

## CHAPTER 6. PLANNING AND DESIGN OF CONSTRUCTION

### I. INTRODUCTION

#### A. SCOPE

This Chapter establishes policy, assigns responsibilities, and promulgates procedures for the planning and design of construction of Navy family housing.

#### B. POLICY

1. Navy family housing will be designed to meet the maximum standard attainable.

2. Navy family housing will be constructed in accordance with established Department of Defense (DOD) criteria.

#### C. REFERENCES

1. OPNAVINST 11210.1: "Highways for National Defense"
2. NAVFACINST 11010.57: "Site Approval for Naval Shore Facilities"
3. NAVFACINST 11010.63: "Planning Services for Navy and Marine Corps Shore Activities"

#### D. SUMMARY

This Chapter is organized into the two topical areas summarized below:

1. Responsibilities. The Commander, Naval Facilities Engineering Command (COMNAVFACENGCOM), is responsible for establishing criteria and standards for the planning, design, and construction of Navy family housing. The Engineering Field Divisions (EFD's) are responsible for developing project documentation for family housing construction projects. The Field Activities are responsible for participating in the development and preparation of such projects.

2. Development of New Construction Projects. New construction proposals for family housing must be carefully planned, developed, and closely reviewed at all echelons within the chain of command. Particular attention should be addressed to site selection, and care should be taken to ensure that project cost estimates, site data, and other supporting information are accurate and current.

### II. RESPONSIBILITIES

#### A. THE COMMANDER, NAVAL FACILITIES ENGINEERING COMMAND

COMNAVFACENGCOM is responsible for promulgating criteria and standards for the planning, design, and construction of Navy family housing. In fulfilling this responsibility, COMNAVFACENGCOM will do the following:

1. Formulate a list of housing construction projects for preliminary planning and inclusion in the current military construction (MILCON) budget request (legislative program).
2. Provide guidelines for specific projects in a particular budget year.
3. Prepare the final project documentation required for submission to the Congress.
4. Coordinate with the Commandant of the Marine Corps (CMC) on new construction projects for Marine Corps Activities.
5. Review sites for proposed family housing construction projects.

B. THE ENGINEERING FIELD DIVISIONS

The EFD's are responsible for the development of project documentation for family housing construction projects. In fulfilling this responsibility, EFD's will:

1. Coordinate with the Field Activity for site selection, related utility and access considerations, and design criteria.
2. Provide COMNAVFACENGCOM with an environmental assessment and with data on proposed sites and costs.
3. Coordinate actions with the local civilian community.

C. FIELD ACTIVITIES

Field Activities are responsible for participating in the development and preparation of family housing construction projects.

III. DEVELOPMENT OF FAMILY HOUSING CONSTRUCTION PROJECTS

COMNAVFACENGCOM is responsible for the execution of the Navy Family Housing MILCON Program. The development and execution of new construction projects for family housing involve various components, such as housing, planning, real estate, and construction, in the COMNAVFACENGCOM and EFD organizations.

A. PROJECT SCOPE AND COST LIMITS

The scope of each family housing construction project provides for land acquisition, planning, site preparation, design, construction, initial equipment, and support facilities such as roads, streets, walks, utility systems, landscaping, and parking areas. The maximum development cost, including supervision, inspection, and overhead, and number of dwelling units for each project is fixed by law for each construction project location.

B. PRELIMINARY PLANNING

It is particularly important that the EFD's give close attention to the thoroughness and soundness of preliminary planning actions taken on proposed family housing construction projects. DOD relies on the results of the preliminary planning actions by the military departments for what they present and defend to the Congress. After legislative enactment, DOD gives close attention to any changes or problem. which arise during the design and development period and which relate to decision. made during the preliminary planning period. Costs for preliminary planning of family housing construction projects are properly charged to Family Housing, Navy Account, BP-40, Construction.

Potential problems associated with candidate sites, site engineering, construction execution, abnormal cost increases, environmental impacts, community relations, required waivers, and so forth, must be identified in the preliminary planning submittal to COMNAVFACENGCOM. The alternatives available and the estimated cost impacts should also be presented. These steps must be taken with each project.

Failure to comply with the preliminaries places a project in jeopardy of rejection by the Office of the Secretary of Defense (OSD) and the Office of Management and Budget (OMB), the two reviewing authorities in the budget cycle. Even after Congressional authorization and funding, OSD can, and occasionally does, withhold approval for the service to proceed with design and construction when a serious problem which should have been identified during the preliminary planning period arises.

C. PLANNING GUIDANCE

1. Site Selection. The selection of a housing site will be in accordance with NAVFACINST 11010.63. Site approval, shall be in accordance with NAVFACINST 11010.57.

2. Project Cost Estimates. Project cost estimates are subsequently legislated as the statutory maximum cost for project development. Each project has its own line item cost limitation. The total project cost estimate, referred to as the current working estimate (CWE), is the sum of the following:

a. Cost of the dwelling structures (including installed fixtures and equipment) to the 5-foot line. This is calculated by COMNAVFACENGCOM. The budget estimate is normally based on the estimated average cost per square foot of net floor area in the Washington, D. C., area (considered DOD-wide as cost index 1.0) to construct DOD criteria family housing, multiplied by the appropriate area construction cost index for the particular project location.

b. Cost of developing the housing site outside the 5-foot line of the structure, e.g., site preparation, roads, walks, utilities, landscaping. This is calculated by the EFD and reviewed by COMNAVFACENGCOM.

c. Unusual costs such as land acquisition, demolition, construction of or modifications to existing utility plants, special foundations, required installation of offsite utility lines and access roads. This is calculated by the EFD and reviewed by COMNAVFACENGCOM.

d. The cost of supervision, inspection and overhead (SIOH); contingency; and Government-furnished equipment. This is calculated by COMNAVFACENGCOM.

e. Planning and design costs are developed by COMNAVFACENGCOM(R) and budgeted for separately.

3. Nonhousing Construction Projects. Nonhousing construction projects which will be needed to support a particular housing project or which will be impacted by a proposed housing project, should be identified by the MILCON project number. It is imperative that such nonhousing projects be identified in order that the proposed family housing and nonfamily housing construction projects can be coordinated by COMNAVFACENGCOM. Other facilities, such as a housing office or community center, which are required for the exclusive support of a housing project must be included in the family housing MILCON budget request.

4. Public Access and Support Roads. The construction of family housing may create an impact on the surrounding road network or require new public access to the housing project. Early identification of such impact or access needs should be conveyed to COMNAVFACENGCOM and the local highway authorities. It often takes a number of years to develop highway improvement projects, so early planning is essential, particularly if completed improvements are required when the family housing is to become available for occupancy.

Improvements to public highways can be identified, evaluated, and accomplished through the highways for national defense authorization which is explained in OPNAVINST 11210.1. The program provides for coordination with Federal, State, and local highway departments to identify potential highway needs, and under certain circumstances, to pay a fair share or full cost of improvements necessitated by defense activities.

5. Site Data. For proposed onstation projects, the EFD provides COMNAVFACENGCOM with the Field Activity general development map marked to show the proposed family housing sites and a large-scale plan of the housing site showing the site boundaries, acreage, number, and types of units to be situated on the land, any waivers required, and the points of connection to the station basic utility systems. Location of the housing structures and street patterns within housing site boundaries by the EFD is not required.

If land acquisition is required, a map showing the proposed location, parcel boundaries, estimated acreage, estimated acquisition cost, and other information considered pertinent is required.

6. Environmental Assessment. An environmental assessment is required for each project.

7. Waivers. Required waivers from planning, design, and construction criteria (for example, runway centerline distances, air installations compatible use zones, explosive safety quantity distance arcs, or setbacks from sewage treatment plants) should be reported, including the impact thereof on the estimated project development cost.

8. Architect-Engineering (A-E) Services. Funds may be requested from COMNAVFACENGCOM if A-E services are needed for soil borings or utility, topographic, and energy studies in connection with the preliminary planning of projects. These will normally be funded from project design funds (BP-40).

9. Design Directive. A directive is issued to the EFD by COMNAVFACENGCOM authorizing design and including information on site approval, project composition, cost objective, time schedule for design submissions, and references to applicable design criteria and directives. Conventional design can be initiated prior to Congressional authorization when the project location and number and composition of dwelling units have become firm and are reasonably assured of enactment through the legislative process.

**This page intentionally left blank.**