



Construction Projects: Planning, Programming, and Approval Process

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Did You Know?

Did you know it can literally take an “act of Congress” to get a road built on a military installation? Major construction projects on installations are governed by public law, through the military construction (MILCON) process. As defined in 10 United States Code Section 2801, MILCON includes any construction, development, conversion, or extension of any kind carried out with respect to a military installation. MILCON includes construction projects for all types of buildings, facilities, roads, airfield pavements, and utility systems costing more than \$750,000. While there are other funding mechanisms for construction, maintenance, and repair of facilities, major road projects on installations are generally funded through the MILCON process.

The MILCON Process

A road construction project can take many years from the identification of the requirement to final completion. It involves a sequence of reviews and approvals from the installation level through the Service’s Office of the Secretary, Office of the Secretary of Defense (OSD), Office of Management and Budget (OMB), Congress, and the President. The MILCON process is typically 5 years.

The process described here is an overly simplified version of the MILCON program. Each military service has its own policies, regulations, requirements, and guidance detailing the development and execution of the MILCON process, which should be referenced.

The services have their own specific terms, processes, and procedures which may overlap, but in general, the following steps apply for allocating MILCON resources:

- ✓ Planning / Project Development
- ✓ Programming / Budgeting
- ✓ Approval
- ✓ Execution (Project Management, Award, Construction)

AIR FORCE:

- ✓ AFI 32-1021, *Planning and Programming Military Construction (MILCON) Projects*
- ✓ AFI 32-1023, *Designing and Constructing Military Construction Projects*

ARMY:

- ✓ AR 420-1, *Army Facilities Management*
- ✓ AR 210-20, *Real Property Master Planning for Army Installations* (for planning and project identification)
- ✓ AR 415-15, *Army Military Construction and Nonappropriated-Funded Construction Program Development and Execution* (for programming and execution of the MILCON process)

NAVY:

- ✓ OPNAVINST 11010.20G, *Facilities Projects Instruction*

MARINE CORPS:

- ✓ *Military Construction, Planning and Programming Guide*

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Planning / Project Development

Effective planning is critical for establishing facility and infrastructure requirements that support mission accomplishment. It is also critical to identify the most effective and economical means to satisfy those requirements.

The first step in planning is identifying the requirement. Installations identify traffic needs 5-10 years into the future and determine which cannot be met with existing facilities. Traffic congestion, land-use changes (such as new facilities), population increases (including redeployment of military units or base realignment changes), and crash locations are a few of the reasons for traffic-related problems. Traffic engineering studies are the basis for identifying the traffic problems and developing solutions. SDDCTEA assists military installations with traffic engineering concerns and conducts a wide-range of traffic engineering studies. These studies will help determine the installation's road network needs.

Once the needs are identified, installation planners prepare and evaluate alternatives and determine the most economical and effective means of satisfying those needs. The cost of constructing new roads should always be compared with the cost for upgrading or improving existing roadways because the latter may not always be the most appropriate or economical alternative. Planners must consider potential environmental impacts for each alternative. Compliance requirements must be fulfilled and appropriate permits obtained.

Compliance items may include, but are not limited to:

- ✓ Environmental Impact Analysis
- ✓ Wetlands and Floodplains
- ✓ Coastal Zone Management
- ✓ Coastal Barrier Resources
- ✓ Threatened and Endangered Species
- ✓ Cultural Resources Management
- ✓ Unexpected Discovery of Archaeological Sites
- ✓ Interagency and Intergovernmental Coordination for Environmental Planning
- ✓ Hazardous Material Storage or Contaminated areas

The preferred alternatives are integrated into Network Plans which show the future development of the installation and are included in the Installation Development Plan (IDP). The IDP is a critical part of the Master Plan. All installations are required to have a Master Plan per Department of Defense Instruction (DODI) 4165.70, *Real Property Management*. Unified Facilities Criteria (UFC) 2-100-01, *Installation Master Planning*, outlines the master planning process and prescribes the minimum DOD requirements for master planning in accordance with DODI 4165.70. An Installation Planning Board approves the Master Plan and an appropriate authority determined by each service endorses it. Installations must submit their master planning products to the appropriate headquarters agency for approval, in accordance with service-specific policy and regulations. The UFC specifically mentions Connected Transportation Networks, and directs planners to ensure that areas within installations are thoroughly connected by roads, sidewalks, and bikeways sized to support mission requirements.

A Master Plan should include the following products:

- ✓ **A Vision Plan** – planning vision, goals, and objectives; constraints and opportunities maps; a developable area map; a framework plan; and a summary future development plan.
- ✓ **An Installation Development Plan** – Network Plans show the future development for the installation as a whole, and will, at a minimum, consist of the Installation Illustrative Plan, Regulating Plan, Street and Transit Plan, Sidewalk and Bikeway Plan, Green Infrastructure Plan, and Primary Utility Plan.
- ✓ **Installation Planning Standards** – installation standards for development.
- ✓ **A Development Program** – overall installation strategy for using and investing in real property; includes list of current known projects needed to support installation missions.
- ✓ **A Plan Summary** – an executive summary of each of the above planning products.

Site locations for the project are identified in accordance with an approved Master Plan. The detailed site approval process is service-specific. Planners should refer to service-specific guidance for direction.

MILCON Process

Planning

- ✓ Identify Requirement
- ✓ Evaluate Alternatives
- ✓ Add Preferred Alternative to Master Plan
- ✓ Prepare DD Form 1391



Programming

- ✓ Prioritize Projects
- ✓ Determine Funding
- ✓ OSD Sign-off
- ✓ Request to OMB
- ✓ President's Budget



Approval

- ✓ Authorization
- ✓ Appropriation
- ✓ Signed into Law by President



Execution

- ✓ Funding Available
- ✓ Design
- ✓ Construction

Site approvals must be obtained before project design begins. Site approval requests generally include an annotated site plan, siting justification, and supporting environmental analysis. The proper siting of individual projects has a direct bearing on cost, sustainability, maintainability, force protection and safety, environmental impacts, operational efficiency, and constructability of projects. An approved siting usually means that the project meets all siting and development requirements and standards and that any special criteria (such as safety or environmental) have

At a minimum, a completed DD Form 1391 includes the following:

- ✓ Justification
- ✓ Analysis of deficiency
- ✓ Alternatives considered with related economics
- ✓ Proposed scope with cost
- ✓ Functional requirements
- ✓ Criteria to be used
- ✓ Related acquisitions
- ✓ Utility impacts
- ✓ Environmental documentation
- ✓ Completed and required coordination actions
- ✓ Antiterrorism documentation

been considered, and deficiencies either have been or will be rectified.

The Military Construction Project Data Sheet (DD Form 1391) is the MILCON programming form prescribed by DOD and the principal DOD construction project justification document. It is prepared by the installation and explains and justifies the project to all levels in the military service command channel, OSD, OMB, and Congress. During the planning phase of military construction, the initial or draft DD Form 1391 is developed.

Project development is one of the most important actions in MILCON programming and is documented using the DD Form 1391 process. This form must be clear, concise, logical, and complete and include a description of the project, construction and related costs, and project justification. Detailed justification data should clearly describe the impact on mission, people, productivity, life-cycle cost, etc., if the project is not accomplished.

The DD Form 1391 serves as the budgeting basis for the installation and is used to generate future authorizations or update current authorizations for key project items such as project scope and programmed amount. The final document is ultimately updated and forwarded to Congress as part of the DOD budget request. Congressional approval of a specific MILCON project is based on the project scope and programmed amount as shown on the DD 1391.

Each service has a project development process in which project requirements are fully developed and the DD 1391s are refined. A valid economic analysis may be required to support each project. A strong economic justification comparing realistic and non-construction

options is essential. Cost estimates must be accurate for successful MILCON project development and execution. The estimates must be in accordance with UFC 3-701-01, *DOD Facilities Pricing Guide*, or justified with historical cost data. Required project documentation, such as environmental impact assessments and statements and antiterrorism documents, must be developed and validated before beginning project design. In addition, engineering analyses may be required to develop technical design parameters.

Design and construction schedules for each MILCON project are documented on the DD 1391. The design schedule should show design completion in time to award the construction in the fiscal year that funding is requested. If projects are delayed and do not meet the design schedule, they risk losing funding and being deleted from the program. The DD Form 1391 certification process involves multiple levels of approval (for example, Army certification requires review and approval by the U.S. Army Corps of Engineers (USACE) District and Headquarters, the U.S. Army Information System Engineering Command, and the Installation Management Command regions).

Programming / Budgeting

Programming is the process of developing and obtaining approval and funding for MILCON projects. Installations submit their prioritized list up their service chain for review and approval and further prioritizing among regional and department-wide projects. A consolidated priority list of projects is eventually developed for each military service and identified in the service's Program Objective Memorandum (POM), which outlines the resources proposed for future years.

Based on the total funding committed to MILCON in the POM, the prioritized list of projects is formulated into the MILCON portion of the service's Budget Estimate Submission (BES). The MILCON BES submittal to OSD includes the front pages of the DD Forms 1391 for all required projects.

OSD reviews each project in detail to ensure compliance with OSD planning and programming guidance. OSD then issues their proposed actions to receive MILCON funding. The final size and content of the MILCON program is determined. OSD submits the adjusted BES to the President through OMB. After receiving the approval of OMB and the President, the President's Budget is submitted to Congress. Each MILCON project is a separate line item in the DOD portion of the President's Budget request.

Approval

The final approval authority for MILCON projects rests with Congress. The process of line item project approval and funding involves the review by the House of Representatives' Armed Services Committee (HASC), the House of Representatives' Appropriations Committee (HAC), the Senate's Armed Services Committee (SASC), and the Senate's Appropriations Committee (SAC). The budget request for MILCON requirements is actually two requests, one for authorization (HASC and SASC review/approval) and one for appropriation (HAC and SAC review/approval).

AUTHORIZATION

- ✓ House Armed Services Committee (HASC)
- ✓ Senate Armed Services Committee (SASC)

APPROPRIATION

- ✓ House Appropriations Committee (HAC)
- ✓ Senate Appropriations Committee (SAC)

These committees hold hearings and resolve committee differences. Finally, legislation is drafted that authorizes and appropriates the MILCON program in line-item detail. Upon passage of the authorization and appropriation bills and the signature of the President, the MILCON projects can be awarded. Typically, each bill authorizes a MILCON project for a period of 3 years and appropriates the funds for 5 years.

Execution

Congress approves each MILCON project at a specific authorized and appropriated cost and scope. After the President signs the Appropriations Act which includes MILCON, the funding is made available for execution. Naval Facilities Engineering Command (NAVFAC) is the Department of the Navy's Construction Agent and will coordinate the execution of most Navy MILCON projects and support an acquisition strategy. U.S. Army Corps of Engineers is the Construction Agent for the Department of the Army. Each military Department may use the services of another Department in the interest of efficiency and cost-effectiveness or when otherwise considered appropriate. The Department of the Air Force uses the services of either the USACE or the NAVFAC for design and construction on their projects.

Each service has its own design directives that are used throughout the design and construction process. The design directives authorize various stages of project design, indicate project scope and cost, and provide special instructions for the design of the project. Standard design criteria, as indicated in the DD Form 1391, is used for design development of applicable facilities.

Architectural-Engineering (A-E) services may be used for field investigations, planning, design (including plans, drawings, and specifications), engineering, surveying, mapping, or construction phases. Contracting is a Construction Agent's responsibility and includes at a minimum: preparation of contract documents, construction bid process, solicitation process, contract award, construction monitoring, schedule control, cost control, preparation of contract modifications, quality assurance plans, and determining A-E associated responsibilities.

.Various types of contracts are available to the military services for flexibility in acquiring the supplies and services the government requires. There are also different types of contract delivery methods, which vary considerably.

Construction agents are also responsible for MILCON project closeout activities including inspections and documentation of project completion. After the final inspection acceptance and completion of DD Form 1354, *Transfer and Acceptance of DOD Real Property*, the military service may accept the facility from the Agent. This point marks the date that the facility is ready for use. A project becomes physically complete when the Agent certifies that the construction is complete and all deficiencies have been corrected.

Construction Contract Types

- ✓ Indefinite Delivery Indefinite Quantity (IDIQ)
- ✓ Firm Fixed Price (FFP)
- ✓ Fixed Price with Economic Price Adjustment (FPEcPA)
- ✓ Fixed Price with Incentive Firm (FPIF)
- ✓ Fixed Price with Award Fees (FPAF)
- ✓ Cost Plus Incentive Fee (CPIF)
- ✓ Cost Plus Award Fee (CPAF)
- ✓ Cost Plus Fixed Fee (CPFF)
- ✓ Letter Contracts
- ✓ Time and Materials Contracts

Common Delivery Methods of Contracts

- ✓ Traditional (Design-Bid-Build)
- ✓ Two-Step Design Build
- ✓ One-Step Design Build
- ✓ Bridging Design Build
- ✓ Design Build+ (DB+)
- ✓ Design Build (Turnkey or Fast Track)

Contact Us - This is our first attempt at a bulletin on this topic . . . If you have changes, corrections, or additional information to improve this bulletin, we would very much like to hear from you.

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OFFICIAL BUSINESS

Reference List

- ✓ 10 USC 2801, *Military Construction*
- ✓ AFI 32-1021, *Planning and Programming Military Construction (MILCON) Projects*
- ✓ AFI 32-1023, *Designing and Constructing Military Construction Projects*
- ✓ AR 420-1, *Army Facilities Management*
- ✓ AR 210-20, *Real Property Master Planning for Army Installations*
- ✓ AR 415-15, *Army Military Construction and Nonappropriated-Funded Construction Program Development and Execution*
- ✓ DODD 4270.5, *Military Construction Responsibilities*
- ✓ DODI 4165.70, *Real Property Management*
- ✓ NAVFAC Engineering & Construction Bulletin, Issue No. 2007-01, *Proper Use of Military Construction (MILCON) Funds*
- ✓ OPNAVINST 11010.20G, *Facilities Projects Instruction*
- ✓ UFC 1-300-07A, *Unified Facilities Criteria, Design Build Technical Requirements*
- ✓ UFC 2-100-01, *Unified Facilities Criteria, Installation Master Planning*
- ✓ UFC 3-210-01A, *Unified Facilities Criteria, Area Planning, Site Planning, and Design*
- ✓ UFC 3-210-06A, *Unified Facilities Criteria, Site Planning and Design*
- ✓ UFC 3-701-01, *Unified Facilities Criteria, DOD Facilities Pricing Guide*
- ✓ UFC 3-730-01, *Unified Facilities Criteria, Programming Cost Estimates for Military Construction*
- ✓ *United States Air Force Project Managers' Guide for Design and Construction*
- ✓ *United States Marine Corps Military Construction, Planning and Programming Guide*

Continuing Education	Phone	Web Site
Pennsylvania State University; The Pennsylvania Transportation Institute	(814) 865-4700	www.pti.psu.edu
University of Maryland; MD Transportation Technology Transfer Center	(301) 403-4623	www.ence.umd.edu/ttcc
Georgia Institute of Technology	(404) 385-3501	www.gatech.edu
Northwestern University Center for Public Safety	(800) 323-4011	www.northwestern.edu/nucps/index.htm
Texas A&M University	(979) 845-3211	www.tamu.edu
University of Washington; College of Engineering	(206) 543-2100	www.engr.washington.edu/epp