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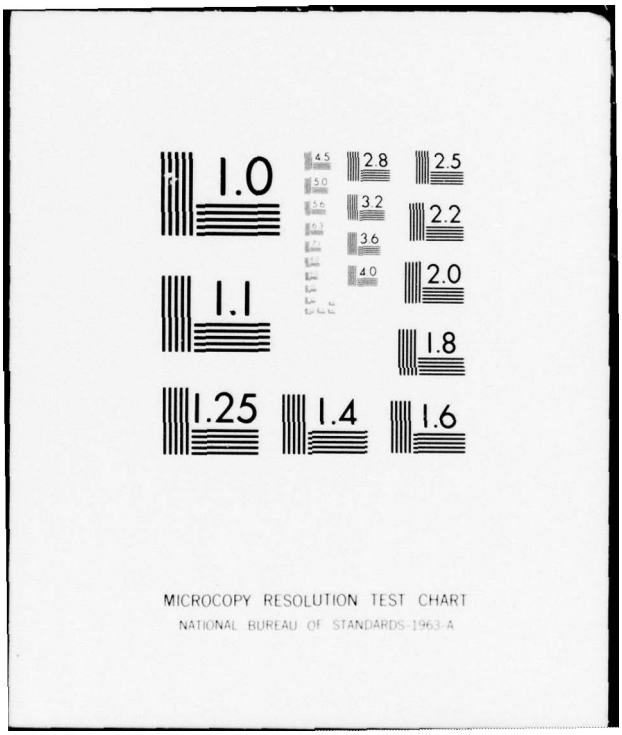
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DEFENSE SYSTEMS MANAGEMENT COLLEGE

PROGRAM MANAGEMENT COURSE
INDIVIDUAL STUDY PROGRAM

A PROGRAM MANAGER'S GUIDE
TO MILITARY CONSTRUCTION

STUDY PROJECT REPORT
PMC 76-2

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FORT BELVOIR, VIRGINIA 22060

A PROGRAM MANAGER'S GUIDE TO MILITARY CONSTRUCTION

Study Project Report

Individual Study Program

Defense Systems Management College

Program Management Course

Class 76-2

by

Charles W. Solliday

LT COL, EN, USA

November 1976

Study Project Advisor

Lt Col Carroll C. Rands, USAF

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DEFENSE SYSTEMS MANAGEMENT COLLEGE

STUDY TITLE: A PROGRAM MANAGER'S GUIDE TO MILITARY CONSTRUCTION

STUDY PROJECT GOALS:

To identify requirements and responsibilities for construction planning, and to consolidate references and directives into a single guide which the Program Manager can use to assess construction planning progress.

STUDY REPORT ABSTRACT:

The purpose of this report is to examine the planning, programming and budgeting of military construction required in support of major weapon systems. Categories of construction and funding of facilities with RDT&E funds are reviewed. The lack of construction guidance in acquisition directives is assessed. Policies, procedures and documentation from project initiation to construction are summarized for each Service major construction programs. Early facilities planning and use of civil/facilities engineering expertise is stressed to insure compatibility between construction and system acquisition.

KEY WORDS:

CONSTRUCTION, FACILITIES

NAME, RANK, SERVICE
Charles W. Solliday, LTC, EN, USA

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EXECUTIVE SUMMARY

This report identifies requirements and responsibilities for planning, programming and budgeting of military construction required in support of major weapon systems. The primary emphasis is on the procedures for initiating construction projects under the major programs of each Service (MCA,MILCON, MCP), however, minor and temporary projects funded from O&M or RDT&E funds are also addressed. The general lack of specific guidance on facility construction contained in system acquisition documents is reviewed and assessed. Early planning and the use of supporting civil/facility engineers is stressed in order to ensure compatability between acquisition and construction milestones. The policies and procedures for construction project submittal, review and approval for each Service are summarized. Primary documents are discussed and examples of each provided. The major milestones and time phasing for project review in each Service are reviewed and graphically portrayed. A bibliography categorized by acquisition and construction within each Service is presented for more detailed reference.

TABLE OF CONTENTS

SECTION I

INTRODUCTION

Purpose and Scope

The purpose of this report is to identify requirements and responsibilities for planning, programming and budgeting military construction required in support of major weapon system acquisitions. The myriad of documents governing acquisition of major defense systems provide little specific guidance to the Program/Project Manager concerning his responsibilities for facilities to support his system. Many documents make reference to facility planning as an important aspect of program management, but very few provide any useful data on how or when to accomplish this planning. This report will identify the references which provide for facility data collection, and provide a summary of procedures to follow to initiate construction after the requirements are known.

This document is not intended to provide a substitute for the planning and programming documents issued by the Services. It must be realized that each Service has its own methods, all of which are highly complex, with many exceptions and multiple documents in each case. It is assumed that the detailed planning will be handled by supporting civil or construction engineering agencies who are familiar with the complexities of the system. The intent of this report is to provide a brief

synopsis of the workings of each system in order to provide the Program Manager with a general knowledge of the normal procedures and a bibliography to guide him to more detailed knowledge when required.

Explanation of Terms

These definitions are generally applicable to all three services. It should be noted, however, that statutory provisions apply, particularly on cost ceilings of different categories of construction. Doubtful situations should be referred to the construction or legal authority of the applicable Service.

Alteration: The work required to adjust interior arrangements or other physical characteristics of an existing facility so that it may be more effectively utilized for its presently designated functional purpose. (21:1-1)[1]

Construction: The erection, installation or assembly of a new facility; the addition, expansion, extension, alteration, conversion or replacement of an existing facility. Includes equipment installed and made a part of such facilities, and related site preparation or other land improvements. (21:1-2)

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[1]This notation will be used throughout the report for sources of quotations and major references. The first number is the source listed in the bibliography. The second number is the page in the reference.

Construction Project: A single undertaking involving construction applicable to one or more real property facilities which includes all construction work, land acquisition, and items of installed equipment necessary to accomplish a specific purpose and produce a complete and useable real property facility or a complete and useable improvement to a real property facility. (21:1-2)

Conversion: The work required to adjust interior arrangements or other physical characteristics of an existing facility, or part thereof, so that it may be used for a new functional purpose. (21:1-2)

Facility or Real Property Facility: A separate, individual building or structure, or other form of real property, including land, which is subject to separate reporting under DOD real property inventory. (27:A-1)

Program/Project Manager: These terms are used interchangeably and refer to the weapon system manager (as opposed to the construction project manager) designated under the provisions of DOD Directive 5000.1.

Requestor: The initiator of the construction project - generally the Program Manager or his supporting functional civil engineer acting in his behalf.

Construction Planning

Acquisition of real property facilities is an integral part of the program management process throughout all phases of the system acquisition cycle. The ability to perform the mission could depend on the adequacy and timeliness of facilities required to support or house the prime system or equipment. Necessary construction must be identified and validated early enough to allow orderly and complete project planning.

Military construction programs follow an inherently long and arduous route from inception through the stages of review and approval to ultimate funding and realization of construction. They are subjected to intensive scrutiny by all levels of command and the Congress. It is therefore incumbent upon the requestor to ensure that all possible alternatives have been evaluated and that justification is complete and adequate. Factors such as time-phasing of the requirement, mission changes, economics, and replacement construction are frequently addressed in Congressional hearings and must be carefully considered by the Program Manager.

Facilities planning must identify types of structures, locations, space needs, environment, duration and frequency of use, and existing facility applications and interface. Development schedules must consider construction delays due to weather, labor, sub-surface conditions and other environmental factors. Projects must be programmed through engineer channels for approval, funding and scheduling of construction to meet time constraints of the acquisition program. The initiation of all

these requirements is the responsibility of the Program Manager. Thorough and comprehensive preparation of Program Management Plans and Integrated Logistics Support (ILS) Plans are key initial steps to insure compatibility between construction and system acquisition.

SECTION II

CATEGORIES OF CONSTRUCTION AND FUNDING

Military Construction

The major program of each Service [Military Construction, Army (MCA); Military Construction, Navy (MILCON); and Military Construction, Air Force (MCP)], is the usual and preferred method of providing facilities for systems acquisition and research, development, test and evaluation (RDT&E) activities (23:1). These procedures are summarized in Section IV. In some cases minor, temporary or low cost construction can be achieved by alternate means. These categories are explained below.

Minor Construction

Operation and maintenance funds and RDT&E funds may be used for minor construction projects not in excess of $75,000. The levels of approval vary within services. Supporting civil/facility engineers should be consulted. Minor construction projects costing between $75,000 and $400,000 which are urgently required may be approved and funded with minor military construction funds under 10 USC 2674. This program follows the same general procedure and documentation required for the regular military construction program except approval is authorized within DOD. (29:2)

Contractor Research and Development Facilities

Construction or acquisition of industrial or R&D facilities needed by contractors in the performance of R&D contracts are authorized under the provisions of 10 USC 2353. Such acquisitions are governed by Sections IV and XIII of the Armed Services Procurement Regulations (ASPR). (29:2)

Test and Prototype Facilities

RDT&E funds are authorized for construction of a facility that is, itself, the subject of an R&D test and is at least partially destroyed or consumed during the test. R&D funds are also authorized for prototype facilities constructed for the sole purpose of verifying or establishing criteria essential to the construction of an RDT&E facility. (29:2)

Temporary Construction

Facilities which are temporary in nature and essential to the R&D process, may be constructed with RDT&E appropriations. Their use is limited to the duration of their need on the project. Relocatable facilities are authorized under the same conditions and must be returned to stock when their R&D function has been satisfied. (29:3)

Installation of Equipment

RDT&E funds may be used for the installation of moveable equipment required for the R&D effort. Such equipment must be removeable without substantial damage to the facility. (29:3)

Unauthorized Construction

As with all construction projects, civil/facility engineers should be consulted for guidance. Projects for construction using any type of appropriations are not authorized when —

a. Existing Government-owned facilities capable of meeting the requirements are available.

b. Unwanted duplication will result.

c. The purpose can be achieved by contracting, leasing or other means at less cost to the Government.

d. Ceiling costs are circumvented by incremental construction, unauthorized mix of different funds, construction of incomplete or unuseable facilities, and unauthorized charging of construction costs to operation and maintenance funds.

e. Modifications are planned on a facility which is within one year of acceptance of the facility from the construction agency. (23:2)

SECTION III

ANALYSIS OF ACQUISITION DOCUMENTS

An analysis of system acquisition directives of the three services reveals little guidance to the Program Manager on facility construction policies and procedures.

Army Guidance

The basic Army guidelines for acquisition management, promulgated in AR 70-1, include one paragraph on facilities which is devoted almost exclusively to facilities for the actual research and development effort itself, as opposed to facilities to support the end product of the development. (5:1-7) DA Pamphlet 11-25, Life Cycle System Management Model for Army Systems, contains a very detailed step-by-step model of a complete acquisition process cycle without a single mention of facilities.

Navy Guidance

The Navy's RDT&E Management Guide also devotes a single paragraph to facility acquisition with no references or guidance provided. In similar fashion to the Army, their management plan guidance ignores facilities. (16:2-22)

Air Force Guidance

The Air Force acquisition management guide, AFSC Pamphlet 800-3, is the only general document which is considered to adequately address the facility construction issue. It provides broad guidance, identifies personnel responsible for implementation, and requires a facility section or annex to the Program Master Plan (1:13-1).

Systems Engineering and Logistics Management Documents

A review of systems engineering and logistics management documents provided numerous references to facilities, however, most were just passing references, with very few providing useful guidance. The documentation considered most useful is summarized below.

Military Standard 490, Specification Practices, does not prescribe construction specification format, but does provide a starting point for the collection of construction criteria by providing a list of characteristics which should be considered in facility construction. Data on all applicable characteristics would provide a good base to provide to the architect or engineer agency involved in the facility design (14:45).

The joint service guide, Acquisition Management, Standard Integrated Support Management System (AMCR 700-97, NAVMATINST 4000.38, AFLCR/AFSCR 800-24), provides a good guide for the PM for getting requirement data

from the contractor and preparation and maintenance of facilities requirements plans (2:9-1).

Military Standards 1388-1 and 1388-2, Logistics Support Analysis, provide a format for data collection which appears to be all encompassing and would provide an excellent base for the designer. (12:App A; 13:App B)

The Integrated Logistics Support Planning Guide for DOD Systems and Equipment provides excellent coverage of the Program Manager's responsibilities for facility construction. It was the most complete coverage which was found in any systems acquisition oriented document. It also addresses time phasing of requirements and the long lead times inherent with construction programs. Construction planning is addressed in detail and visually portrayed on a very comprehensive flow chart of actions required (11:Chap 9).

Conclusions

The general conclusions from a comprehensive document review is that policies and procedures for facility planning and programming are inadequately addressed in systems acquisition directives. Only the Air Force general guidance and a few more specific logistics documents provide basic minimums for the Program Manager or his logisitics director to consider.

SECTION IV

MILITARY CONSTRUCTION PROGRAM PROCEDURES

Military Construction, Army (MCA)

Army Programming is broken down into three time-phased categories. The Short Range Construction Program (SRCP) is the new fiscal year program currently being developed - the same as the "budget year plus one" in terms of the Five Year Defense Program (FYDP). Projects approved for inclusion in the SRCP are reviewed by the construction service of the Corps of Engineers to insure that data presented to Congress are valid. The Intermediate Range Construction Program (IRCP) contains the SRCP plus proposed projects for the four succeeding fiscal years. The Long Range Construction Program (LRCP) contains the total construction deficiency for the Army beyond the IRCP. The intermediate and long range programs, together, indicate the ultimate development of all facilities based on current master plans. The facilities required for weapon systems acquisition will normally fall into either the short or intermediate range categories.

The design of all major Army construction projects, except for overseas areas designated as the responsibility of another Service, will be accomplished by the Corps of Engineers. Requestors will furnish firm criteria to supporting Corps field officers so as to minimize changes, delays and additional cost. Feasibility studies, when required to sup-

port a project, will be accomplished by the requestor prior to inclusion of the project in the SRCP. Preparation of DD Forms 1391, Military Construction Project Data, and accompanying cost estimates, are prepared and funded by the requestor, with assistance as necessary from supporting facility and/or district engineer offices. Final design and construction will be limited to the scope justified during hearings before OSD, OMB and Congress.

Major Army commanders are responsible for collection, review and priority ordering of annual requirements which are forwarded to the Assistant Chief of Engineers who acts as appropriation and program director for the MCA program. The office of the Chief of Engineers will review the program for technical accuracy and conformance with prescribed criteria, prepare the DA Construction Annex of the FYDP and defend the program before higher authority. Deferral of projects will be reported to major commanders for integration into subsequent programs and updating of current programs (20:2-1).

Project Development. Basic steps to be followed in the development, execution and approval of construction projects are as follows:

The Weapon System Project Manager is responsible for developing functional requirements on which the design will be based. This is accomplished by preparing the user portion of the Project Development Brochure (PDB) in accordance with guidance contained in TM 5-800-3. It will include an outline of project requirements and source data, the

preparation of functional flow diagrams, the delineation of facility performance, space requirements, security requirements, and other data relevent to functional and operational requirements of the facility. Firm information is required on location and special equipment. Completion of this portion of the PDB is required no later than the time the project is first inserted into the SRCP.

Upon determination of basic concepts, a budgetary estimate is developed following the guidance in AR 415-17. This data and the functional data in the PDB are used by the Project Manager to prepare a DD FORM 1391, Military Construction Project Data (see Appendix Exhibits 3&4). AR 415-15 contains detailed instructions for this step. The completed documents are then forwarded through the installation commander to the Assistant Chief of Engineers.

The Office of the Chief of Engineers (OCE) will then issue instructions to the supporting District Engineer to prepare pre-concept control data, to include a project site plan, outline specifications, a building outline plan and a pre-concept control estimate. This will provide the basic data needed by OCE to defend the project and secure approval from OSD, OMB and Congress.

Based upon information contained in the PDB, a concept design is then prepared by the District Engineer. At all times during preparation of concept design, the requestor is encouraged to provide comments and constructive criticism concerning both functional and technical aspects of the facility. When concept design is completed (normally this phase will be limited to no more than 25 per cent of total design), the plans are furnished to the requestor for approval. The approved concept design

will constitute the basis for the final design. Changes may be made only to meet changed operational requirements or bona fide state-of-the-art advances, or to revise approved concepts found to be incompatible with sound engineering practice. The concept design may precede, run concurrently with, or follow project approval.

Final design will be prepared by the District Engineer upon receipt of directions from OCE. It does not require approval of the requestor, however, provisions are normally made for in-process review to assure that all user requirements have been met. In addition, copies of all completed design plans and specifications will be furnished to the requesting agency. At this point the project proceeds to contract award and execution (22:3).

Military Construction, Navy (MILCON)

The Navy has established the Shore Installation and Facilities Planning and Programming System (SIFPPS) consisting of four phases. Each phase is distinguished on the basis of its relationship to the total process. Phases I, II and part of III are continuous in nature and comprise the planning components of the system. These requirements can be considered analogous to the preparation of the facilities section of the ILS plan. The second part of phase III and phase IV are time-phased and make up the programming, budgeting and execution components of the system. The four phases are defined as follows:

Phase I, Recognition and Identification. This is the process of developing the probable impact of military requirements or changes as they affect the facility requirements of shore activities and installations.

Phase II, Analysis. This Phase consists of a detailed study and analysis to provide recommendations for tasking of supporting activities and requirements for new facilities. It includes the preparation of the Basic Facility Requirements List (BFRL), the basic planning and programming document for military construction.

Phase III, Shore Installations and Facilities Planning and Military Construction Programming. The planning portion of this phase consists of the determination of facility deficiencies and the translation of such deficiencies into requirements for construction.

The programming portion of this phase is performed primarily at Department level and includes consolidation of all requirements into the Military Construction Program Objectives (MILCON PO). From this base the CNO issues a series of program iterations through which the annual military construction program is developed based upon recommendations of the Navy Military Construction Review Board which usually convenes annually in July. The board selects the projects to be submitted to Congress for the fiscal year beginning three years later.

Phase IV, Budgeting and Execution. This phase constitutes annual submission of the program and subsequent execution of the approved program (27:I-2).

This report will deal primarily with the procedures and documentation required in phases II and III after requirements have been identified and documented in the Project Master Plan and ILS Plan. The importance of this documentation and the necessity for accurate and detailed preparation can be summarized as follows:

> In order to achieve greater acceptance and validity of the MILCON PO as a true reflection of real and tangible Navy needs, it is necessary for commanding officers of all shore activities to examine their Military Construction deficiencies to validate their currency and essentiality. Each Navy deficiency must reflect real requirements, be free from embellishments, have a sense of urgency associated with time, and be supported not only by theoretical criteria, but also by the existence of actual or known future problems affecting the mission of the activity. The presence of a prospective facility project in an approved Master Plan Document does not of itself represent justification or CNO approval of that particular project. The process of developing facility deficiencies, although simple in concept (requirements minus assets equals deficiencies), requires professional and command evolution. Hardware and production processes have become more complex and demanding upon facility support. Host/tenant relationships between different Navy activities and between activities of other services and governmental agencies are becoming more numerous and require detailed clarification in order to avoid duplication of Government facilities and installations. The Navy planning process requires full participation of command for the operational input together with NAVFAC Engineering Field Divisions for technical assistance to produce a professional, credible facility deficiencies listing. (27:V-1)

The sequence of actions for initiating and processing a Navy Military Construction project begins with the determination of the Basic Facility Requirements List (BFRL). The BFRL will list, by category code, the essential facilities required. It is reported on OPNAV Form 11000/1 in accordance with instructions and criteria contained in NAVFACINST 11010.44B and NAVFAC P-80 (see Appendix for examples of forms). This

document forms the baseline for subsequent actions of the system.

The BFRL is prepared by the Project Manager or cognizant Systems Command with assistance from the supporting Engineering Field Division (EFD) of NAVFACENGCOM. It is submitted through the EFD to NAVFACENGCOM for review and approval with copies to each echelon in the chain of command and the area coordinator. Command echelons have 60 days to take exception to the requirements at which time NAVFACENGCOM will proceed with approval processing. After approval, the BFRL is entered into the MILCON Requirements Data Book (MRDB).

The next step is an engineering evaluation of existing assets by the supporting EFD. This evaluation will be supported by the requestor by providing personnel, without reimbursement, to assist the EFD. Upon completion of the evaluation, the Project Manager will countersign the Evaluation of Existing Shore Facility Assets, OPNAV Form 11000/2, indicating his concurrence with the EFD's evaluation, or prepare a letter to NAVFACENGCOM HQ, outlining his objections to the report. If the dispute cannot be resolved by NAVFACENGCOM, it will be submitted to the CNO for resolution.

Upon completion and approval of the engineering evaluation, the EFD prepares the Summary of Facility Deficiencies and Excesses on OPNAV Form 11000/3. This process is essentially an algebraic comparison and computation of the Forms 11000/1 and 11000/2. The concurrence of the requestor is again required on this report.

At this stage a Project for Correction of Facility Deficiencies, OPNAV Form 11000/4, is initiated. Using the Form 11000/3 as a source document,

the EFD will analyze the quantitative deficiencies and will determine, in conjunction with the Project Officer, the best means for satisfying the deficiency in terms of specific projects. Although the preparation of the Form 11000/4 is a joint responsibility of the Project Manager and the EFD, normally it will be the Project Manager who will take the lead in such action. NAVFACINST 11010.44B contains detailed instructions for preparation of documents. The completed form is submitted by the Project Manager to NAVFACENGCOM via the EFD (for technical certification) and the PM's chain of command with a copy to the Area Coordinator. The conclusion of this action results in the inclusion of the project into the Program Objectives Data Bank for programming into a Military Construction Program and the initiation of a MILCON project is now complete.

In order to keep all project data current, the Program Objectives Report 1360 will be published once a year following the annual meeting of the Military Construction Review Board. The purpose of this report is to provide means for validating/updating/correcting previously submitted data. It also serves as a status report on the project. The Project Manager will review the report and return one corrected copy through his supporting EFD within 45 days of the report date.

Construction projects submitted to DOD for consideration in the next annual Military Construction Program must be described on DD Forms 1390 and 1391 and Facility Studies. These documents will be prepared in accordance with instructions contained in NAVFACINST 11010.32D when called for by the Major Claimant for Military Construction. The Project Manager will initiate and, with the EFD, jointly prepare the documents. The PM will

provide narrative and quantitative justification data and the EFD will provide the technical support. The data must be capable of withstanding many critical reviews within Navy, OSD, OMB, and Congress. The submission of these documents completes the initial requirements for MILCON by the Project Manager.

Military Construction, Air Force (MCP)

The Military Construction Program (MCP) is the fundamental process of planning, programming, approving, funding and construction of all Air Force real property facilities. Accordingly, the MCP is the primary source for test, training, operational and depot facilities required to support system programs.

The Facilities Project Engineer is a technical specialist assigned to the civil engineering activity on the product division staff. He is responsible for providing advice and support to the Program Manager for facilities acquisition and obtaining support from the civil engineering staff and contract specialists to carry out the specific tasks necessary to initiate and track a construction project.

Air Force construction requirements are determined by an analysis of specific end position missions and strengths which are reflected in the P-Series (programming) documents issued by HQ, USAF. Generally, a project is included in a construction program two years in advance of mission impacts shown in the P-Series documents. In order to maintain a balanced program, deficiencies are reviewed first by category (operation, training, R&D, supply, medical, administrative, housing, community support

and utilities), and then integrated into construction programs by priority within each category. These reviews are conducted by the Facilities Board at each major command and then reported to HQ, Air Force on the USAF Real Property Projected Utilization Detail List where a similar review is conducted by the Facilities Requirements Committee at HQ, USAF.

The Program Manager is responsible for the preparation of the following documents to support his construction requirements (preparation guidance documents shown in parenthesis) (28:4-1):

Index to Category Listing (AFM 86-1)

Project List (AFM 86-1)

Base Listing (if more than one base involved - AFM 86-1)

DD Form 1391, Military Construction Project Data (AFM 86-1)(see Appendix)

Site and Layout Plans (AFM 86-1)

Air Conditioning Data (if applicable-AFM's 88-15 & 88-29)

Program Cost Estimate (AFM 89-1)

Project Book (AFM 89-1)

The supporting civil engineering activity will normally prepare and assemble the documentation with narrative and quantitative justification, as well as unique technical data, supplied by the program office. Annual call letters issued by major commands provide detailed submittal information required to meet the MCP Budget Request issued by HQ, USAF.

SECTION V

SUMMARY

Construction of facilities to support a system acquisition involves a long and complex process not usually familiar to the Program Manager. The normal process for major construction requires input up to five years in advance of the start of construction. This process can be reduced to about a year under exceptional circumstances, however, in all but the most extreme cases, a minimum of two years of processing should be considered. It is therefore critical that facilities planning and documentation be initiated as early in program development as needs are known. This process and its relationship to the acquisition process are depicted graphically in Figure 1.

Minor and temporary construction is authorized under less severe timing constraints, but these procedures are tightly controlled by statutory provisions to prohibit circumvention of requirements for major programs due to improper planning.

The Defense Systems Acquisition Review Council (DSARC) guidelines require determination that the critical logistic support factors and facilities impact have been identified at the DSARC I review prior to the program initiation decision. They further require that issues concerning facilities have sound plans at the DSARC III review leading to the production/deployment decision. Based on timing requirements previously discussed, facilities planning must be started early if the DSARC milestones are to be met. (9:4-7)

Acquisition Phases

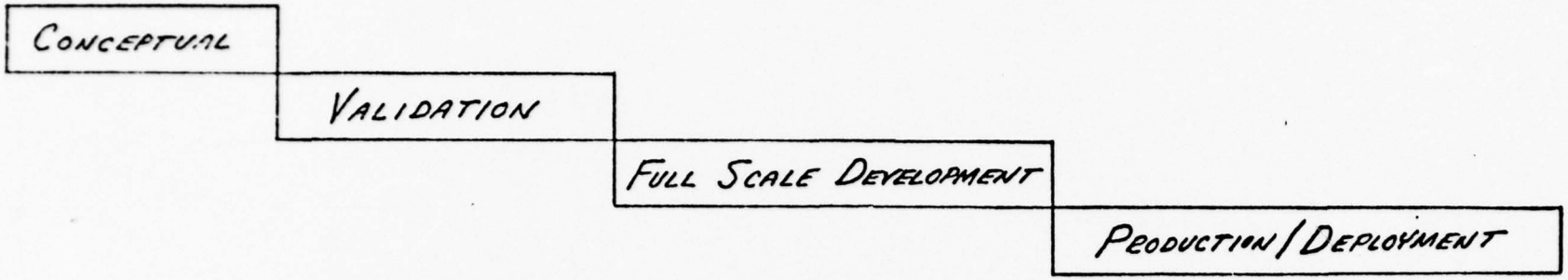
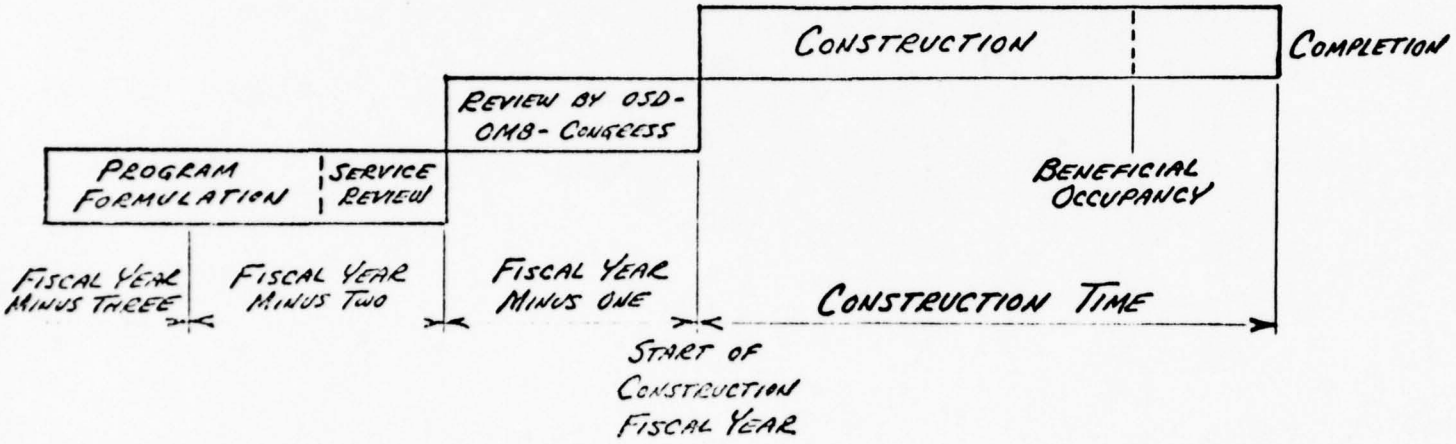


FIGURE 1

Construction Phases



Budgeting directives also impose facility planning requirements on the acquisition manager. The Procurement Justification Books, prepared for Congress, require the inclusion of a DD Form 1391, Military Construction Project Data, as a part of the justification for the end item on all programs which include facility construction. (8:325-2)

It is obvious from the foregoing that construction planning milestones share equal importance with other acquisition milestones. The Program Manager must be cognizant of these requirements if he is to avoid program delays. A competent civil/facility engineer should be among the first members included on the PM team. Engineering functional assistance should be sought in view of the complexities involved in the programming process and the dynamic nature of the requirements. Early attention to this critical function will assist in achieving and maintaining control of facilities acquisition and its contribution to successful Program Management.

APPENDIX

Sample Forms

Exhibit

1. DD Form 1390
2. DD Form 1390-C
3. DD Form 1391
4. DD Form 1391-C
5. OPNAV Form 11000/1
6. OPNAV Form 11000/1 in mechanized form
7. OPNAV Form 11000/2
8. OPNAV Form 11000/3
9. OPNAV Form 11000/4
10. Program Objectives Report 1360

1. DATE	2. DEPARTMENT	FY 19__ MILITARY CONSTRUCTION PROGRAM	3. INSTALLATION
4. COMMAND		5. INSTALLATION CONTROL NUMBER	6. STATE/COUNTRY
7. STATUS		8. YEAR OF INITIAL OCCUPANCY	9. COUNTY (U.S.) / 10. NEAREST CITY

11. MISSION OR MAJOR FUNCTIONS

12. PERSONNEL STRENGTH

	PERMANENT			STUDENTS		SUPPORTED			TOTAL
	OFFICER (1)	ENLISTED (2)	CIVILIAN (3)	OFFICER (4)	ENLISTED (5)	OFFICER (6)	ENLISTED (7)	CIVILIAN (8)	(9)
a. AS OF _____									
b. PLANNED (End FY 19___)									

13. INVENTORY

LAND	ACRES (1)	LAND COST ($000) (2)	IMPROVEMENT ($000) (3)	TOTAL ($000) (4)
a. OWNED				
b. LEASES AND EASEMENTS		( )		
c. INVENTORY TOTAL (Except land rent) AS OF 30 JUNE 19 _____				
d. AUTHORIZATION NOT YET IN INVENTORY				
e. AUTHORIZATION REQUESTED IN THIS PROGRAM				
f. ESTIMATED AUTHORIZATION - NEXT 4 YEARS				
g. GRAND TOTAL (c + d + e + f)				

14. SUMMARY OF INSTALLATION PROJECTS

PROJECT DESIGNATION		TENANT COMMAND	UNIT OF MEASURE	AUTHORIZATION PROGRAM		FUNDING PROGRAM	
CATEGORY CODE NO a	PROJECT TITLE b	c	d	SCOPE e	ESTIMATED COST ($000) f	SCOPE g	ESTIMATED COST ($000) h

DD FORM 1390

EDITION OF 1 OCT 70 IS OBSOLETE.

Page No. _____

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1. DATE	2. DEPARTMENT	FY 19___ MILITARY CONSTRUCTION PROGRAM *(Continued)*	3. INSTALLATION

SUMMARY OF INSTALLATION PROJECTS *(Continued)*

LINE ITEM DESIGNATION				AUTHORIZATION PROGRAM		FUNDING PROGRAM	
CATEGORY CODE NO. a	PROJECT TITLE b	TENANT COMMAND c	UNIT OF MEASURE d	SCOPE e	ESTIMATED COST ($000) f	SCOPE g	ESTIMATED COST ($000) h

DD FORM 1 OCT 70 1390-C

FOR OFFICIAL USE ONLY *(WHEN DATA IS ENTERED)*

PAGE NO.

FOR OFFICIAL USE ONLY *(WHEN DATA IS ENTERED)*

1. DATE	2. FISCAL YEAR	MILITARY CONSTRUCTION PROJECT DATA	3. DEPARTMENT	4. INSTALLATION

5. PROPOSED AUTHORIZATION	6. PRIOR AUTHORIZATION	7. CATEGORY CODE NUMBER	8. PROGRAM ELEMENT NUMBER	9. STATE/COUNTRY
$	P.L.			

10. PROPOSED APPROPRIATION	11. BUDGET ACCOUNT NUMBER	12. PROJECT NUMBER	13. PROJECT TITLE	NM	CM	RM
$						

SECTION A - DESCRIPTION OF PROJECT

14. TYPE OF CONSTRUCTION	
a. PERMANENT	
b. SEMI-PERMANENT	
c. TEMPORARY	

15. TYPE OF WORK	
a. NEW FACILITY	
b. ADDITION	
c. ALTERATION	
d. CONVERSION	
e. OTHER (Specify)	
16. REPLACEMENT	
17. TYPE OF DESIGN	
a. STANDARD DESIGN	
b. SPECIAL DESIGN	
c. DRAWING NO.	

18. PHYSICAL CHARACTERISTICS OF PRIMARY FACILITY

a. NO. OF BLDGS	b. NO. OF STORIES	c. LENGTH	d. WIDTH
e. DESIGN CAPACITY		f. GROSS AREA	
g. COOLING	CAP.	COST ($)	

19. DESCRIPTION OF WORK TO BE DONE

SECTION B - COST ESTIMATES

20. PRIMARY FACILITY	U/M	QUANTITY	UNIT COST	COST ($000)
			$	$
a.		( )		( )
b.		( )		( )
c.		( )		( )
d.		( )		( )
21. SUPPORTING FACILITIES				$
a.				( )
b.				( )
c.				( )
d.				( )
e.				( )
f.				( )
g.				( )
h.				( )
i.				( )
j.				( )
22. TOTAL PROJECT COST				$

SECTION C - BASIS OF REQUIREMENT

23. QUANTITATIVE DATA (U/M _____)		
a. TOTAL REQUIREMENT		
b. EXISTING SUBSTANDARD	( )	
c. EXISTING ADEQUATE		
d. FUNDED, NOT IN INVENTORY		
e. ADEQUATE ASSETS (c + d)		
	AUTHORIZED	FUNDED
f. UNFUNDED PRIOR AUTHORIZATION		
g. INCLUDED IN FY ____ PROGRAM		
h. DEFICIENCY (a − e − f − g)		

24. RELATED PROJECTS

25. REQUIREMENT FOR PROJECT

FOR OFFICIAL USE ONLY *(WHEN DATA IS ENTERED)*

1. DATE	2. FISCAL YEAR	MILITARY CONSTRUCTION PROJECT DATA *(Continued)*	3. DEPARTMENT	4. INSTALLATION
5. PROJECT NUMBER		6. PROJECT TITLE		

DD FORM 1 OCT 70 1391-C

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PAGE NO

SHORE ACTIVITY BASIC FACILITY REQUIREMENTS LIST

SAMPLE

DD	NO.	SUBMISSION DATES	CLASSIFICATION	REVISIONS
	R	10 Dec 1971	UNCLASSIFIED	25 Mar 1973

U.S. NAVAL AIR STATION, ANYWHERE, CA	2506-900	12345	11F	K5		
U.S. NAVAL STATION, SOMEWHERE, CA	1453-700	67890	K2	12 May 1971	AND OP	6 Oct 1971

SA	CATEGORY CODE	FACILITY DESCRIPTION	AREA QUANTITY	AREA U/M	OTHER QUANTITY	OTHER U/M	NAVY ALTERNATE QUANTITY	NAVY ALTERNATE U/M	SPECIAL CRITERIA	REMARKS
1	2	3	4	5	6	7	8	9	10	11
	111-10	RUNWAY E-W	100,000	SY	6,000	LF				NOTE 1
	111-10	RUNWAY N-S	155,555	SY	7,000	LF				NOTE 2
	121-10	A/C FUELING STATION			4	OL	500	GM		
	125-16	MISC POL FACIL					300	GM		
	134-10	ANTENNA			4	EA			ENG INVESTIGATION	
	149-10	A/C REVETMENT			12	EA	4	SI		
	219-77	PW MAINT STORAGE	5,000	SF						
	441-10	GENL WAREHOUSE	46,250	SF	38,480	NS	10	SH		
	540-10	DENTAL CLINIC	6,800	SF	6	OU				
	721-11	BEQ E1-E4	17,925	SF	100	MN				FY 75 BACH HSG SURVEY
	721-11	BOQ W1-O2	2,200	SF	4	MN				FY 75 BACH HSG SURVEY
	740-10	CHAPEL	5,800	SF			150	SE	P-272	
	852-10	PARKING AREA	2,200	SY						
AB	179-10	BOMB RANGES			2	EA				

SAMPLE

NAVFAC 9107-703-4001 PLATE NO. 22678

CLASSIFICATION

SHEET 1 OF 1

*** TENTATIVE ***

SHORE ACTIVITIES BASIC FACILITIES REQUIREMENTS LIST
CFNAV 11000/1
31 MAY 73

SUBMITTING ACTIVITY UIC... 12345 — ACTIVITY NAME AND LOCATION.....U.S. NAVAL AIR STATION, ANYWHERE, CA
AREA COORDINATOR (CODE 11F)....PACIFIC MISSILE RANGE, POINT MUGU

ACTIVITY CODE.....2506-900 — MAJOR CLAIMANT (CODE K5).....FACENGCOM HDQTRS, WASHINGTON

HOST UIC.....SAME

SAMPLE

(12) BFRL PREPARATION DATE...25 MAR 71 — (15) LSR SUBMISSION DATE.....
(14) BFRL APPROVAL DATE.....22 JUN 72 — (13) LAST CHANGE NO...01 — (16) LSR APPROVAL DATE.....

CATEGORY CODE	FACILITY DESCRIPTION (03)	AREA QUANTITY UM (04)	OTHER QUANTITY UM (06)	NAVALT QUANTITY UM (08)	CHANGE NO (10)	CHANGE DATE (10)	NOTE NO (17)	REMARKS
111-20	HLCPTR LDG PAD	1,112 SY*						
122-10	MARINE FUEL FACIL		~~15~~ 13 GL	750 GM*				
122-20	SML CFT FUEL STA		2 GL	150 GM*				
123-10	FILLING STATION		2 GL*	20 GM				
124-40	SML CFT R/FUEL STOR		20,000 GA*					
124-50	VEH R/FUEL ST		10,000 GA*					
126-30	TK TR/CR LD FAC		4 CL*	~~500~~				
126-40	TK TR/CR UNLD F		4 CL*	~~500~~				
131-15	COMM CENTER	4,000 SF*						
131-40	TEL EXCHANGE BLD	4,950 SF*						
131-60	MARS STATION	1,500 SF*						01 APPVD PLNG PURP ONLY OSD APPVAL REQ
132-10	ANTENNA - COMM		4 EA*					
133-40	PORT CONTROL OFF	810 SF*						
141-75	ARMORY	4,500 SF*						
151-40	FUELING PIER	400 SY	120 FB*					
152-20	GEN PURP WHARVES	14000 SY	4,208 FB*					
153-10	CARGO STG AREA	~~216,000~~	24100 SY*		01	12 Jan 73		
153-20	WTRFR TRANS SHD	~~64,000~~ SF	7100 SY*					

SAMPLE

FACSO RPT/SYM NO. 11016/R1028R01

ENGINEERING EVALUATION WORKSHEET
OPNAV 11000/2
25 SEP 73

ACTIVITY UIC.....00317
ACTIVITY CODE.....1514675
SEQUENCED BY BUILDING NO.

ACTIVITY NAME AND LOCATION.....AMMUNITION DEPOT, OAHU
ACTIVITY AREA COORDINATOR (CODE 14A)...BASE, PEARL HARBOR
ACTIVITY SUB MAJOR CLAIMANT (CODE K1)...ORDNANCE SYS COMD HDQTRS, WASHINGTON

RPTG UIC	PR NO	USE	CAT CODE (502)	BLDNG NO	CURRENT USE (501)	MAP GRID	C	T	F	UNUSED ADEQUATE (006) (504)	UNUSED SUBSTD (505)	USED ADEQUATE (506)	USED SUBSTD (507)	DEFICIENCY CODES (508)	PROP USE (503)	NOTE NO	EE DATE (009)
SPECIAL AREA (BA) NAME....WEST LOCH																	
200001 01																	
USER 01 (510)UIC..00317																	
00317 200002 01 84320			51		FIRE PRO PMP ST	H7	S	4									
USER 01 (510)UIC..00317																	
00317 200559 01 13140			52		TELE Ex BLDG	G8	P	2				342		D36			
USER 01 (510)UIC..00317					(511)AREA.....342 SF*												
00317 200560 01 21610			53		RWRK O/H	H7	S	2				6048					
USER 01 (510)UIC..00317					(511)AREA.....6048 SF*												
00317 200561 01 42142			54		SMOKEDRUM ST	H7	S	2				1275		D36			
USER 01 (510)UIC..00317					(511) 1275 SF							(513) 8925 CF					
00317 200564 01 42132			55		INERT STOREH	H8	S	2				5760		D36			
USER 01 (510)UIC..00317					(511) 5760 SF							(513) 60000 CF					
00317 200565 01 22977			57		PROD STRG RDY I	H9	S	2			1	5763		D36			
USER 01 (510)UIC..00317					(511)AREA.....5963 SF	(512)OTHER.....~~5763~~ EA*											
00317 200566 01 21640			58		TORPEDO SHOP	G10	S	2				8296					
USER 01 (510)UIC..00317					(511)AREA.....8296 SF*												
00317 200685 01 12310			59		FILLING STATION	H9	S	3						2 D36			
USER 01 (510)UIC..00317						(512)OTHER.....2 OL*						(513)NAVALT..		30 GM			
00317 200585 01 21925			63		PW SHOP STOR	H9	S	2				320		D36			
USER 01 (510)UIC..~~00317~~ 62755					(511)AREA.....320 SF*												
00317 200567 01 42112			201		FUSE/DET MAG	G9	P	3				140					
USER 01 (510)UIC..00317					(511)AREA.....140 SF*							(513)NAVALT..		588 CF			
00317 200568 01 42112			202		FUSE/DET MAG	G9	P	3				140					

SAMPLE

SAMPLE

* INDICATES PRIME MEASURE
\+ = INVALID CAT CODE PER P 72

NOTE: DE 006 (FAC. TYPE) 2=BLD 3=STR 4=UTL
BUILDING(S) 50 THRU 202

SAMPLE

SUMMARY OF
FACILITIES EXCESSES AND DEFICIENCIES
OPNAV FORM 11000/3
31 MAY 72

ACTIVITY UIC.....12345 ACTIVITY NAME AND LOCATION.....U.S. NAVAL AIR STATION, ANYWHERE, CA

CAT CODE	FACILITY DESCRIPTION	UM	BASIC RQMNT	EXISTING ASSETS			NOT IN INVNTRY		QTY DEFICNT	QTY EXCESS	SATISFACTION OF DEF			REMARKS
				TOTAL	SUB-STD	ADEQT	CONST	OTHER			QUANTITY	SRC	FNDS	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
61010	ADMIN OFF	SF	158850	225000	154889	70111	-------	-------	88739	66150	-------	-	-	----------
61020	DATA PROC CTR	SF	42000	36353	4108	32245	-------	-------	9755		-------	-	-	----------
62010	ADM FAC UNDGR	SF	2500	2506		2506	-------	-------		6	-------	-	-	----------
69010	FLG PLE/IC MPKR	EA					-------	-------			-------	-	-	----------
71143	PUR PRE 1950 SR	EA					-------	-------			-------	-	-	----------
72111	BEQ E1-E4	MN	1991	1386	392	994	-------	1	996		-------	-	-	----------
72112	BEQ E5-E6	MN	369	331		331	-------	15	23		-------	-	-	----------
72113	BEQ E7-E9	MN	87	45	45		-------	23	64		-------	-	-	----------
72210	DIN FAC DET MEN	MN	1616	3400		3400	-------	-------		1784	-------	-	-	----------
72320	LATRINE, DET	SF		7780	7780		-------	-------		7780	-------	-	-	----------
72350	WASH RACK, DET	EA					-------	-------			-------	-	-	----------
72411	BOQ W1-02		88	44		44	-------	28	16		-------	-	-	----------
72412	BOQ 03+		44	3		3	-------	18	23		-------	-	-	----------
72430	OFF MESS-CLOSED	MN	98	170		170	-------	-------		72	-------	-	-	----------
73010	FIRE STATION	SF	10100	10348		10348	-------	-------		248	-------	-	-	----------
73013	ISS/RTL CLTH UN	SF	5200	2979	2979		5000	-------	200		-------	-	-	----------
73015	BRIG	SF	16466				-------	-------	16466		-------	-	-	----------
73020	POLICE STATION	SF	8150	5377		5377	-------	-------	2773		-------	-	-	----------
73025	GATE/SENT HOUSE	SF	700	467	214	253	-------	-------	447		-------	-	-	----------

SAMPLE

PROJECT FOR CORRECTION OF FACILITY DEFICIENCY

UNCLASSIFIED

P- 009

U.S. Naval Station, Anywhere, CA | 12345 | 11A | K2 | 12 May 1969

Same

	CATEGORY CODE	PROJECT TITLE	SPEC AREA	SCOPE QUANTITY	SCOPE UM	ESTIMATED COST ($1000)	EST COST YEAR	USABLE COMPLETION DATE MOS	USABLE COMPLETION DATE CODE	% REQUIREMENT SATISFIED W	% REQUIREMENT SATISFIED W/O	INVESTMENT PROG	INVESTMENT MASTER PLAN	ECONOMIC ANALYSIS	MAJOR CLAIMANT PRIORITY	CONSIDER	VAL CODE
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
•	721-11	BEQ MODERNIZATION	BA	115	MN	888	74	036		099	086	99	138	00.00		2B	
a	721-11	BEQ E1-4		99	MN	740				099	086					2B	
b	721-12	BEQ FS-6		10	MN	75				094	087					2B	
c	721-13	BEQ E7-9		6	MN	73				092	071					5B	F

SAMPLE

CATEGORY CODE	BFR/DTD Oct 71 REQUIREMENT	EXISTING ASSETS ADEQUATE	EXISTING ASSETS SUBSTD	OTHER ASSETS FUNDED	OTHER ASSETS OTHER	PREVIOUS PROJECTS QTY	PREVIOUS PROJECTS P-NO	DEFICIENCY	TOTAL THIS PROJECT	DEFICIENCY REMAINING
	18	20	21	22	23	24	25	26	27	28
721-11	600	400	200	50	3	40	004	107	99	8
721-12	68	40	25	6	2	8	004	12	10	2
721-13	12	0	12	1	1	3	004	7	6	1

REMARKS

To upgrade substandard Bldg 27 and replace substandard Bldg 19. Completion will eliminate substandard assets listed in column 21.

General Development Map should be updated to reflect proposed new wing on Bldg 27 for E7-9 and proposed demolition of Bldg 19.
Certified for technical adequacy based on loading.

CAPT J. P. STANLEY — 2 Feb 1973

CAPT R. E. BYRD — 16 Apr 1973

SAMPLE

JOB NO 1360 (OPNAV 11000/4) SUMMARY FOR CORRECTION OF FACILITY DEFICIENCIES

ACTIVITY NAME	ACT. CODE	UIC	ARCO	SM	PM	DATE LAST REVISED	DATE 21/05/73
SOMEWHERE US	6732-123	B-99909-00	72	Z2	99	14 JAN 1973	

SAMPLE

CF	IC	FFR	CAT CODE	PROJECT TITLE	PROJ	SCF	SA	QUANTITY	UM	E/COST	EY	FY	BOD	CB	C	IDW	IDWO	PI	MP	EC ANAL	FY	U
03	014.0		~~159-64~~ 213-58	YARD CRAFT FACILITY	*	013		~~10,900~~ 10,500	SF	583	75	79	018		3	100	052	99	115	000.00		B
08			217-20	COLLIMATION TOWER		999		LS		167	74	74			1	100	000	99	115	000.00	74	
12	032.0		~~442-10~~ 441-10	GENERAL WAREHOUSE R I	*	114		~~19,255~~ 14,519	SF	579	75	UP	008		4	100	087	99	115	000.00		
~~12~~	~~036.0~~		~~442-20~~	~~CONTROL HUMIDITY WAREHOUSE~~		~~112~~		~~4,500~~	~~SF~~	~~248~~	~~75~~	~~UP~~	~~007~~		~~4~~	~~100~~	~~000~~	~~99~~	~~115~~	~~000.00~~		
~~13~~	~~037.0~~		~~443-30~~	~~FLAMMABLE STORE HOSE~~		~~113~~		~~2,233~~	~~SF~~	~~94~~	~~75~~	~~UP~~	~~007~~		~~4~~	~~100~~	~~000~~	~~99~~	~~115~~	~~000.00~~		
16			740-56	THEATER		055		1,000	SE	1,120	74	74	013		3	075	000	99	115	000.00	74	

35

* MULTIPLE USE PROJECTS

213-58	BOAT SHOP	013	6,900 SF	3	100	62
133-40	PORT CONTROL OFFICE	"DO"	3,600 SF	3	100	00
441-10	GENERAL WHSE	114	7,477 SF	4	100	87
441-20	CONT. HUMID WHSE	"DO"	4,500 SF	4	100	09
441-30	HAZ & FLAM WHSE	"DO"	2,542 SF	4	100	00

SAMPLE

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