfinding - Ability to design a well-organized, comprehensible interior environment that guides visitors through the space. DC48.46. Ergonomic Solutions - Ability to apply knowledge of ergonomics (the study of people in adjusting to their environment and the science that seeks to adapt work conditions to suit the worker) in space planning and furniture selection. DC48.47. Specialty Design Programming Requirements - Knowledge of specialty project types and Navy programming requirements for facilities such as Medical, Administrative, Housing, etc. DC48.48. Demonstrated knowledge in the application of basic interior design theory and application to buildings. DC48.49. Demonstrated knowledge of interior design criteria and standards, and experience in the application of DoD specific requirements. DC48.50. Experience with oversight of AE DBB interior design DC48.51. Knowledge of related discipline criteria including architecture, civil engineering, mechanical and plumbing, and fire protection. DC48.52. Effective cross discipline design coordination skills DC48.53. Experience and knowledge in supervision of design professionals, including workload management, executing personnel actions, addressing performance issues, and preparing performance reviews. DC48.54. Working knowledge of NAVFAC programs and policies related to HR, supervision, training, and safety. DC48.55. Experience and knowledge in communicating NAVFAC requirements and effectively managing team compliance.
Competency Source A: Education	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Education for Entry: Interior Design Designer GS-5/7/9/11/12.

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Experiences for Entry: Interior Design Designer GS-5/7/9/11/12. • Prepare Design-Build RFP (In-house Design-Build) for a complete discipline • Provide Post-Award Contract Services (PCAS), including RFIs, construction submittals, technical acceptance of critical systems interior finishes and FF&E installation, etc. • Serves as Design Manager for multi-discipline projects of increasing complexity. • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Training for Entry: Interior Design Designer GS-5/7/9/11/12.
Competency Source D: Reading	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Reading for Entry: Interior Design Designer GS-5/7/9/11/12.
Competency Source E: Industry Participation	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Industry Participation for Entry: Interior Design Designer GS-5/7/9/11/12.

Competency Assessment: Credentials	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Assessment. • All Required Competency Assessments for Entry: Interior Design Designer GS-5/7/9/11/12. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Senior Interior Design Designer (GS13), Lead Interior Design Designer Subject Matter Expert (GS13)	
Technical Competencies	DC48.56. Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies. DC48.57. All Technical Competencies for Journey: Interior Design Designer (GS12), Senior Interior Design Designer (GS13). DC48.58. Expertise in preparing and reviewing design deliverables, including Comprehensive Interior Design comprised of Furniture, Fixture and Equipment (FF&E) Packages and Structural Interior Design (SID) Packages. DC48.59. Knowledge Management - Knowledge and skills to evaluate and incorporate the latest developments in the field of interior design into technical requirements and to serve as expert technical advisor. DC48.60. Formulation of Policy - Knowledge of interior design process to draft Interior Design policy for implementation. DC48.61. Conceptualization - Knowledge and skill to conceptualize and develop innovative approaches to the latest problems in space planning and functional analysis. DC48.62. Interior Design Concepts to Optimize Application - Knowledge and skill to ensure design solutions are optimized for state-of-the-art technology and functionality. DC48.63. Economic Analysis -Extensive knowledge and technical experience to determine economic viability versus potential return to the client. DC48.64. Innovation - Knowledge and skill to provide Navy advisory, consulting, and reviewing services for Interior Design within and outside NAVFAC and to recommend unique solutions. DC48.65. Specialty Facility Interior Design Criteria - Knowledge and skill to develop interior design criteria and innovative approaches to design problems in the design of various specialty projects. DC48.66. Recognized expertise in the application of complex interior design requirements. Functions as the Component Subject Matter Expert (SME) in area of complex design designer of record, performing analysis and design and managing interior design requirement. DC48.67. Accomplished at mentoring less experienced designers. DC48.68. Demonstrated ability to anticipate, and coordinate multi-discipline design requirements and to incorporate in interior design for complex building. DC48.69. Working knowledge of requirements of other DoD and DoN Commands such as NAVSEA and NAVAIR.

	DC48.70. Knowledge and experience as designer and design manager successfully coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA and NAVAIR. DC48.71. Expertise in managing design budgets. DC48.72. Demonstrated project experience with all NAVFAC acquisition execution methods including IH and AE DB and DBB. DC48.73. Demonstrated ability to make effective decisions under uncertain conditions and difficult situations, to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields, to resolve complex issues. DC48.74. Knowledge of NAVFAC, supported commands, Navy organization and doctrine. DC48.75. Knowledge and experience in mitigating business line risk. Implements risk management practices into community of practice management.
Competency Source A: Education	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Education for Journey: Interior Design Designer (GS12), Senior Interior Design Designer (GS13).
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Experiences for Journey: Interior Design Designer (GS12), Senior Interior Design Designer (GS13). • Meet regularly with design teams to provide oversight and direction for successful project completion. • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for multiple complex buildings. • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level designer / designers and provide guidance on development of Individual Development Plans (IDP)

Competency Source C: Training	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Training for Journey: Interior Design Designer (GS12), Senior Interior Design Designer (GS13).
Competency Source D: Reading	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Reading for Journey: Interior Design Designer (GS12), Senior Interior Design Designer (GS13).
Competency Source E: Industry Participation	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Industry Participation for Journey: Interior Design Designer (GS12), Senior Interior Design Designer (GS13).
Competency Assessment: Credentials	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Assessments. • All Required Competency Assessments for Journey: Interior Design Designer (GS12), Senior Interior Design Designer (GS13). • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

B10. Landscape Architect:

Entry: Landscape Architect GS-5/7/9/11/12	
Technical Competencies	DC49.1. Refer to Entry: Designer GS-5/7/9/11/12 for general Technical Competencies. DC49.2. Basic knowledge of landscape architecture analysis and design. DC49.3. Basic knowledge of Department of Defense Unified Facilities Criteria (UFC) and model building codes related to landscape architecture DC49.4. Basic knowledge of material standards used in landscape architecture DC49.5. Basic Knowledge of landscape architecture software applications DC49.6. Design competencies shall primarily be developed through discipline team membership on In House Design Bid Build (IH DBB) projects.
Competency Source A: Education	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources.
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Support preparation of Design-Build RFP (In-house Design-Build) for a complete discipline • Provide Post-Award Contract Services (PCAS), including RFIs, construction submittals, technical acceptance of critical systems, etc. • Complete design rotational assignments at PWD design office and at Echelon IV Core design office • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development
Competency Source C: Training	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • Landscape Architectural Design • History of Landscape Architecture • Building Materials and Methods • Horticulture • Sustainability Design • Green Building Design • CADD Community On-Line Training

Competency Source D: Reading	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources. • NAVFAC Capital Improvements Business Management System (BMS) • UFC 3-201-02 Landscape Architecture • UFC 3-201-01 Civil Engineering • UFC 3-210-10 Low Impact Development • UFC 1-200-02 High Performance & Sustainable Building Requirements • UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings • Architectural Barriers Act (ABA) Standards
Competency Source E: Industry Participation	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Sources.
Competency Assessment: Credentials	• Refer to Entry: Designer GS-5/7/9/11/12 for general Competency Assessment. • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Journey: Landscape Architect (GS12), Senior Landscape Architect (GS13), Landscape Architect Branch Managers/Supervisors (GS13)	
Technical Competencies	DC49.7. Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manager (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Technical Competencies. DC49.8. All Technical Competencies for Entry: Landscape Architect GS-5/7/9/11/12. DC49.9. Demonstrated knowledge in the application of basic landscape architecture theory and application to buildings and sites. DC49.10. Demonstrated knowledge of landscape architecture criteria and standards, and experience in the application of DoD specific requirements. DC49.11. Experience with oversight of AE DBB landscape architecture design DC49.12. Knowledge of related discipline criteria including architecture, civil engineering, mechanical and plumbing, and fire protection. DC49.13. Effective cross discipline design coordination skills DC49.14. Experience and knowledge in supervision of design professionals, including workload management, executing personnel actions, addressing performance issues, and preparing performance reviews. DC49.15. Working knowledge of NAVFAC programs and policies related to HR, supervision, training, and safety. DC49.16. Experience and knowledge in communicating NAVFAC requirements and effectively managing team compliance.
Competency Source A: Education	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Education for Entry: Landscape Architect GS-5/7/9/11/12.

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM)-(GS13) for general Competency Sources. • Prepare Design-Build RFP (In-house Design-Build) for a complete discipline • Provide Post-Award Contract Services (PCAS), including RFIs, construction submittals, technical acceptance of critical systems, etc. • All Required Experiences for Entry: Landscape Architect GS-5/7/9/11/12. • Serves as Design Manager for multi-discipline projects of increasing complexity. • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Training for Entry: Landscape Architect GS-5/7/9/11/12.
Competency Source D: Reading	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Reading for Entry: Landscape Architect GS-5/7/9/11/12.
Competency Source E: Industry Participation	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Sources. • All Required Industry Participation for Entry: Landscape Architect GS-5/7/9/11/12.

Competency Assessment: Credentials	• Refer to Journey: Designer (GS12), Senior Designer (GS13), Discipline Branch Managers/Supervisors (GS13), FEAD PMEBH (GS13), Design Program Manager (GS13), Integrated Design Manger (GS13), CADD & Engineering Applications Manager (CEAM) (GS13) for general Competency Assessment. • All Required Competency Assessments for Entry: Landscape Architect GS-5/7/9/11/12. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Senior Landscape Architect (GS13), Lead Landscape Architect Subject Matter Expert (GS13)	
Technical Competencies	DC49.17. Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Technical Competencies. DC49.18. All Technical Competencies for Journey: Landscape Architect (GS12), Senior Landscape Architect (GS13), Landscape Architect Branch Managers/Supervisors (GS13). DC49.19. Recognized expertise in the application of complex landscape architecture requirements. Functions as the Component Subject Matter Expert (SME) in area of complex design designer of record, performing analysis and design and managing landscape architecture design requirement. DC49.20. Accomplished at mentoring less experienced designers. DC49.21. Demonstrated ability to anticipate, and coordinate multi-discipline design requirements and to incorporate in landscape architecture design for complex building. DC49.22. Working knowledge of requirements of other DoD and DoN Commands such as NAVSEA and NAVAIR. DC49.23. Knowledge and experience as designer and design manager successfully coordinating with the project team, FEAD/ROICC, other NAVFAC design components such as NCC and EXWC, other NAVFAC Business and Support Lines such as Asset Management, Environmental, and Acquisitions, and other DoD and DoN Commands such as NAVSEA and NAVAIR. DC49.24. Expertise in managing design budgets. DC49.25. Demonstrated project experience with all NAVFAC acquisition execution methods including IH and AE DB and DBB. DC49.26. Demonstrated ability to make effective decisions under uncertain conditions and difficult situations, to interrelate professionals and issues with associated problem solving and management techniques from diverse engineering fields, to resolve complex issues. DC49.27. Knowledge of NAVFAC, supported commands, Navy organization and doctrine. DC49.28. Knowledge and experience in mitigating business line risk. Implements risk management practices into community of practice management.

Competency Source A: Education	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Education for Journey: Landscape Architect (GS12), Senior Landscape Architect (GS13), Landscape Architect Branch Managers/Supervisors (GS13).
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Experiences for Journey: Landscape Architect (GS12), Senior Landscape Architect (GS13), Landscape Architect Branch Managers/Supervisors (GS13). • Meet regularly with design teams to provide oversight and direction for successful project completion. • Design and preparation of plans and specs (In-house Design Bid Build) for a complete discipline for multiple complex buildings. • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level designer / designers and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Training for Journey: Landscape Architect (GS12), Senior Landscape Architect (GS13), Landscape Architect Branch Managers/Supervisors (GS13).

Competency Source D: Reading	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Reading for Journey: Landscape Architect (GS12), Senior Landscape Architect (GS13), Landscape Architect Branch Managers/Supervisors (GS13).
Competency Source E: Industry Participation	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Sources. • All Required Industry Participation for Journey: Landscape Architect (GS12), Senior Landscape Architect (GS13), Landscape Architect Branch Managers/Supervisors (GS13).
Competency Assessment: Credentials	• Refer to Expert: Senior Designer, Technical Discipline Leader/Manager/Coordinator (GS14), Directors (DPD/QACMD/DC CARD) (GS14), CADD & Engineering Applications Manager (GS14), Criteria Managers and Subject Matter Experts (GS13/14), Product Line Leader/Manager/Coordinator (GS14/15) for general Competency Assessment. • All Required Competency Assessments for Journey: Landscape Architect (GS12), Senior Landscape Architect (GS13), Landscape Architect Branch Managers/Supervisors (GS13). • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

C. Construction

I. Community Description

NAVFAC's Construction Product Line Community performs the critical task of ultimately delivering facilities to Supported Commanders and other clients safely, on time, within budget, and with the quality and performance characteristics required by the construction contract. This responsibility is aptly described as "Contract Management" or "Contract Administration," but as part of the NAVFAC Construction Product Line Community, it is typically referred to as "Construction Management."

Construction Management requires administrative, soft, and technical skillsets, such as estimating, scheduling, conflict management, and negotiating. However, one of the most critical functions in contract administration is known as "Quality Assurance" (QA), which is mandated by Federal Acquisition Regulation (FAR) 46.401. Due to the complexity and effort required, the administration of construction contracts is divided into two main responsibilities, i.e.

(1) Construction Management, which is performed by Construction Engineers or Construction Managers, and
(2) Construction Quality Assurance, which is typically performed by Construction Engineering Technicians.

Levels I and II construction community personnel typically reside at either a Facilities Engineering and Acquisition Division (FEAD), Resident Officer In Charge of Construction (ROICC), or Officer in Charge of Construction (OICC) field office. Expert Level construction community personnel typically reside at the Echelon IV Commands to coordinate technical issues, policies, processes, and resources. Additional Expert Level construction community personnel reside at NAVFAC Headquarters, NAVFAC Atlantic, and NAVFAC Pacific to provide strategic and operational guidance.

Construction Engineers and Construction Managers. Historically, NAVFAC's Construction Engineers have been referred to as "Construction Managers." However, NAVFAC has recently re-titled those Construction Managers with an engineering background as "Construction Engineers" to better align with Office of Personnel Management (OPM) classification standards for the General Schedule (GS) 0801 Interdisciplinary Engineer or GS 0808 Interdisciplinary Architect series. In addition, NAVFAC has developed standard position descriptions for Construction Managers (without an engineering background) within the OPM GS 301 series with the organizational title of "Construction Manager." ***Construction Engineers and Construction Managers have similar career paths, which may diverge with respect to education and/or at later phases.*** These similarities and differences are outlined in later sections.

Construction Engineering Technicians. Construction Engineering Technicians are typically hired within the GS 802.

Technical competencies of these functions are achieved through job experience, training, and education as shown below.

II. Community Vision

The NAVFAC construction community personnel are the trusted builders of critical facilities and infrastructure through partnerships with industry for the Department of Navy, Department of Defense, and other agencies that support National Security. The NAVFAC construction community will deliver uncompromised value, accuracy, and reliability to Supported Commanders and other customers through continuous process improvements in technical expertise, professionalism, efficiency, and effectiveness.

III. Community Structure: Senior Leadership Positions and Functional Areas

- Echelon II:
  - Construction Director (DC5), GS-0801/0808-15
  - Senior Construction Engineer, Process Leader, GS-0801/0808-14
- Echelon III:
  - Construction Director (DC5), GS-0801/0808-14
  - Senior Construction Engineer, GS-0801/0808-13
  - Construction Scheduler, GS-0301-13
  - Construction Engineer, GS-0801/0808-12
  - Construction Manager, GS-301-12
- Echelon IV:
  - Construction Director (DC5), GS-0801/0808-13/14
  - Senior Construction Engineer, GS-0801/0808-13
  - Senior Construction Manager, GS-0301-13
  - Construction Scheduler, GS-0301-13
  - Construction Engineer, GS-0801/0808-12
  - Construction Manager, GS-0301-12
  - Senior Construction Engineering Technician, GS-0802-12
- FEAD/ROICC/OICC:
  - Supervisory General Engineer, GS-0801/0808-13/14
  - Supervisory Construction Engineer, GS-0801/0808-13
  - Senior Construction Engineer, GS-0801/0808-13
  - Construction Engineer, GS-0801/0808-5/7/9/11/12
  - Senior Construction Manager, GS-0301-13
  - Construction Manager, GS-0301-5/7/9/11/12

Construction Engineer Workforce Progression Detail
Balanced Development:
Experiential Assignments, Self-directed, and Social Learning

C1. Construction Engineer:

Entry: Construction Engineer GS-5/7/9/11/12	
Technical Competencies	DC.1. Knowledge of basic engineering principles and construction methods DC.2. Ability to manage DB/DBB construction contracts as Contracting Officer's Representative (COR) DC.3. Ability to lead or actively participate in construction management meetings (pre-construction conference, post-award kickoff, quality assurance, etc.) DC.4. Knowledge of networks schedules, critical paths analysis, and software DC.5. Ability to interpret codes, criteria, and related practice guidance documents DC.6. Ability to conduct field investigations, measurements and associated calculations DC.7. Ability to apply construction quality assurance and acceptance tests DC.8. Knowledge and ability with the construction contract award process, e.g. Government Estimate (GE), and Technical Analysis (TA) in support of the Pre-negotiation Position (PNP) DC.9. Knowledge of requirements to obtain minimum Contracting Officer's Authorized Representative (COAR)/Contracting Officer's Representative (COR) authority (training and experience) DC.10. Ability to apply Construction Quality Management (CQM) concepts and Federal Acquisition Regulations related to inspection of construction, workmanship and materials, superintendence of construction, quality assurance, accident prevention, etc. DC.11. Basic knowledge of the components of eCMS such as RFIs, Submittals, and Daily Reports DC.12. Exhibits the utmost in Character qualities
Competency Source A: Education	• A bachelor's degree from an accredited (ABET or NAAB) university in Engineering or Architecture (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.12)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Meet regularly with mentor or supervisor (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.9, DC.10, DC.11, DC.12) • Rotational Assignments in Design and Project Management (DC.2) • Rotational Assignments in various levels of the Command – PMEB, ROICC, Echelon IV Core (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.9, DC.10, DC.11, DC.12)
Competency Source C: Training	• Construction CM Basic PDT (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.9, DC.10) • Construction Quality Management (CQM) (DC.1) • Schedule Training 101 and 201 (DC.4) • Construction Safety and Health Correspondence Course (EM-385) (DC.10) • CLC 106 – COR with a Mission focus (DC.9) • Financial Improvement and Audit Readiness (FIAR) training (DC.10) • ACQ 101/FE 101 (DC.2)
Competency Source D: Reading	• Construction Manager Handbook (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.9, DC.10, DC.11, DC.12) • EM-385 (DC.10)
Competency Source E: Industry Participation	• ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines***.
Competency Assessment: Credentials	• Engineer-in-Training (EIT) • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Journey: Construction Engineer (GS-12), Senior Construction Engineer (GS13)	
Technical Competencies	DC.13. Proficiency in engineering principles and construction methods DC.14. Proficiency in managing DB/DBB construction contracts as Contracting Officer's Representative (COR) DC.15. Ability to obtain advanced COAR authority by virtue of having fulfilled training and experience requirements DC.16. Proficiency in coordinating expertise from multiple disciplines and key project stakeholders, e.g. PM, DM, FEAD/ROICC, AE Designer of Record (DOR), PW, EV, AM, Contracting, other Communities and Customers as necessary DC.17. Ability to mitigate risks and resolve complex technical issues DC.18. Proficiency in quality assurance activities DC.19. Proficiency in managing activities in order to reduce cost, schedule, quality, safety, and compliance risks DC.20. Working knowledge of the Facilities Projects Manual, OPNAVINST 11010.20, the NAVFAC Design Build Master (NDBM) and the Whole Building Design Guide (WBDG) including a knowledge of the processes outlined in BMS DC.21. Knowledge of NAVFAC, Supported Commands, Navy Organization and doctrine DC.22. Knowledge and experience in managing office budgets DC.23. Ability to effectively participate in technical source selections DC.24. Working knowledge of the components of eCMS including RFIs, Submittals, Daily Reports, schedules and checklists DC.25. Exhibits the utmost in Character qualities
Competency Source A: Education	• A bachelor's degree from an accredited (ABET or NAAB) university in Engineering or Architecture (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Meet regularly with mentor or supervisor (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • Leadership Development Program (DC.21, DC.22, DC.23, DC.24, DC.25) • On-the-Job-Training (OJT)/On-the-Job-Experience (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level staff and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• FE 201 (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • Schedule Training 301 (DC.19) • Estimating for Construction Modifications (DC.19) • Negotiating Construction Contract Modifications (DC.19) • Introduction to ROICC/FEAD (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • CON 244 Construction Contracting (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • CON 216 Legal Consideration in Contracting (DC.14) • CTC 342 NAVFAC Contracting Officers Representative • CTC 415 Source Selection (TEB) (DC.14) • Fundamentals of Construction Partnering (DC.25)
Competency Source D: Reading	• Construction Manager Handbook (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • EM-385 (DC.19)
Competency Source E: Industry Participation	• ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines***.
Competency Assessment: Credentials	• Engineer-in-Training (EIT) • Professional Engineering (P.E.) or Registered Architect (R.A.) licensure • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Supervisory General Engineer (GS-13/14), Senior Construction Engineer (GS-14), Construction Director – Product Line Leader/Manager/Coordinator (GS13-15)	
Technical Competencies	DC.26. Expertise in leadership and management of the NAVFAC construction product line DC.27. Expertise in managing teams, resources/budgets, metrics, community management, policies and processes. DC.28. Expertise in achieving execution goals in balance with Command goals/construction standards. DC.29. Expertise in reviewing and adjusting, as necessary, Echelon IV workload (WIP) projections DC.30. Recognized as a construction expert and leader DC.31. Ability to visualize and conceive complex engineering procedures for the solution of complex engineering processes DC.32. Ability to interrelate with people from diverse engineering fields, create partnerships, and maximize talents for the good of the project, the supported Command and the Navy DC.33. Ability to organize and provide briefings on highly complex, one-of-a-kind, multi-discipline projects to higher authority and subordinates DC.34. Ability to evaluate diverse, complex, unique circumstances and alternatives and make effective decisions under uncertainty DC.35. High level skills in collaboration with multiple Community leadership, practitioners and subject matter experts (SME) on construction engineering/construction management DC.36. Recognized by the Command as an expert in results oriented construction engineering and management. DC.37. Expertise in career path development DC.38. Expertise in technology tools required for construction managers to be successful DC.39. In depth knowledge of the components of eCMS DC.40. Other competencies specific to the location and Command DC.41. Exhibits the utmost in Character qualities
Competency Source A: Education	• A bachelor's degree from an accredited (ABET or NAAB) university in Engineering or Architecture (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Experience in Design, Construction and Project Management with projects of varying complexity (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Experience in various levels of the Command – Supv. CE/CM, PMEB/SGE, Echelon IV Core (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Experience in other BLs, SLs, and OPS (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Oversee and lead multiple cross-functional teams to better understand all NAVFAC products and services to support future requirements (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Assignments of increasing/varied responsibility to broaden experience, strengthen contributions to the organization, and maximize professional development and competitiveness for future assignments (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Executive Leadership Development Program (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Federal Executive Institute (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Continue development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry and Journey Level staff and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• FE 301 (DC.10)
Competency Source D: Reading	• Construction Manager and SGE Handbook (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • EM-385 (DC.28)
Competency Source E: Industry Participation	• Partnering (DC.41) • Associated General Contractors (AGC) (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41)

Competency Assessment: Credentials	• Professional Engineering (P.E.) or Registered Architect (R.A.) licensure is required • CEs must obtain PE or RA licensure to be assigned responsible charge of subordinate engineers who are in the GS-08XX series • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

Construction Manager Workforce Progression Detail
Balanced Development:
Experiential Assignments, Self-directed, and Social Learning

C2. Construction Manager:

Entry: Construction Manager GS-5/7/9/11	
Technical Competencies	DC.1. Knowledge of basic engineering principles and construction methods DC.2. Ability to manage DB/DBB construction contracts as Contracting Officer's Representative (COR) DC.3. Ability to lead or actively participate in construction management meetings (pre-construction conference, post-award kickoff, quality assurance, etc.) DC.4. Knowledge of networks schedules, critical paths analysis, and software DC.5. Ability to interpret codes, criteria, and related practice guidance documents DC.6. Ability to conduct field investigations, measurements and associated calculations DC.7. Ability to apply construction quality assurance and acceptance tests DC.8. Knowledge and ability with the construction contract award process, e.g. Government Estimate (GE), and Technical Analysis (TA) in support of the Pre-negotiation Position (PNP) DC.9. Knowledge of requirements to obtain minimum Contracting Officer's Authorized Representative (COAR)/Contracting Officer's Representative (COR) authority (training and experience) DC.10. Ability to apply Construction Quality Management (CQM) concepts and Federal Acquisition Regulations related to inspection of construction, workmanship and materials, superintendence of construction, quality assurance, accident prevention, etc. DC.11. Basic knowledge of the components of eCMS such as RFIs, Submittals, and Daily Reports DC.12. Exhibits the utmost in Character qualities
Competency Source A: Education	• A bachelor's degree in Construction Management (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.12)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Meet regularly with mentor or supervisor (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.9, DC.10, DC.11, DC.12) • Rotational Assignments in Design and Project Management (DC.2) • Rotational Assignments in various levels of the Command – PMEB, ROICC, Echelon IV Core (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.9, DC.10, DC.11, DC.12)
Competency Source C: Training	• Construction CM Basic PDT (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.9, DC.10) • Construction Quality Management (CQM) (DC.1) • Schedule Training 101 and 201 (DC.4) • Construction Safety and Health Correspondence Course (EM-385) (DC.10) • CLC 106 – COR with a Mission focus (DC.9) • Financial Improvement and Audit Readiness (FIAR) training (DC.10) • ACQ 101/FE 101 (DC.2)
Competency Source D: Reading	• Construction Manager Handbook (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7, DC.8, DC.9, DC.10, DC.11, DC.12) • EM-385 (DC.10)
Competency Source E: Industry Participation	• ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines***.
Competency Assessment: Credentials	• Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Journey: Senior Construction Manager (GS-12) Supervisory Construction Manager (GS-12)	
Technical Competencies	DC.13. Proficiency in engineering principles and construction methods DC.14. Proficiency in managing DB/DBB construction contracts as Contracting Officer's Representative (COR) DC.15. Ability to obtain advanced COAR authority by virtue of having fulfilled training and experience requirements DC.16. Proficiency in coordinating expertise from multiple disciplines and key project stakeholders, e.g. PM, DM, FEAD/ROICC, AE Designer of Record (DOR), PW, EV, AM, Contracting, other Communities and Customers as necessary DC.17. Ability to mitigate risks and resolve complex technical issues DC.18. Proficiency in quality assurance activities DC.19. Proficiency in managing activities in order to reduce cost, schedule, quality, safety, and compliance risks DC.20. Working knowledge of the Facilities Projects Manual, OPNAVINST 11010.20, the NAVFAC Design Build Master (NDBM) and the Whole Building Design Guide (WBDG) including a knowledge of the processes outlined in BMS DC.21. Knowledge of NAVFAC, Supported Commands, Navy Organization and doctrine DC.22. Knowledge and experience in managing office budgets DC.23. Ability to effectively participate in technical source selections DC.24. Working knowledge of the components of eCMS including RFIs, Submittals, Daily Reports, schedules and checklists DC.25. Exhibits the utmost in Character qualities
Competency Source A: Education	• A bachelor's degree in Construction Management (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Meet regularly with mentor or supervisor (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • Leadership Development Program (DC.21, DC.22, DC.23, DC.24, DC.25) • On-the-Job-Training (OJT)/On-the-Job-Experience (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry staff and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• FE 201 (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • Schedule Training 301 (DC.19) • Estimating for Construction Modifications (DC.19) • Negotiating Construction Contract Modifications (DC.19) • Introduction to ROICC/FEAD (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • CON 244 Construction Contracting (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • CON 216 Legal Consideration in Contracting (DC.14) • CTC 342 NAVFAC Contracting Officers Representative • CTC 415 Source Selection (TEB) (DC.14) • Fundamentals of Construction Partnering (DC.25)
Competency Source D: Reading	• Construction Manager Handbook (DC.13, DC.14, DC.15, DC.16, DC.17, DC.18, DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25) • EM-385 (DC.19)
Competency Source E: Industry Participation	• ***Refer to NAVFAC Engineering and Architecture Community Management Framework and Certification Guidelines***.
Competency Assessment: Credentials	• Certified Construction Manager accreditation is preferred • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points

Expert: Senior Construction Manager (GS-13) Supervisory Construction Manager (GS-13)	
Technical Competencies	DC.26. Expertise in leadership and management of the NAVFAC construction product line DC.27. Expertise in managing teams, resources/budgets, metrics, community management, policies and processes. DC.28. Expertise in achieving execution goals in balance with Command goals/construction standards. DC.29. Expertise in reviewing and adjusting, as necessary, Echelon IV workload (WIP) projections DC.30. Recognized as a construction expert and leader DC.31. Ability to visualize and conceive complex engineering procedures for the solution of complex engineering processes DC.32. Ability to interrelate with people from diverse engineering fields, create partnerships, and maximize talents for the good of the project, the supported Command and the Navy DC.33. Ability to organize and provide briefings on highly complex, one-of-a-kind, multi-discipline projects to higher authority and subordinates DC.34. Ability to evaluate diverse, complex, unique circumstances and alternatives and make effective decisions under uncertainty DC.35. High level skills in collaboration with multiple Community leadership, practitioners and subject matter experts (SME) on construction engineering/construction management DC.36. Recognized by the Command as an expert in results oriented construction engineering and management. DC.37. Expertise in career path development DC.38. Expertise in technology tools required for construction managers to be successful DC.39. In depth knowledge of the components of eCMS DC.40. Other competencies specific to the location and Command DC.41. Exhibits the utmost in Character qualities
Competency Source A: Education	**Construction Manager** • A bachelor's degree in Construction Management (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Experience in Design, Construction and Project Management with projects of varying complexity (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Experience in various levels of the Command – Supv. CE/CM, PMEB/SGE, Echelon IV Core (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Experience in other BLs, SLs, and OPS (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Oversee and lead multiple cross-functional teams to better understand all NAVFAC products and services to support future requirements (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Assignments of increasing/varied responsibility to broaden experience, strengthen contributions to the organization, and maximize professional development and competitiveness for future assignments (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Executive Leadership Development Program (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • Federal Executive Institute (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41)
Competency Source C: Training	• FE 301 (DC.10)
Competency Source D: Reading	• Construction Manager and SGE Handbook (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41) • EM-385 (DC.28)
Competency Source E: Industry Participation	• Partnering (DC.41) • Associated General Contractors (AGC) (DC.26, DC.27, DC.28. DC.29, DC.30, DC.31, DC.32, DC.33, DC.34, DC.35, DC.36, DC.37, DC38, DC.39, DC.40, DC.41)
Competency Assessment: Credentials	• CMs must obtain professional licensure as a Certified Construction Manager (CCM) to be assigned responsible charge of subordinate CM (non-engineers) or as a team lead (at the GS-13 level) of other non-subordinate CMs • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

The proficiency scale shown in Table 1 below is an instrument used to measure one's ability to demonstrate a competency on the job. The scale captures a wide range of abilities and organizes them from Level 1 (awareness) to Level 5 (expert). The proficiency scale may be applied against each competency to compare current levels of proficiency against levels required for the various positions within a Career Segment (Associate, Journey, and Expert). While the competencies for positions within a career segment are the same, the proficiency required increases as an individual moves up the career ladder taking on positions with greater responsibility, authority, and grade (Refer to Proficiency Map, Table 2 for senior-level positions). For additional information, refer to the NAVFAC Definitions and Proficiency Scales located in the NAVFAC Community Management Framework.

Proficiency Scale	
1. Awareness	Limited Experience or knowledge is required in this competence
2. Basic	Some knowledge and experience of this competence is required
3. Intermediate	This competence needs to be demonstrated though may only be partially demonstrated and could be performed under supervision
4. Advanced	Full competency is required supported by knowledge and experience
5. Expert	Full competency supported by deep knowledge and broad experience; the individual is likely to be regarded as a thought leader

Table 1 Proficiency Scale

Career Segment Position	Required Proficiency
Senior CE, Senior CM, Construction Scheduler	Advanced
Echelon III/IV Construction Directors, Sr. CE Process Owners & SGE (GS-14)	Advanced/Expert
Echelon II Construction Director (GS-15)	Expert

Table 2 Proficiency Map

Construction Engineering Technician Workforce Progression Detail
Balanced Development:
Experiential Assignments, Self-directed, and Social Learning

C.3 Construction Engineering Technician:

Entry: Construction Engineering Technician GS5-GS6	
Technical Competencies	DC.1. Knowledge of basic Construction Quality Management (CQM) concepts, including quality assurance and quality control processes, standard procedures and contract requirements. DC.2. Knowledge of basic codes, criteria, and related practice guidance documents DC.3. Familiarity with basic Quality Verification (QV) areas, e.g. mechanical/HVAC, electrical, plumbing, roofing, concrete, steelwork, architectural pavement, fire protection, insulation, waterproofing, etc. DC.4. Knowledge of accident prevention standards, plans, procedures, and documentation required by USACE EM-385-1-1 and OSHA, including the ability to recognize and mitigate safety hazards DC.5. Familiarity with field investigations, measurements and associated calculations DC.6. Ability to collaborate with other team members and key stakeholders DC.7. Exhibits the utmost in Character qualities
Competency Source A: Education	• N/A
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Rotational assignments within the PWD or ROICC (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7) • Develop mentoring relationship with experienced staff, meet to discuss interests & explore options for professional development
Competency Source C: Training	• NAVFAC DC Construction ET Basic Training Module (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7) • Scheduling Training – 101 (DC.1) • Introduction to Quality Verification (DC.3)
Competency Source D: Reading	• Construction ET Handbook (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7) • EM-385 (DC.4) • Specialty Publications (DC.1, DC.2, DC.3, DC.4, DC.5, DC.6, DC.7)
Competency Source E: Industry Participation	• N/A
Competency Assessment: Credentials	• NICET certifications (concrete, soils, fire alarms, electrical, etc.) is preferred • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points

Journey: Construction Engineering Technician GS7-GS11	
Technical Competencies	DC.8. Proficiency in engineering principles and construction methods DC.9. Proficiency in managing DB/DBB construction contracts as Contracting Officer's Representative (COR) DC.10. Proficiency in coordinating expertise from multiple disciplines and key project stakeholders, e.g. PM, DM, FEAD/ROICC, AE Designer of Record (DOR), PW, EV, AM, Contracting, other Communities and Customers as necessary DC.11. Ability to mitigate risks and resolve complex technical issues DC.12. Proficiency in quality assurance activities DC.13. Proficiency in managing activities in order to reduce cost, schedule, quality, safety, and compliance risks DC.14. Working knowledge of the Facilities Projects Manual, OPNAVINST 11010.20, the NDBM and the WBDG including a knowledge of the processes outlined in BMS DC.15. Knowledge of NAVFAC, Supported Commands, Navy Organization and doctrine DC.16. Knowledge and experience in managing office budgets DC.17. Ability to effectively participate in technical source selections DC.18. Exhibits the utmost in Character qualities
Competency Source A: Education	• N/A
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Rotational assignments in various levels of the Command – CM, ROICC, Echelon IV Core (DC.8, DC.9, DC.10, DC.11, DC.12, DC.13, DC.14, DC.15, DC.16, DC.17, DC.18) • Rotational assignments in other BLs, SLs or OPS (DC.8, DC.9, DC.10, DC.11, DC.12, DC.13, DC.14, DC.15, DC.16, DC.17, DC.18)
Competency Source C: Training	• Construction Quality Management (CQM) for Contractors (DC.8) • Construction Safety & Health Correspondence (EM-385) (DC.13) • Contractor Crane Awareness (DC.13) • Hazard Awareness (e.g. asbestos, lead, confined space) (DC.18) • Quality Verification (DC.13) • NAVFAC Partnering (DC.18)
Competency Source D: Reading	• Construction ET Handbook (DC.8, DC.9, DC.10, DC.11, DC.12, DC.13, DC.14, DC.15, DC.16, DC.17, DC.18) • EM-385 (DC.13) • Specialty Publications (DC.8, DC.9, DC.10, DC.11, DC.12, DC.13, DC.14, DC.15, DC.16, DC.17, DC.18)
Competency Source E: Industry Participation	• N/A
Competency Assessment: Credentials	• CMIT (CM-In-Training) • NICET certifications (concrete, soils, fire alarms, electrical, etc.) is preferred • Certified at DAWIA FE Career Field Level I and current with Continuous Learning Points.

Expert: Senior Construction Engineering Technician (GS-12)	
Technical Competencies	DC.19. Expertise in Construction Quality Management (CQM) concepts, including quality assurance and quality control processes, standard procedures and contract requirements. DC.20. Proficient knowledge in the application of codes, criteria, and related practice guidance documents DC.21. Expertise in conducting Quality Verification (QV) of mechanical/HVAC, electrical, plumbing, roofing, concrete, steelwork, architectural pavement, fire protection, insulation, waterproofing, etc. DC.22. Expertise in accident prevention standards, plans, procedures, and documentation required by USACE EM-385-1-1 and OSHA, including the ability to recognize and mitigate safety hazards DC.23. Ability to collaborate with other team members and key stakeholders DC.24. Ability to conduct field investigations, measurements and associated calculations DC.25. Ability to convey and teach construction quality management, construction safety, and construction technical support competency elements to developmental and intermediate ETs and construction managers. Ability to coach and mentor staff to facilitate their development to the Journey level. DC.26. Ability to assess the workload of staff construction ET and assist in the prioritization of actions to maximize effective use of staff resources. DC.27. Ability to determine adequacy and thoroughness of APP/AHAs, identifying safety requirements to mitigate high-risk construction operations (trenching, high work, crane activities, and confined spaces), and ability recommend corrective actions. DC.28. Exhibits the utmost in Character qualities
Competency Source A: Education	• N/A
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Experience in various levels of the Command – PMEB, ROICC, Echelon IV Core (DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25, DC.26, DC.27, DC.28) • Rotational assignments in other BLs, SLs or OPS (DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25, DC.26, DC.27, DC.28)
Competency Source C: Training	• Introduction to Public Works Dept & Echelon IV Operations (DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25, DC.26, DC.27, DC.28) • FE 201 (DC.20)
Competency Source D: Reading	• Construction ET Handbook (DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25, DC.26, DC.27, DC.28) • EM-385 (DC.22) • Specialty Publications (DC.19, DC.20, DC.21, DC.22, DC.23, DC.24, DC.25, DC.26, DC.27, DC.28)
Competency Source E: Industry Participation	• N/A
Competency Assessment: Credentials	• CMIT (CM-In-Training) • NICET certifications (concrete, soils, fire alarms, electrical, etc.) is preferred • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

D. Project and Program Management

Project and Program Management careers draw from similar foundational competencies, which is why they are included within the same section of this Community Management Plan. The natural career progression for a Project Manager is to manage bigger, more complex, critical, and high visibility projects and then to progress into Program Management once mastering these project management competencies. While including these professions in the same section, they each have a dedicated sub-section, because becoming a Program Manager is a significant career change that does require mastery of additional competencies.

Programs are not just big projects, and managing projects and programs have distinctly different focuses.

- Successful project managers focus on *on-time* and *on-budget* delivery whereas a program manager's focus is on delivering benefits. When managing programs, benefits and value are the focus instead of budget.
- A project managers' focus is on optimizing delivery of a single deliverable while program managers focus on integration of multiple project deliveries and ensuring overarching benefits are being achieved.
- Stakeholder management in program management is far more complex while project managers are typically working within a more constrained stakeholder framework.
- Risk management within the context of a project is typically far more definable while risk management within a program is more open-ended and potentially heavily-influenced by external factors.

D1. Project Management

I. Community Description:

Naval Facilities Engineering Systems Command (NAVFAC) executes diverse projects around the globe in support of the warfighter. Project execution and mission accomplishment depend upon highly qualified project teams, led and managed by highly competent Project Managers (PM). PMs are responsible for successful delivery of a project through effective management of project scope, cost, schedule and quality. This is accomplished through implementation of a PM's knowledge in the following areas: Project Integration Management, Project Scope Management, Project Schedule Management, Project Cost Management, Project Quality Management, Project Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management, and Project Stakeholder Management. Since the PM is responsible for the coordination and integration of several NAVFAC products and services (P&S), project integration management is a key knowledge area and skill for the PM.

II. Community Competency

Project Manager foundational competency is addressed in greater detail in the NAVFAC Project Manager Community Management Framework (PM CMF). The PM CMF establishes five elements of PM Competency:

1. Personal → Section II - NAVFAC Community Management Framework
2. Knowledge
3. Performance → NAVFAC PM Community Management Framework Section III
4. Organizational
5. Industry Specific & Technical → DC PM Community Management Plan Section IV

As indicated above, the Personal Competency is addressed in Section II of the NAVFAC Community Management Framework; the Knowledge, Performance, and Organizational Competencies are addressed in Section III, the NAVFAC PM Community Management Framework; and the Industry Specific & Technical Competency is addressed in Section IV, the Design and Construction PM Community Management Plan.

III. Community Structure: Senior Leadership Positions and Functional Areas

- Echelon II:
  - Project Management Technical Discipline Leader (TDL), GS-0801/0808-15
  - Criteria Manager, GS-0801-0804-0808-0810-0830-0850-14
  - Medical Facilities Program Office (MFPO) Project Manager GS-0801-0808-0810-0830-0850-14
- Echelon III:
  - Project Management Branch Head (DC2) / Technical Discipline Manager (TDM), GS-0801/0808-14
  - Mega-Project Project Manager, GS-0801/0808-14
  - Supervisory Mega-Project Project Manager, GS-0801/0808-14
  - Senior Project Manager, GS-0801/0808-13
  - Project Manager, GS-0801/0808-12
  - Associate Project Manager, GS-0801/0808-12 (no PE/RA)
- Echelon IV:
  - Project Management Technical Discipline Coordinator (TDC), GS-0801/0808-13
  - Mega-Project Project Manager, GS-0801/0808-14
  - Supervisory Mega-Project Project Manager, GS-0801/0808-14
  - Supervisory Project Manager, GS-0801/0808-13
  - Senior Project Manager, GS-0801/0808-13

- Project Manager, GS-0801/0808-12
- Associate Project Manager, GS-0801/0808-12 (no PE/RA)

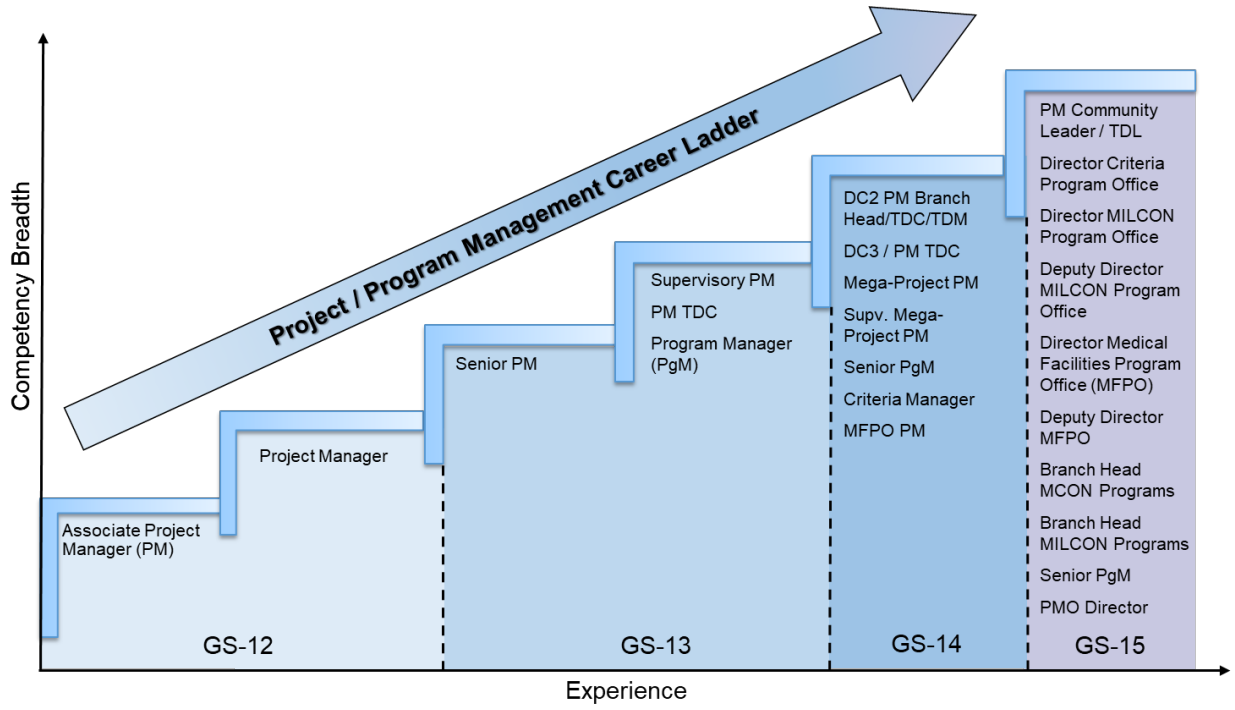


Figure 1. Project / Program Management Career Ladder

For the Design and Construction Business Line, PM technical expertise in facility and/or construction engineering is foundational and therefore all PMs should have significant experience in these areas. This experience is demonstrated through professional registration as a Professional Engineer (PE) or Registered Architect (RA). It is possible to be an Associate Project Manager without professional registration; however, it is required in order to progress in the Project Management career field. As shown in Figure 1, as a Project Manager grows in experience, mentoring and supervisory opportunities as well as opportunities to manage larger, more complex projects may be added. As the PM's competency breadth increases, these experiences can lead to opportunities in PM Leadership and Program Management. The PM skillset and competency is highly valued within NAVFAC and easily translates into opportunities across the various NAVFAC Communities.

The Associate PM and PM (GS-0801/0808-12) work under the guidance of Senior PMs. They serve as a liaison and bridge between external clients, Operations, and other NAVAC Communities and DC Product Line Coordinators (PLC) and key Design and Construction Product Line Staff. They are routinely accompanied or otherwise supported by the PM supervisor or Senior PM. While Professional Registration is encouraged and preferred, it is not required for the Associate PM. As the PM at this level gains experience and becomes registered,

mentoring and supervisory responsibilities may be added. Since the Associate PM does not have professional registration, they cannot participate or chair Technical Evaluation Teams. Associate PMs and PMs should strive to achieve Level II certification in accordance with the NAVFAC PM CMF.

The Senior PM (GS-0801/0808-13) works independently and takes all required actions through personal initiative on all design and construction projects at assigned activities. The incumbent is required to be a registered Professional Engineer (PE) or Registered Architect (RA). The level of independence required at the Senior PM (GS-0801/0808-13) level covers the following areas, but is not necessarily limited to those noted: communications (internal and external); facilitation and mediation; conflict resolution; business integration, briefings at all appropriate and necessary levels; experience with large and complex projects; and, mentoring junior and prospective PMs and supervision of assigned PMs. Senior PMs should strive to achieve Level III certification in accordance with the NAVFAC PM CMF.

The Supervisory PM (GS-0801/0808-13/14) and Supervisory Mega-Project PM lead a team of Project Managers. They coordinate the daily workload of PMs and Senior PMs, ensuring that projects are managed to meet execution, financial and project goals. Their focus is to ensure that projects are fully coordinated and managed to meet high project management standards. The incumbent is required to be a PE or RA and will demonstrate expertise in the following areas, although not necessarily limited to those noted: communications (internal and external); facilitation and mediation; conflict resolution; business integration, briefings at all appropriate and necessary levels; experience with large and complex projects; and, mentoring junior and prospective PMs. In addition to supervisory responsibilities, PM Supervisors and Supervisory Mega-Project PMs also manage NAVFAC's larger and more complex projects. Supervisory PMs should strive to achieve Level III certification in accordance with the NAVFAC PM CMF. Supervisory Mega-Project PMs should strive to achieve Level IV certification in accordance with the NAVFAC PM CMF.

The Project Management Technical Discipline Coordinator (PM TDC) (GS-0801/0808-13) is a technical leadership and management position. The PM TDC is considered the Authority for Project Management at the Echelon IV and has learned through experience all of the professional competencies required of an Advanced and Senior Level PM. The TDC will serve as the expert at the Echelon IV for project management and will lead consistent project delivery of DC products and services. The TDC is responsible for the project management community within the Echelon IV in coordination with the PM Technical Discipline Leader/Manager (TDL/M) and will serve as the Echelon IV lead coordinating the development of PM professionals. The TDC is heavily involved with coordination of training and development of Project Managers at the Echelon IV and in the sustainment of CI's Project Management Manual. The TDC will work with the TDL/M on activities within the discipline community including community management, common business practices, Subject Matter Expert (SME) support and issues of

interest. Support for criteria/BMS issues assigned by the TDL/M will be provided. The TDC is required to be a PE or RA. The PM TDC should strive to achieve Level III certification in accordance with the NAVFAC PM CMF.

The Mega-Project PM (GS-0801/0808-4) is a project management Subject Matter Expert (SME) and is assigned to NAVFAC Mega-Projects. Mega-Projects are unique, one-of-a-kind, complex projects typically with a normalized project cost greater than $100M. The Mega-Project PM works independently and takes all required actions through personal initiative on all project activities. The incumbent is required to be a registered Professional Engineer (PE) or Registered Architect (RA). The level of independence required at the Mega-Project PM (GS-08XX-14) level covers the following areas, but is not necessarily limited to those noted: communications (internal and external); facilitation and mediation; conflict resolution; project and product integration; business integration, briefings at all appropriate and necessary levels to include Senior briefings at the SES/Flag level; experience with large and complex projects; and, mentoring junior and prospective PMs. Mega-Project PMs should strive to achieve Level IV certification in accordance with the NAVFAC PM CMF.

The Project Management Technical Discipline Leader/Manager/Coordinator (TDL/M/C) (GS-0801/0808-13/14/15) is a technical expert leadership position with responsibilities at the Echelon II/III/IV level respectively. At the Echelon III and IV, these individuals manage the community as TDM/Cs and are also responsible for the execution of projects. These individuals are acknowledged discipline experts responsible for bringing the larger discipline community together both professionally and for community management execution. Each Echelon III Command will have a TDM, who is also the DC2 and Supervisory Project Manager for execution of DC products and services at the Echelon III. Full competency in project management plus an understanding and appreciation of other disciplines is mandatory. The DC2 TDL/M/C demonstrates excellent leadership, team building and communication skills. Collaboration with practitioners and SMEs is an essential aspect of this position, ensuring that all discipline professionals will have the best opportunity to develop and grow. The DC2 TDL/M/C will maintain SME contacts and ensure that all discipline members have access to the full range of professional contacts required to support the design and execution of NAVFAC projects. The DC2 TDL/M/C will analyze and assess the distribution of expertise throughout the Echelon III and IV organizations and ensure that each design organization has the necessary skill set to deliver competent engineering products and services expertise. The DC2 TDL/M/C will work to provide community management and training as required and will lead the maintenance, sustainment and future development of the CI Project Management Manual. Analysis and support for technology tools and project management e-Systems along with criteria support is included in the TDL/M/C responsibilities. The TDL/M/C is required to be a PE or RA. The DC2 should strive to achieve Level IV certification in accordance with the NAVFAC PM CMF.

IV. Design and Construction Project Management - Workforce Progression Detail
Balanced Development:
Experiential Assignments, Self-directed, and Social Learning

Entry: N/A **GS1-11**	
Refer to the NAVFAC Engineering and Architect Community Management Framework and the Design and Engineering and Construction Community Management Competencies of the Design and Construction Community Management Plan	
Journey: Associate Project Manager / Project Manager **GS12**	
Industry Specific & Technical Competencies	**DC1**: To lead and interact with others according to Command Character Principles **DC2**: To effectively execute projects through experience and understanding of the Design and or/Construction Management Process **DC3**: To execute and manage project design phase through application of technical knowledge of multiple engineering disciplines or numerous diverse engineering specialty areas within a discipline **DC4**: To manage project execution through the use of scheduling software (MS Project) and project information system (eProjects) **DC5**: To apply knowledge of Building Codes and Standards, United Facilities Criteria (UFC), and United Facilities Guide Specifications (UFGS) **DC6**: To apply Sustainability requirements (including 3rd Party Certification) to project delivery **DC7**: To execute and incorporate Design Charrettes and Functional Analysis and Concept Development (FACD) into project design **DC8**: To participate as a Technical Evaluation Team (TET) member **DC9**: To apply knowledge of Acquisition/Contract Management (A/E, Multiple Award Construction Contracts (MACC), etc.) contract vehicles in order to choose and manage the one best suited for the requirement. **DC10**: To deliver projects using the project management framework outlined in the NAVFAC Memorandums, NAVFAC Capital Improvements Project Management Manual and NAVFAC BMS **DC11**: To deliver projects meeting NEPA and other environmental requirements **DC12**: To deliver projects applying knowledge of work classification, construction and repair, and Facilities Projects

	Manual OPNAVINST 11010.20H in. **DC13**: To deliver project program documentation (DD1391) through the PRI#0, PRI#1, and PRI#2 phases in accordance with FC 1-300-09N, NAVFAC Instructions, Consistency Review Board Guidelines, and OSD requirements **DC14:** To effectively apply new technologies and processes from current industry partners **DC15:** Exhibits the utmost in Character qualities
Competency Source A: Education	• A bachelor's degree from an accredited (ABET or NAAB) university in Engineering or Architecture (DC2, DC3)
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Meet regularly with a Discipline mentor or supervisor to review design concepts and strategies (DC2, DC3, DC5) • Rotational assignment as Designer, Construction Manager, and/or Cost Engineer (DC2, DC3, DC5) • Rotational Assignment with CI3 as Program Manager (DC9) • Rotational Assignment with EVBL (DC11) • Rotational Assignment with AMBL (DC12, DC13) • Review of plans and specifications prepared by an A/E for 5 different facility types (DC2, DC3, DC5)
Competency Source C: Training	• Microsoft Project Essential Training (DC4) • eProjects 101 (DC4) • CI PM Manual Overview (DC10) • Using the BMS (DC10)
Competency Source D: Reading	• NEPA Law (DC11) • Facilities Projects Manual OPNAVINST 11010.20H (DC12) • CI Project Management Manual (DC12) • International Building Code (Current Version), UFC 1-300-09N Design Procedures, UFC 1-200-01 DoD Building Code (DC2, DC3, DC5) • Project Management Institute, A Guide to the Project Management Body of Knowledge, PMBOK Guide (Current Version)(DC10) • Business Management System (DC12) – B-1.2 Project Initiation – B-1.4 Design Build – B-1.5 Design Bid Build – B-11.3.2 Preliminary Design Authority Process – B-11.5.2 Final Solicitation Document Design Authority – B-12.3 Design-in-Place Management – B-12.6 Project Management Resourcing
Competency Source E: Industry Participation	• American Consulting Engineers Council (ACEC)(DC14) • National Society of Professional Engineers (NSPE)(DC14) • Association of General Contractors (AGC)(DC14) • Project Management Institute (PMI)(DC14)

Competency Assessment: Certifications & Credentials	• Registration as Professional Engineer (PE) or Registered Architect (RA) is preferred at the GS12 level. • Registration as Professional Engineer (PE) or Registered Architect (RA) is required at the GS13 level. • NAVFAC Project Manager Certification Level I and II (Refer to NAVFAC Project Manager Community Management Framework) are preferred for the Associate Project Manager and Project Manager. • Certified at DAWIA FE Career Field Level II and current with Continuous Learning Points.

Expert: Senior PM (GS13) / Supervisory PM (GS13)/ PM Technical Discipline Coordinator (GS13) / Mega-Project PM (GS14) / Supervisory Mega-Project PM (GS14) / PM Branch Head, Technical Discipline Coordinator or Manager (GS14) / Project Management Leader (GS15) GS13-15	
Industry Specific & Technical	All competencies at the Associate and Journey PM Levels **DC15:** To participate and serve as a Technical Evaluation Team (TET) member and chair **DC16:** To contribute and develop content for Project Management processes in CI Project Management Manual and NAVFAC BMS **DC17:** To manage large, complex, Mega-Projects **DC18:** To visualize and conceive complex engineering procedures for the solution of complex engineering processes **DC19:** To mentor project managers at all levels to facilitate both their professional and project success. **DC20:** To provide high level briefings on highly complex, one-of-a-kind, multi-discipline projects to higher authority inside and outside of NAVFAC **DC21:** To develop training and provide community management to project management community of practice **DC22:** To develop and use project management resourcing tools for project management community of practice **DC23:** To work with agencies outside of NAVFAC to provide Project Management guidance and expertise **DC24:** To effectively integrate new technologies and processes from current industry partners into standard NAVFAC processes **DC25:** Exhibits the utmost in Character qualities
Competency Source A: Education	• A bachelor's degree from an accredited (ABET or NAAB) university in Engineering or Architecture
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Meet regularly with a Discipline mentor or supervisor to review design concepts and strategies (DC2, DC3, DC5) • Rotational assignments with Echelon II MILCON. • Rotational assignments with CNIC, OPNAV or OSD (DC23) • Rotational assignments with AMBL (DC12, DC13) • Rotational assignments with EVBL (DC11)
Competency Source C: Training	• Microsoft Project Advanced Training (DC4) • CECOS Introduction to Environmental Law (DC11) • Financial Management Basics (DC10) • MILCON Installation DD1391 (DC10)
Competency Source D: Reading	• All reading required at the Associate PM and PM level • B-12.6 Project Management Resourcing (DC22)

Competency Source E: Industry Participation	• American Consulting Engineers Council (ACEC)(DC14, DC24) • National Society of Professional Engineers (NSPE)(DC14, DC24) • Association of General Contractors (AGC)(DC14, DC24) • Project Management Institute (PMI)(DC14, DC24)
Competency Assessment: Certifications & Credentials	• Registration as Professional Engineer (PE) or Registered Architect (RA) is required at the GS13, 14, and 15 level. • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points. • NAVFAC Project Manager Certification Level III (Refer to NAVFAC PM CMF) is preferred for the Senior PM, Supervisory PM, and PM TDC. • NAVFAC Project Manager Certification Level IV (Refer to NAVFAC PM CMF) is preferred for the Mega-Project PM, Supervisory Mega-Project PM, and DC2 PM Branch Head.

The proficiency scale shown in Table 1 below is an instrument used to measure one's ability to demonstrate a competency on the job. The scale captures a wide range of abilities and organizes them from Level 1 (awareness) to Level 5 (expert). The proficiency scale may be applied against each competency to compare current levels of proficiency against levels required for the various positions within a Career Segment (Associate, Journey, Expert). While the competencies for positions within a career segment are the same, the proficiency required increases as an individual moves up the career ladder taking on positions with greater responsibility, authority, and grade (Refer to Proficiency Map, Table 2). For additional information refer to the NAVFAC Definitions and Proficiency Scales.

Proficiency Scale	
1. Awareness	Limited Experience or knowledge is required in this competence
2. Basic	Some knowledge and experience of this competence is required
3. Intermediate	This competence needs to be demonstrated though may only be partially demonstrated and could be performed under supervision
4. Advanced	Full competency is required supported by knowledge and experience
5. Expert	Full competency supported by deep knowledge and broad experience; the individual is likely to be regarded as a thought leader

Table 1. Proficiency Scale

Career Segment Position	Required Proficiency
Senior PM	Intermediate/Advanced.
Supervisory PM, PM TDC	Advanced
Criteria Project Management, MFPO Project Manager, Mega-Project PM, Supervisory Mega-Project PM, PM Branch Head (CI2), PM TDC/M, Project Management TDL	Expert

Table 2. Proficiency Map

D2. Program Management

I. Community Description:

NAVFAC executes diverse projects around the globe in support of the warfighter. These projects are part of programs that are managed by NAVFAC Program Managers (PgM) who ensure effective alignment, integration, and control of a program's projects, subsidiary programs, and other program activities. PgMs minimize risk and maximize opportunities for project and program success through effective program strategy alignment, benefits management, stakeholder engagement, program governance, and life cycle management. PgMs apply program management principles to ensure that programs and their components are appropriately planned, controlled, and completed, and that program benefits are appropriately delivered and sustained.

II. Community Competency

Program Manager Competency is addressed in the NAVFAC Project Manager Community Management Framework (PM CMF). The PM CMF addresses five elements of PM Competency that also apply to the PgM:

1. Personal → Section II - NAVFAC Community Management Framework
2. Knowledge
3. Performance → NAVFAC PM Community Management Framework Section III
4. Organizational
5. Industry Specific & Technical → DC PgM Community Management Plan Section IV

As indicated above, the Personal Competency is addressed in Section II of the NAVFAC Community Management Framework; the Knowledge, Performance, and Organizational Competencies are addressed in Section III, the NAVFAC PM Community Management Framework; while, the Industry Specific & Technical Competency are addressed in Section IV, the Design and Construction PgM Community Management Plan.

III. Community Structure: Senior Leadership Positions and Functional Areas

- Echelon II:
  - Director, MILCON Program Office, GS-0801/0808-15
  - Deputy Director, MILCON Program Office, GS-0801/0808-15
  - Branch Head, MCON Programs, GS-0801/0808-15
  - Branch Head, MILCON Programs, GS-0801/0808-15

- Director, Medical Facilities Program Office, GS-0801/0808-15
- Deputy Director, Medical Facilities Program Office, GS-0801/0808-15
- Director, Criteria Program Office, GS-0801/0808-15
- Senior MILCON PgM, GS-0801/0808-14

- Echelon III:
  - Senior MILCON PgM, GS-0801/0808-14
  - MILCON PgM, GS-0801/0808-13
  - Senior PgM, GS-0801-0808-14
  - PgM, GS-0801-0808-13

- Echelon IV:
  - Senior MILCON PgM, GS-0801/0808-14
  - MILCON PgM, GS-0801/0808-13
  - Senior PgM, GS-0801-0808-14
  - PgM, GS-0801-0808-13

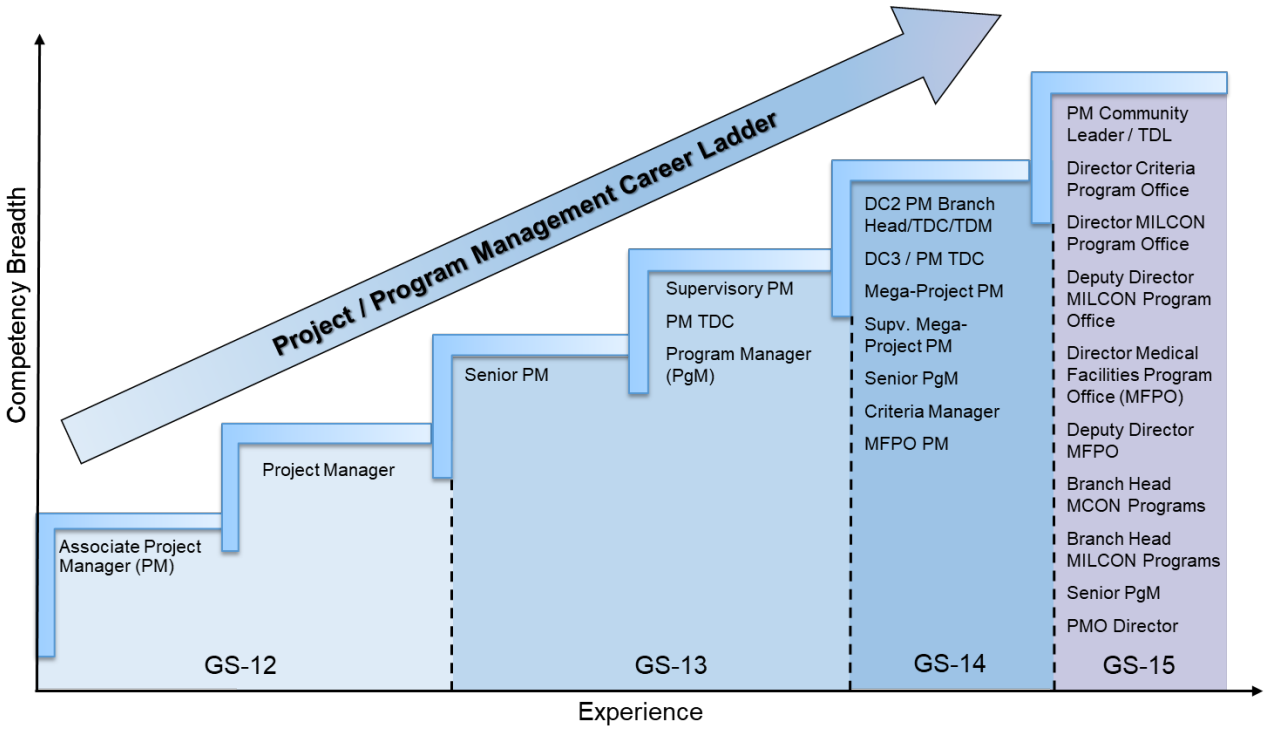


Figure 2. Project / Program Management Career Ladder

Program Management is a natural career progression from Project Management. As such, PM competency, as described in the NAVFAC PM Community Management Framework and technical expertise in facility and/or construction engineering is foundational for PgMs and therefore all PgMs should have significant experience in these areas. Technical competency is

demonstrated through professional registration as a Professional Engineer (PE) or Registered Architect (RA). Program Managers are required to have professional registration. As shown in Figure 2, as a Project Manager grows in experience, mentoring and supervisory opportunities as well as opportunities to manage larger, more complex projects may be added. As the PM's competency breadth increases, these experiences can lead to opportunities in PM Leadership and Program Management. The PgM skillset and competency is highly valued within NAVFAC and easily translates into opportunities across the various NAVFAC Communities and Business Lines.

MILCON Program Managers (MILCON PgMs) are responsible for oversight of all military construction projects funded from appropriations provided by a Military Construction and Veterans Affairs and Related Agencies Appropriation Act or comparable legislation (commonly referred to as MILCON appropriation). This includes MILCON projects for the USN (Navy "Blue"), USMC (Marine Corps "Green"), and other defense agencies (such as Air Force, Special Operations Command, and Defense Logistics Agency) for which NAVFAC is the execution agent.

There are two levels of Military Construction (MILCON) Program Manager (PgM): Program Manager and Senior Program Manager. The knowledge and skills gained at the Basic level in the Design and Construction career paths provide foundational competencies and skills required for entry into Program Management. Additionally, the DC Project Manager (PM) career path provides the competencies, skills development, and experience needed for MILCON Program Management. The distinction between a MILCON Program Manager, Senior Program Manager, MILCON Branch Head and MILCON Director is the magnitude and complexity of the program(s) managed with the associated experience gained, professional registration, and the mentoring/supervising of the less experienced MILCON PgMs.

The MILCON PgM (GS-0801/0808-13) works with oversight and direction from the expert level Senior MILCON PgM to support and champion the project development, programming, budgeting, and execution of projects grouped into a program (generally based on geographical location or client). The MILCON PgM serves as a liaison with Project Managers (PMs), project team members, Echelon III and IV Design and Construction Business Line and Operations Department managers and leaders, and senior military/civilians and staff in supported commander organizations. All individuals at the GS-0801/0808-13 level and above and all supervisors overseeing the work of engineers/architects must be professionally licensed. Unlicensed engineers and architects must receive technical and professional oversight from licensed engineers and architects.

The Senior MILCON PgM (GS-0801/0808-14) works with oversight from the MILCON Branch Head (often with the support of MILCON staff) to support and champion the project development, programming, budgeting, and execution of projects grouped into a program

(generally based on geographical location or client). The Senior MILCON PgM must be capable of managing programs consisting of increasingly more complex projects, quantity of projects, and/or challenging issues and clients. The incumbent is required to be a registered Professional Engineer (PE) or Registered Architect (RA). The level of independence required at the Senior MILCON PgM level covers the following areas, although not necessarily limited to those noted: communications (internal and external); facilitation and mediation; conflict resolution; business integration, briefings at all appropriate and necessary levels; experience with large and complex projects; and mentoring current and prospective MILCON PgMs.

MILCON Branch Managers, the Deputy Director, and the Director are leadership and management positions in the DC Community. They are recognized as NAVFAC's technical experts with regard to all MILCON issues, programs and projects for which NAVFAC is the execution agent and for all Navy and USMC projects, regardless of execution agent. The incumbents must demonstrate expertise in the following areas, although not necessarily limited to those noted: communications (internal and external); facilitation and mediation; conflict resolution; business integration; briefings at all appropriate and necessary levels; experience with large and complex projects; and mentoring of less experienced MILCON PgMs. These are supervisory positions and must meet all other responsibilities assigned within the MILCON Program Manager Career path. The incumbents are required to be a registered PE or RA. The Director is recognized as the Command's top technical authority for all MILCON issues.

IV. Design and Construction Program Management - Workforce Progression Detail
Balanced Development:
Experiential Assignments, Self-directed, and Social Learning

Entry: NA GS1-11	
Refer to NAVFAC Engineering and Architect Community Management Framework and the Design and Engineering and Construction Community Management Competencies of the Design and Construction Community Management Plan	
Journey: NA GS12	
Refer to DC Project Management Community Management Plan and NAVFAC Project Management Community Management Framework. Project Management Competency is foundational for Program Managers.	
Expert: PgM (GS13), MILCON PGM (GS13), Senior PgM (GS-14), Senior MILCON PgM (GS14), Branch Head MCON/MILCON (GS-15), Dir./Dep. Dir. MILCON Program Office (GS-15) GS13-15	
Industry Specific & Technical Competencies	All competencies of the Project Manager **DC1:** To apply knowledge and experience and understanding of the Design, Project, and Construction Management Processes **DC2:** To apply broad technical knowledge of multiple engineering disciplines or numerous diverse engineering specialty areas with a discipline **DC3:** To apply knowledge and practical experience with Functional Analysis and Concept Development (FACD). **DC4:** To apply knowledge of project and program Funds Management including: • NAVFAC eProjects CWE Calculator for determination of project construction Funding Requirement (FR) prior to award of primary construction contract • NAVFAC Financial Management Systems **DC5:** To apply understanding of Acquisition/Contract Management contract vehicles especially for design and construction **DC6:** To apply comprehensive knowledge of the Facilities Projects Manual OPNAVINST 11010.20H **DC7:** To apply knowledge of Asset Management areas of expertise (Planning and Real Estate) including initial Project Development planning, processes and tools (MTP3, GSIP, Master Plans, RSIP, RIPS, RSIMS) **DC8:** To apply knowledge of Facility Planning Criteria for Navy and Marine Corps Shore Facilities **DC9:** To apply knowledge of NAVFAC P-72; Department of the Navy Facility Category Codes **DC10:** To apply knowledge of environmental, NEPA, historic, and cultural resources requirements

	DC11: To apply knowledge of housing, utilities, and base operations as applicable for facilities projects **DC12:** To apply knowledge of Construction Project Management (Contract, Scheduling, Funding, Quality Assurance, Partnering, etc.) **DC13:** To apply knowledge of Navy MILCON Team Planning and Programming Process (MTP3) or similar process for other than Navy MCON program including: • Project Readiness Index (PRI) #1 and #2 • Final Project Development leading to Region/Echelon IV Team Final 1391 • Consistency Review Board and Echelon IV Cost Update • Program Final 1391, Budget Final 1391 and Submit to FMB • OSD Final 1391 and PRESBUD Submit to Congress **DC14:** To apply knowledge of DoD Planning, Programming, Budgeting, and Execution (PPBE) process **DC15:** To apply knowledge of Naval SYSCOM Systems Engineering Technical Review (SETR) Policy **DC16:** To interpret policies and guidelines to ensure fair and consistent application of principles and practices **DC17:** To provide support on MILCON issues during initial planning effort **DC18:** To champion earliest practical program identification and coordinate issuance of design authority/funding with the goal of enabling Echelon IVs sufficient time and resources for MILCON project development and preparation of construction contract solicitation documents that ensure successful execution satisfying client expectations **DC19:** To evaluate MILCON project information to assess risks to be considered in resource allocation **DC20:** To represent Echelon Echelon II MCN on the MCON Consistency Review Boards **DC22:** To evaluate MILCON project information to assess project readiness **DC23:** To validate MILCON project scope, cost, and schedule for budget book preparation utilizing the NAVFAC Electronic Project Generator (EPG) application **DC24:** To provide MILCON project advocacy during the budget review that includes providing information and justification to address FMB, OSD, and Congressional concerns **DC25:** To provide MILCON project oversight and guidance to component commands and others throughout the project/program life cycle including: • Monitoring project execution using NAVFAC eProjects application, relationships, and other resources to identify potential issues • Preparing documents to be submitted by Echelon II MILCON for reprogramming, cost variation notifications, and/or scope variation notifications **DC26:** To preparing NAVFAC position papers with recommendations for approval

	DC27: To visualize and conceive complex multi-discipline engineering procedures for the solution of complex engineering processes **DC28:** To organize and provide briefings on highly complex, one-of-a-kind, multi-discipline projects to higher authority and subordinates **DC29:** To identify and initiate areas for process improvement that will have the highest payback for the Navy **DC30:** To communicate effectively at all levels to include higher level authorities (e.g. CNIC, OPNAV N46, Marine Corps, ASN (EI&E), OSD, Congress) **DC31:** To supervise, coach, and mentor current and prospective MILCON PgMs and subordinates **DC32:**To effectively apply new technologies and processes from current industry partners
Competency Source A: Education	• A bachelor's degree from an accredited (ABET or NAAB) university in Engineering or Architecture
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Rotational assignments with Echelon II MILCON (DC1-31). • Rotational assignments with CNIC, OPNAV or OSD (DC6, 8, 16, 17, 19, 27, 28, 30). • Rotational assignments with Asset Management & Environmental Business Lines (DC7, 8, 9, 10, 16, 28, 29, 30)
Competency Source C: Training	• Financial Management Basics (DC4) • Microsoft Project Advanced (DC20, 23) • MILCON Installation DD1391 (DC7, 8, 13, 14, 17) • eProjects 101 (DC4, 25) • CI PM Manual Overview (DC16) • Using the BMS (DC7, 29) • Facilities Planner (DC7, 8, 13, 14, 17) • Environmental Law for Non-Lawyers (DC10) • EPG (DC23) • Fiscal Appropriations Law (DC4)
Competency Source D: Reading	• NEPA Law (DC10) • Facilities Projects Manual OPNAVINST 11010.20H • CI Project Management Manual (DC1, 2, 16) • International Building Code, UFC 1-300-09N Design Procedures, UFC 1-200-01 DoD Building Code (DC1, 2, 16) • Project Management Institute, A Guide to the Project Management Body of Knowledge, PMBOK Guide (Current Version) (DC1, 2, 16) • Project Management Institute, The Standard for Program Management (Current Version) (DC1, 2, 16) • Business Management System (DC1, 7, 29) – B-1.2 Project Initiation – B-1.4 Design Build – B-1.5 Design Bid Build – B-11.3.2 Preliminary Design Authority Process – B-11.5.2 Final Solicitation Document Design Authority – B-12.3 Design-in-Place Management • B-12.6 Project Management Resourcing

Competency Source E: Industry Participation	• American Consulting Engineers Council (ACEC) (DC32) • National Society of Professional Engineers (NSPE) (DC32) • Association of General Contractors (AGC) (DC32) • Project Management Institute (PMI) (DC32)
Professional Certifications	• Registration as Professional Engineer (PE) or Registered Architect (RA) is required at the GS13, 14, and 15 level. • Certified at DAWIA FE Career Field Level III and current with Continuous Learning Points.

The proficiency scale shown in Table 1 below is an instrument used to measure one's ability to demonstrate a competency on the job. The scale captures a wide range of abilities and organizes them from Level 1 (awareness) to Level 5 (expert). The proficiency scale may be applied against each competency to compare current levels of proficiency against levels required for the various positions within a Career Segment (Associate, Journey, Expert). While the competencies for positions within a career segment are the same, the proficiency required increases as an individual moves up the career ladder taking on positions with greater responsibility, authority, and grade (Refer to Proficiency Map, Table 2). For additional information refer to the NAVFAC Definitions and Proficiency Scales.

Proficiency Scale	
1. Awareness	Limited Experience or knowledge is required in this competence
2. Basic	Some knowledge and experience of this competence is required
3. Intermediate	This competence needs to be demonstrated though may only be partially demonstrated and could be performed under supervision
4. Advanced	Full competency is required supported by knowledge and experience
5. Expert	Full competency supported by deep knowledge and broad experience; the individual is likely to be regarded as a thought leader

Table 1. Proficiency Scale

Career Segment Position	Required Proficiency
PgM, MILCON PgM (GS13)	Intermediate/Advanced
Sr PgM, Sr MILCON PgM (GS14)	Advanced
MCON/MILCON Branch Head, MILCON Dir./Dep. (GS15)), Dir/Dep Medical Facilities Program Office, Director Criteria Program Office	Expert

Table 2. Proficiency Map

E. Management / Program Analysts

I. Community Description

Design and Construction Business Line (DCBL) Management/Program Analysts (M/PAs) primarily serve as analysts and advisors to management on the evaluation and effectiveness of programs and operations, as well as the efficiency and productivity of DC business line functions. They manage financial execution for DC projects, programs and/or budgets. M/PAs understand the DC Product & Service (P&S) deliverables including the P&S relationship, execution-acquisition strategies, Resource Allocation Plan, Design Management Cost Recovery Program (DMCRP) and the DC fund sources.

II. Community Vision

The DC M/PA Community serves the Design and Construction Business Line (DCBL) and its commands, supporting the financial achievement of DCBL's project and program execution including design, construction, resource allocation, workforce shaping and workload projections. This community must remain adaptable, analytical, innovative and resilient as NAVFAC continues to transition into different financial and workload systems. Constantly changing processes and high velocity learning continue to be the norm, but maintaining historical knowledge and data will be just as critical.

III. Community Structure: Senior Leadership Positions and Functional Areas

- Echelon II:
  - Program & Business Management Director GS-0343-15
  - Military Construction (MILCON) Resource Manager GS-0343-15
  - Senior MILCON Program Analyst GS-0343-14
  - Management/Program Analyst GS-0343-14 Community Leader
    - Financial expert on all DCBL programs
    - SME for RAP, labor issues, Design Management Cost Recovery Program and financial/workload systems
    - Financial expert on MILCON and non-MILCON project execution
  - DLAe Program Analyst GS-0343-14
  - Medical Facilities Program Analyst GS-0343-13
  - Management/Program Analyst GS-0343-13

- Echelon III:
  - Supervisory Management/Program Analyst GS-0343-14
  - Senior MILCON Management/Program Analyst GS-0343-13
    - Financially manages the MILCON program for their AOR

- DLAe Program Management/Program Analyst GS-0343-13
  - Financially manages the DLAe program for their AOR
- Resource Allocation Management/Program Analyst GS-0343-13
  - Serves as the RAP and labor execution SME for their AOR
- MILCON Management/Program Analysts GS-0343-12
  - MILCON project execution SME
- Management/Program Analysts GS-0343-11
  - MILCON and non-MILCON project execution

- Echelon IV:
  - Supervisory Management/Program Analyst GS-0343-13
  - Senior MILCON Management/Program Analysts GS-0343-12
    - MILCON SME and/or Team Lead for their Echelon IV
  - Senior Team Lead Management/Program Analysts GS-0343-12
  - Management/Program Analysts GS-0343-7/9/11
    - Project execution for specific sites or programs
    - Supports the team leads and SMEs

IV. Workforce Progression Detail

M/PAs often work with minimal supervision and must have strong analytical skills, be self-motivated and disciplined, and be able to work in teams. They must be technically skilled in the application of fact finding and information assessment, oral and written communications, development of presentations, time management, and evaluation of data from various sources and report preparation.

DC M/PA's require knowledge of DC programs and activities, policies, objectives, management principles and analytical methods. The DC programs include MILCON and reimbursable funded programs such as DLA-e, SRM, etc.

The three levels of DC Management/Program Analysts (0343) include Associate, Journey, and Expert. The distinction between the levels is the complexity of projects managed, the experience associated with managing those projects, and the mentoring (and ultimately) the supervision of less experienced M/PAs.

Technical competencies consist of foundational and specialty skills necessary to perform duties. Technical competencies are achieved through job experience, training, and education. Those competencies listed for the associate and journey levels are required for expert level.

Design and Construction Management/Program Analyst Workforce Progression Detail
Balanced Development:
Experiential Assignments, Self-directed, and Social Learning

Entry Level: Management/Program Analyst GS – 5/7/9/11	
Technical Competencies	DC 1. To maintain good working relations DC 2. To review forms and reports; to confer with management and users about format, distribution, and purpose; and to identify problems and improvements. DC 3. To develop and implement records management programs for filing, and retrieval of records. DC 4. To effectively communicate orally and in writing. DC 5. To apply general rules to specific problems to produce logical answers. DC 6. To arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, and mathematical operations). DC 7. To utilize a basic knowledge of the Microsoft Suite software, in particular Excel and the various facets within to manipulate, analyze and display data. DC 8. To utilize a basic knowledge of the components of the ieFACMAN suite and NAVFAC financial systems such as COGNOS, CFMS, and SMARTS. DC 9. To utilize a basic knowledge of Program Planning Budgeting System (PPBS) DC 10. To utilize basic analytical and problem-solving skills DC 11. Exhibits the utmost in Character qualities
Competency Source A: Education	• A bachelor′s degree, ideally with a major of study in business, mathematics, finance, accounting, or financial management is desired but not required.(DC5, DC6, DC10)
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Job shadowing with various senior M/PAs (DC2, DC3, DC5, DC10) • Job shadowing M/PAs at a different Echelon level (DC9) • Attend various meetings between FM, PAs and Echelon levels. (DC1) • Develop mentoring relationship with experienced staff and meet regularly to discuss interests and explore options for professional development
Competency Source C: Training	• Recommended Entry Level Training: - CFMS (DC8) - COGNOS (DC8) - MILCON 101 (DC9) - ieFACMAN (DC8) - Basic Presentation Skills (DC4) - Microsoft Suite (Excel, Word and PowerPoint) (DC4, DC6, DC7)
Competency Source D: Reading	• Proper Use of MILCON Funds (DC5, DC9) • SIOH Instruction – NAVFACINST 7820.1L (DC5, DC9) • DCBL Program Analyst Manual (WON 1653998/805920) (DC8)

	• FM Financial Fact Sheets (DC5, DC8, DC9) • FMP (CFMS-C) – Desk Guide Manuals (DC8) Construction in Progress (CIP) – Project Tracking Desk Guide (DC5, DC8)
Competency Assessment: Credentials	• There are no professional certifications required for the position.

Journey Level: Senior Management/Program Analyst GS11-GS12	
Technical Competencies	DC 1. To make sound, well-informed and objective decisions. DC 2. To analyze and gather data to develop solutions or alternative methods for proceeding. DC 3. To recognize and analyze problems, conduct research, summarize results, and make appropriate recommendations. DC 4. To interpret regulations and appropriations governing expenditures of funds and evaluate impact on specific programs. DC 5. To extract and summarize detailed information from multiple data sources in a clear and concise manner. DC 6. To be knowledgeable of NAVFAC Supported Commands, the Navy organization and doctrine. DC 7. To effectively communicate with peers and leadership to ensure successful functioning of newly implemented systems or procedures. DC 8. To develop and implement records management programs for filing, protection, and retrieval of records, and assure compliance with program records. DC 9. To employ a working knowledge related to Information Management tools. DC 10. To utilize a working knowledge of project Funds Management practices. DC 11. To effectively work through problems and procedures, such as organizational change, communications, information flow, integrated production methods, inventory control or cost analysis. DC 12. To review forms and reports, and confer with management and users about format, distribution, and purpose, and to identify problems and improvements. DC 13. To effectively interview personnel and conduct on-site observation to ascertain unit functions, work performed, methods, and personnel used. DC 14. To interrelate with professionals regarding problem solving and management techniques. DC 15. To make decisions under uncertain conditions and in difficult situations. DC 16. To financially manage all funding aspects of a project. DC 17. To financially manage multiple types of funding program such as MCON, other MILCON, SRM, DLAe. DC 18. To effectively manage the Design Management Cost Recovery Program DC 19. To effectively manage RAP execution. DC 20. To utilize working knowledge of the relationship between the P&S Deliverables. DC 21. To utilize working knowledge of Microsoft suite, in particular Excel, to manipulate, analyze, and display data. DC 22. To utilize working knowledge of the components of the ieFACMAN suite, and financial systems including COGNOS,

	CFMS and SMARTS. DC 23. To utilize working knowledge of PPBS DC 24. To utilize working Knowledge of related Business Skills - Legislation, Policy and Procedure Research - Management Analysis - Process Management - Program Management - Qualitative/Quantitative Analysis - Process standardization DC 25. To employ advanced analytical and problem-solving skills. DC 26. Exhibits the utmost in Character qualities
Competency A: Education	• A bachelor's degree, ideally with a major of study in business, mathematics, finance, accounting or financial management is desired but not required. (DC2, DC3, DC5, DC7, DC8, DC9, DC13, DC21)
Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Job shadowing with various senior M/PAs (DC1, DC2, DC3, DC4, DC5, DC7, DC8, DC9, DC14, DC18, DC19, DC20) • Recommend rotations with DCBL M/PAs at a different Echelon level including: – Echelon II MILCON M/PAs (DC1, DC3, DC4, DC6, DC13, DC14, DC17, DC23, DC24, DC25) – Echelon III MILCON M/PAs (DC1, DC3, DC4, DC6, DC10, DC13, DC14, DC16, DC17, DC24, DC25) – Echelon IV PWD (DC1, DC3, DC6, DC10, DC13, DC14, DC15, DC16, DC18, DC19, DC20, DC24, DC25) • Attend various meetings between FM, PAs and Echelon levels. (DC1, DC6, DC7, DC11, DC13, DC14, DC15, DC24, DC25) • Job shadowing the Echelon III Program Managers (DC1, DC3, DC4, DC10, DC11, DC12, DC13, DC16, DC17) • Attend various meetings between OPS, Project Managers and outside clients. (DC1, DC6, DC7, DC10, DC11, DC13, DC14, DC15, DC24, DC25) • Create PowerPoint briefs and other presentations for upper level management. (DC3, DC7, DC11, DC12, DC22) • Continued development of mentoring relationship with experienced peer, and enhancement of individual development plan that includes short and long term career path projections • Act as mentor to Entry Level staff and provide guidance on development of Individual Development Plans (IDP)
Competency Source C: Training	• Desired Training in: – CFMS (DC9, DC22) – COGNOS (DC9, DC22) – MILCON (DC4, DC22, DC23) – ieFACMAN (DC9, DC22) – Basic Presentation Skills (DC7, DC12, DC13) – Microsoft Suite (Excel, Word and PowerPoint) (DC2, DC5, DC9, DC21)

Competency Source D: Reading	• Proper Use of MILCON Funds (DC4, DC10, DC17, DC23) • SIOH Instruction – NAVFACINST 7820.1L (DC4, DC10, DC17, DC19) • DCBL Program Analyst Manual (WON 1653998/805920) (DC16, DC18, DC19, DC20, DC22) • FM Financial Fact Sheets (DC17, DC19, DC20) • FMP (CFMS-C) – Desk Guide Manuals (DC22) • Construction in Progress (CIP) – Project Tracking Desk Guide (DC4, DC16, DC17, DC22)
Competency Assessment: Credentials	• There are no required certifications for M/PAs, however, there are a number of areas where certifications of various types can be obtained to further develop and enhance competency: – Master Certificate in Federal Financial Management (Graduate School USA) (DC4, DC8, DC9, DC13, DC24, DC25) – Certified Defense Financial Manager (CDFM) Certification (American Society of Military Comptrollers) (DC4, DC8, DC9, DC13, DC24, DC25)

Expert: Supervisory and Senior Management/Program Analyst (GS-13/14), Senior MILCON Program Analyst (GS-13/14), Management and Program Analyst Community Leader (GS-14), MILCON Resource Manager (GS-15), Program & Business Management Director (GS-15)	
Management/Program Analyst Technical Competencies	DC 1. To effectively manage increasingly more complex projects. DC 2. Expertise with all funding aspects of a project regardless of the program and size. DC 3. Expertise knowledge with the DC budget formulation (RAP). DC 4. Expertise understanding of the DC P&S Deliverables as they relate to budget and project execution. DC 5. To utilize expertise understanding of the DMCRP when making resourcing assessments/decisions. DC 6. To mentor prospective M/PAs as well as less-experienced analysts. DC 7. To make comprehensive general financial assessments from multiple disciplines and to employ innovative solutions. DC 8. To interrelate with people from diverse engineering fields, create partnerships, and maximize talents for the good of the project, the supported Command and the Navy. DC 9. To organize and provide briefings on highly complex, one-of-a-kind, multidiscipline projects to higher authority and subordinates. DC 10. To evaluate diverse complex unique circumstances and alternatives and make effective decisions under uncertainty. DC 11. To understand and apply key guidance (Strategic Plan, etc.). DC 12. To continually improve processes and support to supported Commanders. DC 13. To create and manage a work environment that encourages creative thinking and maintains focus, intensity and persistence. DC 14. To utilize an in-depth knowledge of Microsoft suite, in particular Excel and the various facets within to manipulate and display data. DC 15. To utilize an in-depth knowledge of the components of the ieFACMAN suite, and financial systems including COGNOS, CFMS, SMARTS, and FIS. DC 16. To retain an in-depth knowledge and understanding of PPBS DC 17. To effectively apply expert analytical and problem-solving skills. DC 18. Exhibits the utmost in Character qualities

Competency Source A: Education	• A bachelor's degree, ideally with a major of study in business mathematics, finance, accounting or financial management is desired but not required. (DC7, DC9, DC10, DC14, DC17)

Competency Source B: Experiences (Mentoring, Positional, Developmental & Rotational Assignments)	• Mentoring Associate and Journey level M/PAs within organization. (DC1, DC2, DC3, DC4, DC5, DC8, DC12, DC13
	• Recommend rotations with DCBL M/PAs at different Echelon levels including:
	  • Echelon II MILCON M/PAs (DC4, DC7, DC8, DC9, DC10, DC11, DC16, DC17)
	  • Echelon III MILCON M/PAs (DC1, DC2, DC4, DC7, DC8, DC9, DC10, DC16, DC17)
	  • Echelon IV PWD (DC2, DC4, DC7, DC10, DC17)
	• Attend various meetings between FM, PAs and Echelon levels. (DC2, DC3, DC6, DC7, DC15, DC17)
	• Job shadowing the Echelon III Program Managers (DC1, DC2, DC7, DC8, DC9, DC10, DC17)
	• Attend various meetings between OPS, Project Managers and outside clients. (DC1, DC2, DC4, DC7, DC8, DC10, DC12, DC17)
	• Attend high levels meetings between CNIC, regional offices and NAVFAC. (DC6, DC7, DC8, DC10, DC11, DC12, DC17)
	• Attend various meetings between other BLs and SLs. (DC3, DC4, DC8, DC9, DC10, DC11, DC17)
	• Attend difficult, high-tension meetings between NAVFAC, CNIC or other commands or clients. (DC8, DC9, DC10, DC12, DC17)
	• Join teams to solve high-level problems or create policies. (DC7, DC8, C11, DC12, DC13, DC17)

Competency Source C: Training	• Desired Training in: – CFMS (DC6, DC12, DC15) – COGNOS (DC1, DC6, DC12, DC15) – MILCON (DC2, DC7, DC11, DC16) – ieFACMAN (DC1, DC7, DC12, DC15) – Basic Presentation Skills (DC9, DC14) – Microsoft Suite (Excel, Word and PowerPoint) (DC9, DC14)
Competency Source D: Reading	• Proper Use of MILCON Funds (DC2, DC3, DC7, DC16) • SIOH Instruction – NAVFACINST 7820.1L (DC3, DC4) • DCBL Program Analyst Manual (WON 1653998/805920) (DC1, DC2, DC4, DC6, DC15) • FM Financial Fact Sheets (DC3, DC6, DC7) • FMP (CFMS-C) – Desk Guide Manuals (DC1, DC12, DC15) • Construction in Progress (CIP) – Project Tracking Desk Guide (DC2, DC7, DC12, DC15)

Competency Assessment: Credentials	There are no required certifications for M/PAs, however, there are a number of areas where certifications of various types can be obtained to further develop and enhance competency: - Master Certificate in Federal Financial Management (Graduate School USA) (DC6, DC7, DC11, DC16, DC17) - Certified Defense Financial Manager (CDFM) Certification (American Society of Military Comptrollers) (DC6, DC7, DC11, DC16, DC17)

The proficiency scale shown in Table 1 below is an instrument used to measure one's ability to demonstrate a competency on the job. The scale captures a wide range of abilities and organizes them from Level 1 (awareness) to Level 5 (expert). The proficiency scale may be applied against each competency to compare current levels of proficiency against levels required for the various positions within a Career Segment (Associate, Journey, Expert). While the competencies for positions within a career segment are the same, the proficiency required increases as an individual moves up the career ladder taking on positions with greater responsibility, authority, and grade (Refer to Proficiency Map, Table 2). For additional information refer to the NAVFAC Definitions and Proficiency Scales.

Proficiency Scale	
1. Awareness	Limited Experience or knowledge is required in this competence
2. Basic	Some knowledge and experience of this competence is required
3. Intermediate	This competence needs to be demonstrated though may only be partially demonstrated and could be performed under supervision
4. Advanced	Full competency is required supported by knowledge and experience
5. Expert	Full competency supported by deep knowledge and broad experience; the individual is likely to be regarded as a thought leader

Table 1. Proficiency Scale

Career Segment Position	Required Proficiency
Senior Team Lead PA	Intermediate/Advanced.
M/PA Community Leader; Sr. MILCON PA; DLAe PA; Supv. M/PA;	Advanced/Expert
Program & Business Mgmt Director; MILCON Resource Mgr	Expert

Table 2. Proficiency Map

ACRONYMS

AACE	American Association of Cost Engineers
AACEi	Association for the Advancement of Cost Engineering International
ABA	Architectural Barriers Act
ABET	Accreditation Board for Engineering and Technology, Inc.
ACEC	American Council of Engineering Companies
ACI	American Concrete Institute
ACQ	Acquisition
AE	Architect-Engineer
AFCEC	Air Force Civil Engineer Center
AGC	Association of General Contractors
AHA	Activity Hazard Analysis
AHJ	Authority Having Jurisdiction
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AMBL	Asset Management Business Line
AMI	Advanced Metering Infrastructure
AOR	Area of Responsibilities
APP	Accident Prevention Plan
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASN (EI&E)	Assistant Secretary of the Navy (Energy, Installations and Environment)
ASN (RD&A)	Assistant Secretary of the Navy (Research, Development and Acquisition)
AT/FP	Anti-Terrorism / Force Protection
BACnet	Building Automation and Control Networks
BICSI	Building Industry Consulting Services International
BLs	Business Lines
BMS	Business Management System
CADD	Computer Aided Drafting and Design
CARD	DC Acquisition Readiness Director
CCE	Certified Cost Engineer
CCET	Certificate Cost Engineering Technician
CDFM	Certified Defense Financial Manager
CDW	Concept Design Workshop
CE	Construction Engineer
CEAM	CADD & Engineering Applications Manager
CECOS	Civil Engineer Corps Officers School
CFMS	Command Financial Management System

ACRONYMS (continued)

CHENG	Chief Engineer
CI	Capital Improvements
CID	Certified Interior Designers
CIDA	Council for Interior Design Accreditation
CIP	Construction in Progress
CM	Community Management
CM	Construction Manager
CMF	Community Management Framework
CMI	CM-In-Training
CMP	Community Management Plan
CNIC	Commander, Navy Installations Command
COAR	Contracting Officer's Authorized Representative
CoP	Community of Practice
COR	Contracting Officer Representative
CPARS	Contractor Performance Assessment Reporting System
CQM	Construction Quality Management
CRA	Cost Risk Analysis
CSRA	Cost Schedule Risk Analysis
CVS	Certified Value Specialist
DAV	Design Assist Visit
DAWDA	Defense Acquisition Workforce Development Account
DAWIA	Defense Acquisition Workforce Improvement Act
DB	Design Build
DBB	Design-Bid-Build
DC	Design and Construction
DC2	Project Management Branch Head
DCBL	Design and Construction Business Line
DD-1354	Transfer and Acceptance of DoD Real Property
DD-1391	Military Construction Project Data Form
DDC	Direct Digital Control
DDESB	Department of Defense Explosives Safety Board
DIP	Design-in-Place
DLA	Defense Logistics Agency
DLAe	Defense Logistics Agency Energy
DM	Design Manager
DMCRP	Design Management Cost Recovery Program
DOAS	Dedicated Outdoor Air Systems

ACRONYMS (continued)

DoD	Department of Defense
DON	Department of the Navy
DOPS	Deputy Operations Officer
DOR	Designer of Record
DPD	Design Production Director
DPWO	Deputy Public Works Officer
E&A CMF	Engineering and Architecture Community Management Framework
ECH	Echelon
ECI	Engineering Change Instruction
eCMS	Electronic Construction Management System
EISA	Energy Independence and Security Act
EIT	Engineer-in-Training
EPAct	Energy Policy Act
EPG	Electronic Project Generator
ERCIP	Energy Resilience and Conservation Investment Program
ET	Engineering Technicians
EV	Environmental
EXWC	Engineering and Expeditionary Warfare Center
FACD	Functional Analysis and Concept Development
FAR	Federal Acquisition Regulation
FC	Facilities Criteria
FE	Facilities Engineering
FE	Fundamentals of Engineering
FEAD	Facility Engineering Acquisition Division
FEC	Facility Engineering Command
FEI	Federal Executive Institute
FF&E	Furniture, Fixture and Equipment
FIAR	Financial Improvement and Audit Readiness
FIP	Financial Information Pointer
FIS	Financial Information System
FM	Financial Management
FMB	Financial Management Budget
FR	Funding Requirement
GE	Government Estimate
GS	General Schedule
GSIP	Global Shore Infrastructure Plan

ACRONYMS (continued)

HQ	Headquarters
HR	Human Resources
HVAC	Heating, Ventilation, and Air Conditioning
IBC	International Building Code
IDP	Individual Development Plan
ieFACMAN	Interoperable, Enterprise Facilities Management
IG	Inspector General
IGE	Independent Government Estimate
IH	In-House
IH DBB	In-House Design-Bid-Build
IMC	International Mechanical Code
IPC	International Plumbing Code
IRC	International Residential Code
IT	Information Technology
LAAB	Landscape Architecture Accreditation Board
LAN	Local Area Network
LANT	NAVFAC Atlantic
LCCA	Life Cycle Cost Analysis
LEED	Leadership in Energy & Environmental Design
LID	Licensed Interior Designers
LPG	Liquefied Petroleum Gas
M/PAs	Management/Program Analysts
MACC	Multiple Award Construction Contracts
MBA	Master of Business Administration
MCICOM	Marine Corps Installations Command
MCN	Major Construction, Navy
MCON	Major Construction Operational Navy
MFPO	Medical Facilities Program Office
MILCON	Military Construction (Other Defense)
MS	Master of Science degree
MTP3	MILCON Team Planning & Programming Process
NAAB	National Architectural Accrediting Board
NAVAIR	Naval Air Systems Command
NAVFACENGSYSCOM	Naval Facilities Engineering Systems Command
NAVSEA	Naval Sea Systems Command
NCARB	National Council of Architecture Registration Boards
NCC	Navy Crane Center

ACRONYMS (continued)

NCSEA	National Council of Structural Engineers Association
NDBM	NAVFAC Design-Build Master
NEI	NAVFAC Executive Institute
NEPA	National Environmental Policy Act
NESC	National Electric Safety Code
NFGC	National Fuel Gas Code
NFPA	National Fire Protection Association
NIBS	National Institute of Building Sciences
NICET	National Institute for Certification in Engineering Technologies
NOSSA	Naval Ordnance Safety and Security Activity
NSLS	Navy Senior Leader Seminar
NSPE	National Society of Professional Engineers
OICC	Officer in Charge of Construction
OPM	Office of Personnel Management
OPNAV	Office of the Chief of Naval Operations
OPNAV N4	Deputy Chief of Naval Operations for Fleet Readiness and Logistics
OPNAV N9	Deputy Chief of Naval Operations for Warfighting Requirements and Capabilities
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPS	Operations Officer
OSD	Office of the Secretary of Defense
OSHA	Occupational Safety and Health Administration
P&S	Product & Services
PA	Program Analyst
PAC	NAVFAC Pacific
PADS	Post Award Design Services
PCAS	Post Construction Award Services
PCEA	Professional Cost Estimator/Analyst
PE	Professional Engineer
PgM	Program Manager
PLA	Professional Landscape Architect
PLC	Product Line Coordinator
PLL	Product Line Leader
PLM	Product Line Manager
PM	Project Manager
PM CMF	Project Manager Community Management Framework
PMBOK	Project Management Body of Knowledge

ACRONYMS (continued)

PMEB	Project Management & Engineering Branch
PMEBH	Project Management Engineering Branch Head
PMI	Project Management Institute
PMO	Program Management Office
PNP	Pre-negotiation Position
POL	Petroleum Oil and Lubricants
POM	Program Objective Memorandum
PPBES	Planning, Programming, Budgeting, and Execution System
PPBS	Program Planning Budgeting System
PRESBUD	President's Budget
PRI	Project Readiness Index
PROJ MGMT	Project Management
PW	Public Works
PWBL	Public Works Business Line
PWD	Public Works Department
PWO	Public Works Officer
QA	Quality Assurance
QACMD	Quality Assurance Community Management Director
QC	Quality Control
QCARD	Quality Assurance Community Management Acquisition Readiness Director
QV	Quality Verification
RA	Registered Architects
RAP	Resource Allocation Plan
RCCD	Registered Communications Distribution Designer
REIM	Reimbursable
RFIs	Requests for Information
RFPs	Requests for Proposals
RIPS	Research in Progress Seminar
RLA	Registered Landscape Architect
ROICC	Resident Officer In Charge of Construction
RSIMS	Regional Shore Installation Management Systems
RSIP	Regional Shore Infrastructure Planning
SAES	Statement of AE Services
SAG	Sub-Activity Groups
SAP	Systems Applications and Products
SES	Senior Executive Service
SETR	Systems Engineering Technical Review

ACRONYMS (continued)

SFPE	Society of Fire Protection Engineers
SGE	Supervisory General Engineer
SID	Structural Interior Design
SIOH	Supervision, Inspection & Overhead
SIOP	Shipyard Infrastructure Optimization Program
SLs	Support Lines
SMARTS	SABRS Management Analytical Retrieval Tools
SME	Subject Matter Expert
SRM	Sustainment, Restoration, and Modernization
STEM	Science Technology Engineering and Math
SYSCOM	Systems Commands
TA	Technical Authority
TAB	Testing, Adjusting, and Balancing
TDC	Technical Discipline Coordinator
TDL	Technical Discipline Leader
TDM	Technical Discipline Manager
TDMM	Telecommunications Distribution Methods Manual
TEB	Test & Evaluation Board
TET	Technical Evaluation Teams
TWH	Technical Warrant Holders
UFC	United Facilities Criteria
UFGS	United Facilities Guide Specifications
USACE	United States Army Corps of Engineers
USMC	United States Marine Corps
VE	Value Engineering
WBDG	Whole Building Design Guide
WEF	Water Environment Federation
WIP	Work-In-Place