

CEMP-CM Regulation No. 415-1-16	Department of the Army U.S. Army Corps of Engineers Washington, DC 20314-1000	ER 415-1-16 30 Sep 93
	Construction FISCAL MANAGEMENT	
	Distribution Restriction Statement Approved for public release; distribution is unlimited.	

**Construction
FISCAL MANAGEMENT**

Table of Contents

CHAPTER 1. FISCAL MANAGEMENT

	Para	Page
Purpose.....	1-1	...1-1
Applicability.....	1-2	...1-1
References.....	1-3	...1-1
General.....	1-4	...1-1
Policy.....	1-5	...1-2

CHAPTER 2. SUPERVISION AND ADMINISTRATION ACTIVITIES AND COSTS

Introduction.....	2-1	...2-1
Preaward Activites	2-2	...2-1
Postaward Activites	2-3	...2-1
Field Office Operation	2-4	...2-2
Construction Phase Project Management	2-5	...2-3
Construction Division Overhead	2-6	...2-3
Damage Assessed to Contractor	2-7	...2-6
Level of Detail of Cost Accounting	2-8	...2-6
Table 2-1, Preaward Activities Performed by Construction Personnel.....	2-7	
Table 2-2, Postaward Activities Performed by Construction Personnel.....	2-9	

**CHAPTER 3. MANAGEMENT OF THE MILITARY SUPERVISION AND
ADMINISTRATION FLAT RATE ACCOUNTS**

General.....	3-1	...3-1
Military Flat-Rate Accounts	3-2	...3-1
Procedures for Corps-Wide Construction S&A Management	3-3	...3-2
Military Projects not Subject to Union Flat-Rate	3-4	...3-4
Table 3-1, Appropriations Subject to Military Construction (MILCON) Flat Rate Procedures	3-5	
Table 3-2, Appropriations Subject to O&M Flat Rate S&A.....	3-6	
Table 3-3, Appropriations Subject to Uniform Flat Rate S&A.....	3-7	

CHAPTER 4	<u>MANAGEMENT OF MILITARY CONSTRUCTION</u>		
	<u>"AT-COST" SUPERVISION AND ADMINISTRATION</u>		
	General.....	4-1	4-1
	Sources of Income for S&A Service	4-2	4-1
	S&A Costs and Estimates	4-3	4-1
	Reviews of S&A Costs	4-4	4-1
	Examples.....	4-5	4-2
CHAPTER 5	<u>OVERVIEW OF ACCOUNTING FOR MILITARY CONSTRUCTION</u>		
	<u>COST; OTHER S&A AND CONSTRUCTION-RELATION INFORMATION</u>		
	Purpose.....	5-1	5-1
	Department of Defense Policy for		
	Construction Accounting, USACE	5-2	5-1
	Construction Work Agreement	5-3	5-9
	Current Working Estimate (CWE)	5-4	5-11
CHAPTER 6	<u>MANAGEMENT OF CIVIL WORKS' AND "SUPPORT FOR OTHERS"</u>		
	<u>CONSTRUCTION SUPERVISION AND ADMINISTRATION</u>		
	General.....	6-1	6-1
	Source of Income for S&A Services	6-2	6-1
	Estimate of S&A Costs	6-3	6-1
	Management of CW and SFO S&A	6-4	6-1
	Table 6-1.....		6-1
CHAPTER 7	<u>FORECASTING OF CONSTRUCTION PLACEMENT</u>		
	General.....	7-1	7-1
	Steps for Placement Forecasting	7-2	7-2
	Estimation of Placement	7-3	7-2
	Update of Placement Schedules	7-4	7-3
	AMPRS Reporting	7-5	7-4
	Performance Indicators	7-6	7-4
	Statistical Analysis	7-7	7-4
CHAPTER 8	<u>ACQUISITION/ESTABLISHMENT OF FIELD CONSTRUCTION OFFICES</u>		
	Policy.....	8-1	8-1
	Advance Planning	8-2	8-2
	Alternative Sources of Office Space	8-3	8-2
	Hazardous, Toxic and Radiological		
	Waste Removal Projects	8-4	8-4
	Operations and Maintenance Costs	8-5	8-5
	Restrictions.....	8-6	8-5
	Factors to Consider for Office Suitability ..	8-7	8-6

Para Page

CHAPTER 9 ACQUISITION OF ASSETS OTHER THAN FIELD OFFICE

General.....	9-1	...9-1
Capital Assets	9-2	...9-1
Alternatives to S&A Funding	9-3	...9-1
Additional Funding Sources	9-4	...9-2
APPENDIX A Reference		A-1
Glossary		G-1

CHAPTER 1
FISCAL MANAGEMENT

1-1. **Purpose.** This regulation establishes the policies and procedures to be used in the financial management of the construction function at the district/operating major subordinate command (MSC) level. It also establishes procedures for the management of the supervision and administration (S&A) of construction accounts at these levels.

1-2. **Applicability.** This regulation applies to all HQUSACE/OCE elements, major subordinate commands, districts and field operating activities (FOA) responsible for the supervision and administration of construction.

1-3. **References.** See Appendix A.

1-4. **General.**

a. The objective of this regulation is to provide guidance to construction managers on the effective management of construction resources within budgeted costs. The key elements of an effective financial management process are:

(1) Individual accountability for management of costs.

(2) Preparation of a comprehensive Construction Division budget and managing within it. Accurate and timely forecasting of management costs and contract placement. Effective use of accounting systems and reports to monitor costs is critical for good management and budget execution.

(3) Management of construction personnel and resources to ensure that products and projects, as defined in the Project Management Plan (PMP), are completed within budget, on schedule, and of good quality. See ER 5-7-1 (FR) for preparation of a PMP.

(4) Recording of costs to provide sufficient and reliable historical data for use in preparation of future budget estimates.

(5) Integrity and accuracy in charging of work to the appropriate account and inputting data to the appropriate database. Incorrect charging of costs may result in violations of the Anti-Deficiency Act (31 USC 1341/1517) or the Purpose Statute (31 USC 1301).

ER 415-1-16
30 Sep 93

(6) Consistency with the District Operating Budget required by ER 37-1-24 (also see EP 37-1-3) and Project Management System as defined in ER 5-7-1 (FR).

b. Construction Division as used in this regulation is that organization within a Corps of Engineers district or operating MSC which is responsible for the oversight of the construction program including Military, Civil, Operations and Maintenance, Superfund and "Support for Others" (SFO) construction. It shall mean Construction-Operations (Con-Ops) Division when appropriate, and includes all subordinate field offices which are responsible for technical management of its projects/programs.

c. Supervision and administration (S&A) as used in this regulation consists of those activities performed and costs incurred which are generally considered as construction functions, and which are defined in ERs 37-2-10 and 37-345-10 as allowable charges to the S&A accounts. See Chapter 2 for a discussion of S&A activities. In the event of a conflict between Chapter 2 and the ERs referenced in Appendix A, information in the ERs shall govern.

1.5. Policy.

a. Operating budget. In accordance with ER 37-1-24 and district or MSC guidance, each Chief of Construction shall prepare and maintain an annual operating budget for all construction-related activities. This budget shall be prepared as a part of the district's total operating budget for the fiscal year. The objective of the construction operating budget is to provide the Chief of Construction with the ability to direct and control the resources necessary to accomplish Construction Division's missions, and to provide the Chief with the ability to plan, organize and staff his operations. The operating budget shall include all construction-related costs, direct and indirect, as well as all funding sources; and it shall consider all income sources, which may differ from the funding sources. It shall include estimates for all the activities in which construction personnel will be involved during all phases of the life cycle of all projects, regardless of the type of funds used to pay for specific activities. All construction-related activities for which the Chief of Construction is responsible will be managed within the cost limits budgeted for them. As a minimum, the following items will be considered in preparing and managing the budget:

(1) Preparation of detailed budget estimates for the construction activities/products for each project and all separate programs/missions. The costs budgeted and the level of detail required for a given work item/contract shall be consistent with the PMP.

(2) All district S&A expenditures for military projects subject to flat rates, based on ceilings established by HQUSACE and the MSC (see Chapter 3).

(3) S&A costs for Civil Works will be based on the actual costs of managing a project (see Chapter 6).

(4) S&A costs for SFO and support for other DOD customers (i.e., those not under the Flat Rate Accounts) will be based on the actual costs of managing a project. See Chapter 4 and Chapter 6 for a discussion of "at-cost" projects.

(5) To the maximum extent possible, costs will be charged directly to the benefitting project or to the appropriate flat rate S&A account. (Note that certain "overhead" offices are charged to General and Administrative overhead and are not generally allowed to charge directly to projects. Requests for exception shall be submitted through HQUSACE, CEMP-C for review; then to CERM-F for approval.) Projects performed "at-cost" will generally require more detailed, project-specific record-keeping than those performed at a flat rate. Costs which cannot be readily identified with a specific project, e.g., overhead, will be distributed based on direct labor charges (see EP 37-1-4).

b. Responsibilities. The Chief of Construction at each district is responsible for the items listed below. With specific regard to budget preparation and execution, the chief should delegate authority and responsibility to the lowest level of management which has the ability to control such costs. The Resource Management Office is responsible for timely and accurate reporting of financial data in a format usable by Construction Division managers. In performing these responsibilities, construction managers at all levels should refer to ER 5-1-7 (FR) for guidance in regard to the following: project Work Breakdown Structure (WBS), resource planning and cost accounting, responsibilities of various functional elements as described in the Responsibility Assignment Matrix (RAM).

(1) Preparation of input by Construction Division during formulation of the district operating budget. This consists of preparation of an operating budget for Construction Division as described previously, plus any additional financial planning and information required by the Deputy District Engineer for Programs and Project Management (DDE(PPM)). The Chief of Construction will take an active role in the preparation of project study budgets, and baseline budgets and schedules to assure that adequate funds are included for construction personnel to successfully accomplish their missions. Although the project manager is responsible for overall project costs, the Chief of Construction is responsible for the preparation of budgets for, and execution of construction S&A.

(2) Stewardship of the military-related S&A accounts during the budget preparation process. During budget preparation, the Chief of Construction shall review and evaluate all items in the district operating budget which will be funded from S&A income and reconcile all proposed costs with the anticipated S&A income, to assure that mandated S&A ceilings are not exceeded.

(3) Monitoring of actual charges to the military S&A accounts throughout the budget year to assure that S&A ceilings are not exceeded; recommendation to the DDE(PPM) of actions necessary to assure that actual costs do not exceed the district available S&A income; monthly preparation and reporting to MSC of the schedule of placement and expenses. See Chapter 3 and Chapter 7.

(4) Stewardship of construction S&A accounts for Civil Works and Support for Others, and support for other DOD customers (who are exempt from flat rates) during the budget preparation process. The Chief of Construction shall review and evaluate all items in the district operating budget which will be funded from S&A income and reconcile all proposed costs with the budgeted income.

(5) Monitoring of actual charges to the S&A accounts for Civil Works, Support for Others, and support for other DOD customers throughout the budget year to assure that budgeted amounts are not exceeded; and recommendation to the DDE(PPM) of actions necessary to assure that actual costs do not exceed available income.

(6) Review and management of budgeted construction division costs throughout the fiscal year; and provision of appropriate guidance to ensure that actual costs remain within budget and other established limits.

(7) Continuous monitoring of actual and projected construction placement for all programs and projects. Make necessary adjustments to projected placement and related costs, to perform within budget. See Chapter 7, for a discussion of methods of forecasting construction placement, performance indicators and reporting requirements.

(8) Maintenance of historical records of construction-related expenses for preparation of estimates for similar projects in the future; and for feedback to the Commander, project managers, construction personnel, cost engineer and other appropriate individuals.

(9) Acquisition and maintenance of capital assets required to support the construction mission. See Chapter 8 and Chapter 9.

(10) Participation as a member of the district's project team throughout all life-cycle phases of a project, to ensure continuity and coordination among the planning, design, construction and operations/maintenance phases.

CHAPTER 2
SUPERVISION AND ADMINISTRATION ACTIVITIES AND COSTS

2-1. **Introduction.**

a. This chapter presents a detailed list of Supervision and Administration (S&A) activities, which are generally performed by construction division personnel, and costs which are incurred during the performance of S&A for construction. This is presented to ensure uniform charging procedures throughout the Corps.

b. Some activities which are not S&A are also listed to indicate that they are not to be charged to S&A accounts. However, it is not the purpose of this chapter to identify the accounts to which these non-S&A activities should be charged - refer to ERs 37-2-10 and 37-345-10 for detailed information. See also Chapters 5, 8, and 9 of this ER for discussions of other costs.

c. For this chapter the activities and costs will be categorized as follows: (See the applicable Resource Management guidance for the appropriate cost account to charge to.)

SUPERVISION AND ADMINISTRATION OF CONSTRUCTION (S&A)

Preaward Activities
Postaward Activities
Field Office Operation
Construction Phase Project Management, Project Manager
Construction Phase Project Management, By Technical Manager
Overhead
Departmental Overhead
General and Administrative Overhead
Labor Burden
Damages Assessed to Contractors
Contract Liquidated Damages
Other Damages

2-2. **Preaward Activities.** These include activities which are performed before award of a construction contract, are considered as a function of Construction Division, and are generally performed by construction personnel. Many of these activities will be charged to other than S&A cost accounts, generally to P&D for military, E&D for Civil Works. Note that not all preaward activities are listed - only those performed by construction personnel. See Table 2-1 for this list.

2-3. **Postaward Activities.**

a. These include managerial, technical and administrative activities and costs which are performed/incurred after the award of a construction contract; and which are considered a function of Construction Division, and are generally performed by construction personnel. See Table 2-2 for this list.

b. Construction related postaward activities which should not be charged to S&A include extraordinary costs (i.e., expenses such as expert witnesses, subsurface exploration, etc.,) related to defending against contract claims, management of government furnished equipment/materials when installation is not included in the construction contract, and activities which represent engineering and design during construction (EDC). These costs should generally be charged directly to the project.

c. EDC includes extensions of design, preparation of plans, specifications and cost estimates for change orders, review of contractor submittals by the designer when required to verify design assumptions, postaward value engineering costs which are not offset by savings, design-related visits to the construction site by design personnel during construction, and review of as-built drawings by government personnel. (For military projects, preparation of as-builts by government personnel or separate contract is not classified as EDC, to conform with DD Form 1391 calculations.)

d. Safety and occupational health. These costs are generally charged to the district G&A overhead account. However technical services readily identifiable with a specific project may be charged to the S&A account provided that technical support is (1) mandated by USACE requirement; and (2) has been requested and coordinated with the functional chief. ER 37-2-10, Chapter 24 provides detailed information.

2-4. **Field Office Operations.** This consists of all activities and costs for the operation of construction field offices. See Chapter 8 for information concerning the rental or acquisition of field offices. Field office operations include:

a. Building maintenance and operations, including rent and utilities.

b. Motor Pool/Vehicles lease/rental, maintenance and repairs.

c. Administrative or "overhead" labor expenses which can not be identified with a specific project and must be distributed to the projects managed by an office.

d. Office equipment and supplies: Expendable items under \$5,000; items over \$5,000 may not be purchased with S&A funds.

e. Transportation of things, communications, printing and reproduction, equipment maintenance, ADP and other contractual services.

2-5. Construction Phase Project Management.

a. By Project Manager. This includes various activities during the construction phase, but only when directly related to a specific project. Other labor by the Project Manager (PM) is charged to other appropriate district accounts.

b. By Technical Manager. This includes various activities during the construction phase, when performing duties as a member of the project management team. These include:

(1) Coordination of construction projects with the PM and other Corps elements;

(2) participation in preparation of the baseline cost estimate and Project Management Plan (PMP), including revisions;

(3) periodic progress meetings with the PM;

(4) participation in Project Review Board meetings.

2-6. Construction Division Overhead.

a. Indirect costs. These include all activities and costs at the district level, which are distributed to projects or to the flat-rate S&A accounts, but which can not be directly charged to a specific project/contract. The main indirect costs which apply to Construction Divisions are Departmental Overhead, District General and Administrative (G&A) Overhead apportioned to Construction Division, and Labor Burden. Indirect construction-related costs are first accumulated in appropriate accounts established by the Resource Management Division. The costs are then distributed as additions to direct labor charges. The method of cost distribution is explained in ERs 37-2-10, 37-345-10 and EP 37-1-4, which deal with accounting procedures, and by policies established by each MSC.

30 Sep 93

b. Departmental Overhead (DOH) (formerly "Technical Indirect Overhead"). These are expenses of the Construction Division not charged directly to projects. DOH costs are distributed to each project using direct labor as the distribution method, i.e., for each project a percentage is added to the direct labor costs to recover the technical division's costs. This percentage is in addition to Labor Burden. Personnel normally charge their labor to DOH if -

(1) the time worked on a specific project is less than one hour; or

(2) they are part of the technical division's executive or administrative staff, or they are performing supervision and administration or general secretarial support activities; or

(3) the employee is performing other work, not chargeable to a specific project. Typical specific, non-project charges to DOH include:

(a) administrative personnel and support;

(b) permanent change of station travel;

(c) various personnel-related actions and costs performed by construction division, e.g., incentives, awards performance plans and evaluations, SKAPS, contractor commendations/awards;

(d) training and attendance at professional seminars;

(e) attendance at staff meetings, conferences and hearings, staff visits; travel for temporary duty;

(f) equipment ownership, vehicle, equipment maintenance costs;

(g) expendable and minor equipment under \$5,000 not directly attributable to a project;

(h) preparation of AMPRS and other upward reports not prepared by field offices, and other construction-related reports and briefings, which include multiple projects, or are not project specific;

(i) management and man-power surveys, preparation of pamphlets, and revision of regulations;

(j) responding to congressional inquiries of a general construction nature (charge those related to a specific project as Technical Management);

(k) supplies, materials and expendable items for the "department", (charge those from central "free issue" supply rooms to G&A Overhead);

(l) transportation/shipping charges;

(m) charges for printing, communications, visual information;

(n) centralized activities benefiting a single organizational element;

(o) support contracts and Revolving Fund facility account charges.

c. District General and Administrative (G&A) overhead. District G&A costs are distributed to all technical divisions, including construction division. Construction division then distributes the costs to direct labor hours, similar to departmental overhead costs. G&A offices provide support to the technical divisions and perform other required functions not directly chargeable to specific projects. G&A offices are not generally permitted to charge directly to projects or S&A flat rate accounts.

d. Labor burden. These are expenses for various employee related costs, and for the government's contributions for various fringe benefits. These contributions are toward employee civil service retirement, leave, life insurance, Social Security tax, Medicare, severance pay entitlement, traumatic job-related injuries, and employee health benefits. This burden increases the labor costs charged to each project. The dollar values for the above burdens are accumulated in special accounts in the Corps Revolving Fund, and then distributed as expenses are incurred.

2-7. **Damages Assessed to Contractor.** These are generally liquidated damages assessed during construction contracts, which usually result in a credit to project construction funds and/or S&A account(s). This category is used primarily as an accounting element, rather than as an activity. Liquidated damages for delayed performance attributable to increased S&A expenses may be credited to the appropriate S&A account under certain circumstances. Liquidated damages attributable to other expenses incurred by USACE activities or our customers will be credited to the appropriation that funded the other expenses. "Other damages"

ER 415-1-16

30 Sep 93

include actual damages which may be assessed against a construction contractor or Architect-Engineer (A-E). See ER 715-1-10 for a discussion of recoverable damages which may result from deficiencies in A-E performance. Actual damages cannot normally be collected when liquidated damages have been specified. The balance of damages in excess of increased expenses must be deposited into the General Fund of the U.S. Treasury as Miscellaneous Receipts.

2-8. **Level of Detail of Cost Accounting.** The minimum level of cost accounting is that required by ERs 37-2-10 and 37-345-10; however, each organization must keep records to a level of detail which will allow it to meet management objectives. Those projects funded by a flat rate S&A account need not be broken down beyond the level for which it is productive to maintain actual cost records. However, it may be necessary for districts to utilize a lower level breakdown for those projects where S&A costs are charged on an "at-cost" basis, e.g., to meet sponsor/customer requirements.

TABLE 2-1
PREAWARD ACTIVITIES PERFORMED BY CONSTRUCTION PERSONNEL

1. Preaward S&A activities which should be charged to the S&A account.

- Conferences of construction staffs to establish construction sequence, etc., with design personnel, and for familiarization with design requirements.

- Conducting of site visits for bidders.

- Performance of technical portion of Preaward Survey.

2. Preaward activities which should be charged to the military flat rate S&A accounts and to other than S&A for Civil Works.

- Determination of Liquidated Damages to include in the contract.

- Estimation of contract durations, including determination of adverse weather days.

3. Preaward activities which should be charged to accounts other than S&A.

- Construction Division input into the Project Management Plan (PMP).

- Reviews and analyses of plans and specifications, starting during project planning or concept design; to include biddability, constructibility, and operability (BCO) reviews of design documents, BCO backchecks, and certifications.

- Participation on Architect-Engineer (A-E) Pre-Selection Board.

- Assistance with orientation of designer(s) for large projects.

- Assistance with preparation of contract clauses.

- Obtaining of necessary leases, permits and similar project-related actions before contract award.

- Activities having to do with bid openings.

ER 415-1-16

30 Sep 93

- Construction Division assistance with negotiations for award of construction contracts.

- Design-Build Projects: During the design phase, construction personnel involved in technical support of design of these projects should be paid from design funds. After notice to proceed for construction, S&A activities by construction personnel will be paid by S&A funds.

- Request for Proposal: Preparation/Evaluation/Source Selection.

- Prequalification of bidders for construction contracts.

TABLE 2-2
POSTAWARD ACTIVITIES PERFORMED BY CONSTRUCTION PERSONNEL

Postaward activities which should be charged to the S&A account consist mainly of Contract Administration, including Quality Assurance (QA) activities, and include but are not limited to:

- Reviews of insurance certification and bonding.
- Preparation of, and execution of Quality Assurance plans.
- QA sampling and testing during construction of materials to determine suitability and compliance with plans and specifications; estimation of material/work quantities, including any required measurements or calculations by government personnel.
- QA/Quality Control (QC) coordination meetings.
- Review of QC three-phase inspections, and tracking of deficiencies. Quality verification/surveillance of contractor's QC system. Review of contractor QC reports; preparation of QA reports. Inspections and surveys - ensuring that construction is performed in compliance with plans and specifications; includes verification of layouts, benchmarks, etc.
- Preconstruction conferences.
- Oversight of relocation of residents, temporary or permanent.
- Review, approval and enforcement of contractor submittals required by contract clauses, e.g., health and safety plan, demolition plan, submittal register, warranties, plan for environmental safeguards, etc., not including submittals concerning extensions of design.
- Review and approval of construction schedules and progress charts/NAS prepared by construction contractors. Conferences with contractors to coordinate project features; enforcement of compliance with schedules.
- Review and monitoring of SF 1413 Sub-Contractor agreements.
- Review/Enforcement of contractor laboratory certifications.
- Contract administration in association with modifications to contracts.

30 Sep 93

- Resolution of contract disputes and claims, to include the cost of government personnel, expert witnesses and other administrative costs.

- Labor-related items: Ensure Davis-Bacon Act compliance, conduct labor interviews and reports, other labor-related activities.

- Management of contract funds, preparation of funds request.

- Management of contract schedules, progress charts/reports.

- Reviewing and processing of periodic progress pay estimates, verification of bid item quantities.

- Processing of routine document transmittals.

- Preparation of Construction Contractor and final Architect-Engineer performance evaluations.

- Management of contracted S&A services, e.g., third-party supervision and quality assurance of construction. This includes health and safety personnel for HTRW projects,

- Performance of actions related to default or termination of a contract.

- Supervision and/or QA of systems start-up, maintenance and operations; primarily for environmental restoration projects.

- Obtaining or provision of necessary technical guidance (i.e., technical manuals, standards, circulars, expert services, etc.)

- Specification clarifications requested by contractors.

- Routine coordination among Corps personnel, project sponsor and user(s); when extraordinary effort is necessary, charges should be to accounts other than S&A.

- Preparation and review of the daily log of construction, including routine safety inspections and comments.

- Prefinal and final inspections, and transfer of facilities to owner, with proper documentation. Verification of complete correction of final deficiency list (punch list).

- Review of operations and maintenance manuals.

- Photography/videotapes for progress reports.
- Review of "as-built" drawings prepared by the contractor.
- Warranty enforcement, including four- and nine-month inspections.
- QA of site closure and post-construction maintenance, especially at environmental restoration projects.
- HTRW construction documentation reports, including chemical and geotechnical data management, well logs, embankment criteria.
- Financial close-out of contracts.
- Review and management of potential Architect-Engineer responsibility action cases by construction personnel. Once determined to involve A-E responsibility, the S&A account may no longer be charged; EDC generally is the proper funding source.

CHAPTER 3
MANAGEMENT OF THE MILITARY
SUPERVISION AND ADMINISTRATION FLAT RATE ACCOUNTS

3-1. **General.** This chapter describes the process utilized by the Corps to manage the Military Supervision and Administration (S&A) Flat Rate Accounts. Costs for S&A are charged either at a "flat rate" or "at cost". "Flat rate" means that S&A income accrues as a percentage of the actual construction placement regardless of the actual cost of S&A for a particular project. "At cost" means that the Corps is reimbursed for the actual cost incurred in performing S&A activities for a particular project (see Chapter 4).

3-2. **Military Flat-Rate Accounts.** Several different flat rate accounts have been established for various categories of military projects as follows:

<u>Account Number</u>	<u>Account Description</u>	
VW 65	MILCON Construction	CONUS & OCONUS
VW 66	Operations and Maintenance (O&M) (includes DERP)	CONUS & OCONUS
VW 68	Rapid Response (For Hazardous, Toxic and Radiological Waste remediation program).	CONUS Only

a. All projects within a given category are charged a flat S&A rate unless a deviation is specifically approved by HQUSACE, CEMP-CM. If a deviation is approved, the new rate would apply to all construction placed after the effective date of the change. The rate is multiplied by the placement of each contract and the resulting income is credited to the appropriate account. Expenses for the month are deducted from the income, and the net gain or loss is transferred to the Corpwide central accounts which are maintained in Omaha District. The accounts are structured to group together categories of work which require similar supervision and administrative effort. For example, all Military Construction Army, Navy, Air Force, etc., are charged at the MILCON rate, while repair and maintenance work for all DOD is charged at the O&M rate.

b. The applicable flat rates are re-evaluated on an annual basis and are applicable for all DOD projects performed by the Corps. The flat rate system operates on the assumption that S&A costs for some projects will be higher than the S&A income which they generate, but will be offset by other projects which will have higher income than costs. On the average, all work within a MSC will be performed within the established rates.

ER 415-1-16
30 Sep 93

c. MILCON Flat Rate Account (VW 65). See Table 3-1 for a list of appropriations subject to the MILCON flat rate S&A account. Currently two separate flat rates apply, 6% for CONUS and 6.5% for OCONUS. This is done to account for the generally higher cost of doing business overseas. This account includes those projects defined as "Military Construction" by AR 415-15.

d. Operations and Maintenance (O&M) Flat Rate Account (VW 66). See Table 3-2 for a list of appropriations subject to the O&M flat rate account. Three separate flat rates apply: 7.5% for CONUS, 8.5% for OCONUS and 8.0% for DERP CONUS projects. The OCONUS rate accounts for the traditionally higher cost of doing business Overseas. O&M rates are generally higher than Military Construction rates, reflecting experience that supervision and administration effort for repair and maintenance type work is generally greater than for new construction.

e. Reimbursable projects are primarily funded by a Directorate of Engineering and Housing, Base Civil Engineer, or a tenant at a military installation. These projects consist mostly of repair and maintenance, and small construction projects using OMA, OMAF, RDTE, procurement or other appropriate funds provided by the sponsor/customer.

f. Rapid Response Flat Rate Account (VW 68). This S&A account is for the use of Omaha District to perform work under the Rapid Response Program for environmental remediation actions at hazardous, toxic and radiological waste sites. S&A is collected at a dual/variable rate of 15% for the first \$500,000 and 10% for amounts over \$500,000. Most types of appropriations may be used to obtain "rapid response" services: Military, Civil Works, EPA, Support for Others, etc.

3-3. Procedures for Corpwide Construction S&A Management.

a. Management of the flat rate accounts is centralized at HQUSACE (CEMP-CM). The goal of the uniform flat rate accounting procedure is to manage the Construction S&A accounts on an overall break-even basis, so as to proclude refunds or surcharges to our customers. Except for a modest positive balance of about one month's operating expense, the accounts are managed so as to minimize significant gains and losses at any given time.

b. Procedure for establishing Military S&A ceilings for major subordinate commands (MSCs).

(1) Each fiscal year (FY), MSCs with military projects are required to submit placement and expense estimates for the next FY to HQUSACE (CEMP-CM). These are then used to establish two overall

S&A rates for each MSC, one for MILCON and one for O&M work. Currently, the workload projections provided for the annual Corps of Engineers Resource and Military Manpower System (CERAMMS) manpower submission are used, so as to reduce the number of data calls to MSCs.

(2) HQUSACE establishes the construction S&A rate ceilings for each MSC. Factors considered include: budget constraints, current placement and expenses, accuracy of previous estimates of placement and expenses, size and complexity of program, manpower resources allocated, OCONUS costs, personnel benefit costs and other relevant items. Upon completion of this evaluation, HQUSACE issues construction S&A rate ceilings to the MSC by the beginning of the new fiscal year.

(3) The assigned ceilings are generally based on a percentage of the projected placement for MILCON and for O&M projects. MSCs are responsible for further assignment of ceilings to their districts. Throughout the year they shall require a monthly schedule of placement and expense from each district, showing how each district plans to stay within its assigned ceiling. Military projects performed with "at-cost" rates are not included in these ceilings.

c. Placement and expense schedules.

(1) Throughout the fiscal year MSCs are responsible for monitoring their districts' progress in meeting the assigned ceilings by reviewing the monthly reports of placement and expenses. If income changes, adjustments in expenses must be considered. In general, decreases in S&A costs will be made commensurate with shortfalls in placement to maintain the assigned S&A ceiling. Conversely, when placement increases, additional costs may be authorized, with S&A rate ceilings to be adjusted by CEMP-CM. MSCs may allow fluctuations among their districts at a level that does not jeopardize their ability to provide a quality product.

(2) At the MSC level, should there be a fluctuation in either placement or expenses which will cause the MSC to exceed its assigned S&A ceiling by 0.2%, or fall 1.0% below it, CEMP-CM shall be notified immediately. The notice shall include a full explanation of the circumstances and corrective steps which will be taken to get back within the rate ceilings. This is required since fluctuation by one MSC requires a reanalysis of the entire account to ensure that the overall Corps' S&A rate is not exceeded. See Chapter 7 for additional reporting requirements.

c. Management of military S&A costs and income.

(1) Construction S&A income is generated by applying a flat rate to all construction costs for a project except S&A and EDC. (If a change of a flat rate is approved by HQUSACE, the new rate shall apply to construction placed after the effective date.) Costs directly associated with the accomplishment of S&A activities will be charged directly to the appropriate Revolving Fund Flat Rate S&A Account (VW 65 or VW 66).

(2) Construction S&A income, together with the actual expenses chargeable to S&A for a district/operating MSC are consolidated by the district/MSA in the appropriate S&A account. A district earns S&A income on the accrued value of work performed, and it can generally claim credit at the end of a month for amounts proportionate to the increases in placement of the underlying construction projects. Details on the accrual method of accounting can be found in EP 37-345-1 and ER 37-345-10. At the end of each month, the loss or gain in each of the accounts, i.e., the difference between the actual expenses incurred and the income, is transferred to or from the Corps central MILCON and O&M S&A accounts, currently maintained by Omaha District.

d. Authority to deviate from prescribed rates. For military projects, all construction S&A rates are established at HQUSACE in coordination with DOD. The established rates are based on the assumption that all eligible projects will be performed at that rate; therefore, MSC's are not authorized to negotiate separate rates for projects covered by flat rate accounts. Use of a lower S&A rate in order to maintain a current working estimate (CWE) within the programmed amount is not normally permitted. As a rare exception, minor deviations may be requested from HQUSACE, CEMP-CM.

3-4. Military Projects not Subject to Uniform Flat Rate. (See Table 3-3.) Some military projects are charged S&A at actual cost (see Chapter 4).

TABLE 3-1
Appropriations Subject to Military Construction (MILCON)
Flat Rate Procedures

(CERM publishes Treasury Department appropriation codes; AMPRS fund types are listed in EP 415-345-2, AMPRS Data Dictionary)

Title

Procurement, Defense Agencies	
Military Construction, Defense Agencies (e.g., Communications, Intelligence, Logistics, Mapping, Medical, Nuclear, Dependents Schools (DODDS), etc.)	
North Atlantic Treaty Organization Infrastructure, Defense Military Construction, Reserve Components General, Defense Military Construction, Troop Support Agency	
Base Closure Program, Other	
MILCON, Navy	Weapons Procurement, Navy
MILCON, Naval Reserve	Navy Stock Fund
Base Closure Program, Navy	
Procurement, Marine Corps	
Procurement of Aircraft and Missiles, Navy	
Aircraft Procurement, Navy	
Ship-Building and Conversion, Navy	
Navy Management Fund	
Military Construction, Army	Missile Procurement, Army
Base Closure Program, Army	
Procurement of Equipment and Missiles, Army	
Aircraft Procurement, Army	
Procurement of Weapons and Tracked Combat Vehicles, Army	
Procurement of Ammunition, Army	
Army Family Housing (Construction)	
Army Management Fund	
MILCON, Army Reserve	
Army Reserve Training Centers	
MILCON, Army National Guard	
Army National Guard Equipment	
MILCON, Air Force	Production Base Support
Base Closure Program, AF	Air Force Management Fund
MILCON, Air Force Reserve	
MILCON, Air National Guard	
Missile Procurement, AF	
Aircraft Procurement, AF	

ER 415-1-16
30 Sep 93

TABLE 3-2
Appropriations Subject to O&M Flat Rate S&A

(CERM publishes Treasury Department appropriation codes; AMPRS fund types are listed in EP 415-345-2, AMPRS Data Dictionary)

Rapid Response Program for Hazardous & Toxic Wastes
(NOTE: Projects in this program charge a 15%/10% flat rate. They are used for military installations (DERP), Civil Works and EPA Superfund; other civilian uses are possible, but first require approval by HQUSACE (CEMP-R). Missouri River Division, Engineering Division, can provide current information.)

Operations & Maintenance (O&M), Defense Agencies and Dependents Schools (DODDS)
Research, Development, Test & Evaluation (RDT&E), Defense Agencies: when used for O&M projects
O&M for Troop Support Agency
Defense Business Operations Fund (DBOF)
Real Property Maintenance, Defense (RPMD)

Base Closure Program environmental projects
Defense Environmental Restoration Program (DERP), DOD
DERP, Formerly Used Defense Sites
DERP, Army Installation Restoration
DERP, Air Force Installation Restoration

O&M, Marine Corps Reserve	O&M, Navy Reserve
O&M, Army National Guard	O&M, Air National Guard
O&M, Army Reserve	O&M, Air Force Reserve

O&M, Navy
O&M, Marine Corps
RDT&E, Navy
Other Procurement, Navy

O&M, ARMY	O&M, Air Force
Other Procurement, Army	Other Procurement, Air Force
RDT&E, Army	RDTE, Air Force
Family Housing O&M, Army	

NOTE: Defense Business Operations Fund has replaced Marine Corps, Navy, Army, and Air Force Industrial Funds

TABLE 3-3
Appropriations Not Subject to Uniform Flat Rate S&A
(The Following are not All-Inclusive)

(CERM publishes Treasury Department appropriation codes; AMPRS fund types are listed in EP 415-345-2, AMPRS Data Dictionary)

TITLE

Corps of Engineers Civil Works Activities: New Construction, Operations & Maintenance, Plant Replacement and Improvement Program (PRIP), Mississippi River and Tributaries, and Waterways Trust Fund

Military Construction for U.S. Forces OCONUS, when funded by Host Nation

Emergency/Wartime Mobilization Exercises

Disaster Recovery Operations

U.S. Soldiers' and Airmen's Homes

Cemetery Funds

National Security Agency

Foreign Military Sales and Assistance Programs

Foreign Government Construction & Engineering

Environmental Protection Agency projects and other "Support for Others" (exclude Rapid Response program)

Civil Defense Activities

Support of non-DOD federal agencies/activities, such as:

Department of Energy: Military and Civilian Projects

Department of the Interior, National Park Service

Federal Emergency Management Agency

Agency for International Development

National Aeronautics & Space

Administration Public Health Service

United States Information Agency

United Postal Service

Support of other Cabinet-level Departments

Support of other Governmental and non-Governmental activities, e.g., States, Municipalities, Commercial Firms, Individuals

Non-Appropriated Funds Activities

CHAPTER 4
MANAGEMENT OF MILITARY CONSTRUCTION
"AT-COST" SUPERVISION AND ADMINISTRATION

4-1. **General.** This chapter provides guidance for the management of supervision and administration costs for those military-funded projects where actual S&A costs are charged "at-cost".

4-2. **Sources of Income for S&A Services.** S&A for "at-cost" military projects is charged on the basis of actual costs. Construction funds are used to pay for S&A directly. It is the responsibility of the district/MSA to ensure that the amount charged is adequate to pay for all direct and indirect S&A costs. If liquidated damages for S&A are collected, these may be used to re-pay the costs of additional S&A costs incurred. Any amount beyond this is credited to the "miscellaneous receipts account" or returned to the customer as appropriate. See Chapter 2 for additional information.

4-3. **S&A Costs and Estimates.**

a. Estimates of actual costs to be incurred during the life of the construction project are established during the baseline budget process, and are included in the Project Management Plan (PMP). These estimates include all direct and indirect costs associated with the performance of S&A for construction.

b. Costs associated directly with the accomplishment of S&A activities will be charged to the project using the appropriate S&A cost account. Each district will compare monthly actual costs to the baseline estimate, and must take appropriate corrective action if an unacceptable deviation occurs.

4-4. **Review of S&A Costs.** Districts and MSAs shall review actual S&A costs on a monthly basis and compare them to income generated. HQUSACE will review S&A cost reports by MSAs on a quarterly basis at the Command Management Review. The ability of an MSA to manage its workload and the size of its workforce within its budgeted S&A income is an important element in its overall performance rating.

ER 415-1-16
30 Sep 93

4-5. **Examples.** Examples of military appropriations whose projects are charged "at-cost" S&A are listed in Chapter 3, Table 3-3. The most common are Nonappropriated Funds and Foreign Military Sales. In special cases, most other military appropriations may have construction performed with "at-cost" S&A charges; generally, this requires special approval from HQUSACE, CEMP-CM. Examples are chemical demilitarization facilities, other facilities constructed with innovative technologies, and facilities in locations presenting unusual physical and/or logistical requirements.

CHAPTER 5
OVERVIEW OF ACCOUNTING FOR CONSTRUCTION COSTS; OTHER
S&A AND CONSTRUCTION-RELATED INFORMATION

5-1 **Purpose.**

a. This chapter provides construction managers with an overview of DOD, DA and USACE requirements for accounting and capitalization of military construction costs. It also discusses several S&A and construction-related items which do not fall within the scope of the other appendices.

b. The General Accounting Office and DOD require that the total costs of a construction project be accounted for and recorded in the owning service's real property records. This is to assure an accurate valuation of the facility(ies) after construction and/or other work has been completed. The Corps is required to provide this information to its customers at the end of a project, and in particular to military and other federal departments/agencies.

c. The total capital cost of construction reported in transfer documents shall consist of the costs of design and engineering, procurement, construction, S&A, DEH/BCE contributions, "unfunded costs", and any other costs recognizable as adding to the value of the facility(ies)/assets. Guidance on this subject is provided below. CERM-F is the source for detailed guidance and procedures relating to the actual accounting.

5-2. **Department of Defense/USACE Policy for Construction Accounting.**

a. Capitalization of construction costs.

(1) General. USACE has implemented the concept of capitalization, promulgated by DOD, which recognizes that the total costs incurred for the construction or acquisition of a capital asset are to be recorded and included in the capital asset records of the organization which manages it. Not included are costs incurred in the advance planning, programming and budget phases. These are considered as expenses and are generally paid by operating funds, e.g., military O&M. Nearly all costs above district level, e.g., MSC and HQUSACE, are considered as an expense, in contrast to those for Districts, whose efforts/costs are considered as project investments. The accounting and related work/cost breakdown structure are the responsibility of the Project Manager, Technical Manager and Resource Management Officer.

b. The concept of investment (capitalization) versus expense has shaped the S&A costing policy. It is the foundation upon which the military flat-rate system was developed, as well as the Civil Works and "Support for Others" at-cost S&A charges. The military flat-rate system levels construction-related costs throughout the Corps so as to minimize significant gains or losses to the centralized military S&A accounts.

c. After project completion and transfer of assets to the customer/sponsor, the project cost is to be removed from the Corps "Work in Progress" General Ledger Account to prevent double-counting of assets. Immediately upon completion of both the initial and final DD Form 1354 transfer documents, Construction Division will assure copies are provided to the Resource Management Office to allow timely updating of the general ledger accounts.

(2) Military projects and military "Support for Others"

(a) DOD Manual 7220.9-M, Chapter 77, provides basic guidelines on accounting for military construction. Additional guidance is provided in AR 37-1, Army Accounting and Fund Control, Chapter 18, "Fixed Assets". Corps Districts which perform work for Army, Reserve and National Guard military installations also need to refer to Technical Note 405-80-02, Executive Summary of Real Property, issued by the Army Center for Public Works (CECPW-FM-A). This document summarizes real property management responsibilities, including accounting for it and preparation of DD Form 1354, Transfer and Acceptance of Military Real Property. ER 415-345-38, Transfer and Warranties, provides detailed procedures concerning transfer of completed construction.

(b) Upon completion of a project, the responsible District shall report all costs incurred during design, procurement and construction to the military customer. This is generally done at the time of transfer, with DD Form 1354 and other appropriate documentation. Often, interim and final versions are prepared, in which case the final must contain the complete costs. Costs of claims, some of which may not be settled until a few years after completion of construction, must also be added to the total. Every time a DD Form 1354 is provided to the customer/owner, the appropriate District Resource Management Office shall be notified. This is necessary to ensure prompt updating of the "Work in Progress" General Ledger.

(3) Civil Works and non-military "Support for Others." The total costs of completed Civil Works projects must be accounted for in a similar process to that for military projects. Normally, planning and predesign costs are not considered project costs, even when funded from the same appropriation used to construct the

project. Even those projects which are Federally operated and maintained typically involve cost-shared construction. An example is navigation projects, which use Federal funds and either non-Federal funds or Inland Waterway Trust Fund receipts.

(a) Upon completion of such projects, an accurate accounting of pre-construction engineering and design, construction, engineering and design during construction (EDC) and contract S&A costs incurred by the Corps must be furnished to the non-Federal sponsor. This requirement is included in the project cooperation agreement executed by the Department of the Army and the non-Federal sponsor, which obligates the latter to pay a percentage share of these costs. For those inland navigation projects which are cost-shared with the Inland Waterways Trust Fund, no formal agreement is executed for construction; the Inland Waterways Users' Board, acting in lieu of a non-Federal sponsor, is kept informed of project costs as work proceeds.

(b) Planning and predesign costs for most types of Civil Works projects are also typically cost-shared with a non-Federal sponsor, but at a different percentage share. Although they are generally not capitalized, such costs must be accurately accounted for, since they are subject to a separate, formal cost-sharing agreement.

(c) For non-military "Support for Others" activities, which may or may not involve construction, a similar written agreement with the non-military funding agency specifies the acceptable method of accumulating costs.

b. Construction costs for military projects; application of S&A. DOD 7220.9-M, Chapter 77, describes the most frequent types of construction-related costs paid from the appropriation for a military project. The appropriate costs should appear in the project's Current Working Estimate (CWE), and be updated as necessary (see also paragraph 4). The construction-related costs include, but are not limited to:

(1) All materials, supplies, contract labor and other services applicable to construction (usually combined in a contract). (All are subject to S&A charge.)

(2) All items of installed capital equipment not otherwise funded by MILCON. (Paid by sponsor's or installation's O&M or RDTE account.)

(3) Transportation costs applicable to materials, supplies, installed capital-type equipment, and government-owned equipment. (subject to S&A)

(4) Direct labor costs of construction apart from the primary construction contract, including construction units composed of foreign nationals, but excluding U.S. military labor. (S&A costs are applied if Corps personnel perform any of the S&A functions listed in the chapter "Supervision and Administration Activities and Cost Accounts.")

(5) That portion of installation overhead or support costs that can be identified as representing additional costs that would not have been incurred, were it not for the project (not subject to S&A).

(6) Administrative Military Interdepartmental Purchase Requests (MIPR) that are solely for the purpose of transferring project funds for utilities used during construction will not be subject to the S&A flat rate.

(7) S&A costs - those related to the primary MILCON contract are charged to project construction funds through the appropriate Supervision and Administration account. S&A costs incurred for other construction-related activities, e.g., an O&M repair project, are generally charged to the project customer's/sponsor's or military installation O&M funds.

(8) Costs applicable to the operation and maintenance of government-owned equipment are chargeable as a construction cost, to be computed on an hourly rate (not subject to S&A, unless USACE personnel perform related S&A functions, e.g., supervision, coordination, training).

(9) Unfunded costs - effort, materials and supplies used in support of construction which are paid from appropriations other than Military Construction (MILCON); and which are not reimbursed by appropriations used for other types of military construction work, e.g., OMA, OMAF, RDTE. Additional information, including how to charge S&A, is provided further in this section.

c. Efforts financed by other than Military Construction (MILCON) appropriations. Quite often, a major project financed by MILCON funds is combined into a contract with one or more projects or work items paid from different funds, which are provided by the sponsor or installation. Also, many military projects constructed by the Corps are financed entirely with non-MILCON funds. Construction managers need to be familiar with the following information when dealing with military clients. For MILCON

projects, DD Form 1391, Military Construction Project Data summarizes items paid by these funds. Most of the items below may be financed either with MILCON or non-MILCON funds. Specific details and guidelines not covered below should be referred to AR 415-15 and to the Project Manager (PM). The actual charging of S&A is performed by CERM, in coordination with guidelines provided by the PM and Chief of Construction.

(1) Non-MILCON, non-family housing military projects. When the funded cost of a project is less than the amount specified by law (currently \$300,000), the project is to be financed from applicable Operation and Maintenance (O&M) appropriations; Research, Development, Test and Evaluation (RDT&E) appropriations; or Defense Base Operations Fund (DBOF) as appropriate.

(2) Equipment and funding.

(a) Movable equipment - these are items of equipment that are movable in nature and are not affixed as an integral part of a facility. This equipment includes all types of production, processing, technical, training, servicing, and RDT&E equipment.

(b) Detachable equipment - any operational equipment for which installation mountings and connections are provided in the building design, and which is detachable without damage to the building or equipment.

(c) Both types of equipment may be financed from applicable O&M, RDT&E procurement, DBOF or MILCON appropriations, as appropriate. Cost of alterations to install or relocate this equipment shall be financed from the same appropriations.

(3) Examples of such alterations are:

(a) Prefabricated screens, partitions, platforms, and shielding for electromagnetic radiating services.

(b) Temporary removal and re-installation of portions of existing walls, roofs, utility systems, and appurtenances to permit installation of equipment.

(c) Secondary utility work necessary to connect equipment to existing utilities services within a facility between the primary entry or source of utilities into the structure, and the equipment to be served.

(4) Family housing - all such projects shall be funded from applicable family housing appropriations. Guidance concerning family housing efforts is addressed in DOD Instruction 7150.6 and DOD 7110.1-M, as well as applicable Air Force, Navy, Army regulations, e.g., AR 210-50.

(5) Pollution abatement, energy conservation, and occupational safety and health activities - Projects for these activities may be funded from other than military construction appropriations, when the cost of a project:

(a) Is funded from the proceed of sales of recyclable material in accordance with 10 USC 2577, DOD Instruction 7310.1, and applicable Army, Air Force or Navy regulations.

(b) Does not exceed 50 per cent of the amount established by law as a maximum amount for minor construction projects.

(6) "Unfunded" costs are effort, materials and supplies used in support of military construction work which are financed by appropriations other than military construction (MILCON); and which are not reimbursed by the other appropriations available for military construction work described previously. However, such costs must be capitalized as part of the value of the real property investment. If the Corps incurs S&A costs related to "unfunded costs", the installation or project customer/sponsor should be charged, typically using appropriations such as O&M, RDT&E, procurement or DBOF funds.

(a) Examples of common unfunded costs:

- Costs financed from military personnel appropriations, e.g., salaries (troop labor).

- Costs applicable to the depreciation of Government-owned equipment in accordance with hourly rates determined per Chapter 26 of DOD 7220.9-M, section "Asset Use Charge". See also applicable USACE publications, e.g., EP 1110-1 series "Construction Equipment Ownership and Operating Expense Schedule".

- Gifts from private parties.

- "Free Issue" materials supplies, and items of installed capital equipment that have been obtained specifically for a project on a non-reimbursable basis, either as excess distributions from another Military Department or Defense Agency, or as excess distributions from other Government agencies. Items obtained from Property Disposal Offices are typical examples of "free issue".

(b) For S&A purposes, unfunded costs are treated as:

- Subject to S&A charge (payable from sponsor's/ installation's operating funds) e.g., "Free-Issue" equipment, which requires S&A effort or costs for handling, storage and installation.

- Not subject to S&A charge, e.g., the salaries of military personnel contributing to a project. However, S&A effort to supervise, inspect and train construction troops is chargeable. Actual S&A costs are to be reimbursed, unless agreed to as flat-rate S&A prior to construction. This is due to the considerable effort usually expended in connection with troop construction.

(7) S&A for government-furnished equipment and materials (GFE/GFM) paid from other than project funds (non-MILCON). GFE/GFM are equipment and materials purchased by the government and provided for use in construction or HTRW removal/remedial actions, e.g., gravel, soil, piping, mechanical or electrical equipment, etc. They are used frequently in military construction projects, occasionally in Civil Works projects, and may be required for some DERP, EPA or other HTRW projects. The cost of handling and installation of GFE/GFM is normally included in a contract to pay the constructor for his efforts. Some or all GFE/GFM used in a project may be provided by the sponsor or user, who procured it with non-project funds. Since S&A effort by the Corps is usually required for inspection, storage, handling, accounting, etc. the Corps collects additional S&A from the customer. This is separate from the S&A charges for the primary project, and is based on a fixed rate or at actual cost, as agreed upon prior to construction.

5-3. **Construction Work Agreement.** "Primary Facility/Support Facility", "Permanent Features", "Placement" - these are general terms used to denote the performance of construction, whether accomplished by a contractor, government labor or other means.

a. The definitions of "construction" and "construction project", especially for military applications, are provided in the "Glossary". They are based on those in ARs 415-15 and 415-35.

b. A "construction contract" for purposes of this regulation is a formal, legally binding agreement between the Corps and a private firm, whereby in return for payment, the firm agrees to furnish all materials, equipment, labor, supervision and other necessary services in order to provide specified end products/facilities, and/or accomplish specified other work. From a financial point of view, a contract can be treated as an account in which all the contractor's costs are consolidated, usually at a fixed price - the contract amount. The contractor's quality

ER 415-1-16
30 Sep 93

control (QC) is included in this amount; the government's quality assurance (QA) is charged as part of S&A. S&A is applied either as a percentage of the contract amount or as actual costs added to the contract amount.

c. "Placement" is the term used to measure the amount of work accomplished at a given point in time, either actual value or as a percentage of the total. It is primarily used to compare actual to scheduled construction accomplishment, and to compute a contractor's earnings.

d. The terms "Primary Facility/Support Facility" are taken from the DD Form 1391 programming document for MILCON projects. These are the Principal item(s) of construction, e.g., a building and supporting features, e.g., exterior utilities. They are also often referred to as "permanent features".

e. Although they are not formal contracts, construction Projects accomplished by government forces, and managed or coordinated by the Corps are treated similarly to formal contracts. Certain costs which are paid by non-project funds are not included in the total cost, e.g., military labor or government-furnished materials provided by non-project funds. These costs are to be capitalized upon completion of a project, but do not count toward the actual project budget/appropriation. However, they generally are counted for purposes of calculating S&A earnings. The details vary according to the circumstances of the project, and need to be determined by the project manager prior to contract award.

f. Contracts with private sector firms for removal or other remediation of Hazardous, Toxic, or Radiological Wastes (HTRW) are also treated as construction contracts, when they require S&A effort by USACE personnel. A considerable amount of HTRW work is performed with service/delivery-order contracts. Costs for S&A effort are assessed and collected in the same manner as for other "at-cost" projects. If the work is performed by government forces, e.g., DEH or BCE personnel, the labor, materials and other related costs are dealt with as if they were a contract. In those cases where the work is funded/contracted by another agency without Corps involvement in the design or procurement process, but whose execution the Corps manages, the Corps charges S&A at cost or at a rate determined prior to start of work. Some EPA Superfund projects, as well as some work for states and local governments are accomplished in this way.

g. In military construction, the appropriation(s) which fund a contract usually determine the S&A rate(s) which may be charged. Several different types of appropriations may be included in a particular contract. Each must be tracked separately due to "color of money" considerations and because different S&A rates usually apply.

h. Determination to charge S&A for construction-related efforts. Various "other" or "unfunded" costs which may not appear in a CWE are sometimes subject to S&A charges, and not subject at other times. If they are in the scope of work in the DD Form 1391, S&A charges apply; if not, charges apply if there is a need to expend S&A effort in connection with them. In questionable cases, the decision as to when S&A should be charged for non-MILCON items usually lies with the MSC Commander, and should be delegated to the District Commander. In deciding whether to charge S&A for minor efforts, consideration needs to be given to the factors surrounding a project, including good customer relations.

5-4. Current Working Estimate (CWE): Policy for Construction Projects.

a . References.

(1) AR 415-17, Cost Estimating for Military Programs.

(2) ER 415-345-42, Cost Estimating and Reserves for Contingencies.

b. The Current Working Estimate (CWE) is the official value used to establish total project cost using construction funds (design funds not included). The following procedure and guidance is written primarily for MILCON projects; however, it is to be used for other military-funded projects to the extent applicable. Prior to construction contract award, the district reported CWE is the most current estimate of the full scope of the Military Construction Authorization Act (MILCON) line item as defined by the DD Form 1391.

(1) After construction contract award the district reported CWE is the most current estimate of the construction contract amount and associated markups defined below. This is especially critical since it defines how much the project construction cost estimate is over or under the line item amount specified in congressional committee reports or the Program Amount (PA).

(2) The breakouts required below are for utilization in computer applications, for requesting funds from HQUSACE, and for reporting project progress. Breakouts for the ENG Form 3086 processor, the Microcomputer Aided Cost Engineer System (MCACES) and other CEMP-EC cost estimating require further breakdown and are not addressed here.

c. Life cycle primary breakdown. All district and operating major subordinate command (MSC) CWE calculations for the project life cycle shall conform to the breakdown as listed on the DD Form 1391, i.e.,

(1) estimated cost of construction (ECC) at award.

(a) Primary facility.

(b) Support facilities.

(2) Contingency. A fixed percentage of the ECC.

(3) Supervision and Administration (S&A) or Construction Management (CM). Use the S&A flat-rate (6% CONUS and 6.5% OCONUS) percent of the sum of the ECC and contingency.

d. Further breakdown requirements. CWE breakdown is required, in order of breakdown, for the following:

(1) Funding source. Each funding source must have its own breakdown. After the primary funding source line items are listed and totaled for the CWE to be compared with the PA, other funds should then be broken down using the same breakdown rules as the primary appropriation.

(2) Contract. Under a funding source, separate breakdowns shall be used if there exists more than one construction contract, and if a construction contract is to be funded with more than one appropriation, the contract costs would appear more than once, under each funding source breakdown.

(3) Contract (phase and/or part). Further, there may be special considerations for which a third level of breakdown is required. Under each funding source would be each contract; and under each contract would be a breakdown by location, incremental construction and/or incremental funding.

e. Breakdown at bid opening and thereafter. As a minimum the three categories of the CWE (see "c(1)" through "c(3)" above) shall be broken down into the categories displayed below if the category exists for the contract.

(1) Award ECC has four (4) possible categories:

(a) Contract cost. Actual award contract cost for all funds to be paid to the primary contractor and the primary contractor's subordinates whether obligated at time of award or to be obligated later. Line item breakouts include the following:

- Primary facility
- Support facilities.
- Additive/optional/alternate bid items. Use the full scope package combination prior to award. Include known changes (contract options to be exercised with construction funds after award of the basic contract). After award combine into "(a)(1)" and "(a)(2)" above.
- Turnkey design. Actual Award Architect-Engineer (A-E) cost (for "Design-Construct" or "Turnkey" only).

(b) Support contracts. Actual Award Costs For Support Contracts (Work Orders) Anticipated at Time of Award. List separately. Some examples include the following: government furnished material (GFM), training, start-up operations, interim O&M, preparation of training and operation manuals, utility contracts, local fees, permits, taxes, surveys, soil borings, lab reports, and unusual specialized testing required for construction.

(c) Support direct labor. Estimated labor costs (subject to S&A) at time of award. This shall include all in-house (labor) costs (not covered under S&A or EDC) that are subject to S&A anticipated at time of the award of the primary construction contract to include the following:

- Preparation of as-built drawings (if not part of the primary construction contract). Normally a standard rate of 0.2% of the award contract cost shall be used for this line item.

- Turnkey design review. Estimated cost for reviews of the preparation of plans and specifications for "Design-Construct" or "Turnkey" type contracts. This includes all review and approvals after contract award to include initial design, redesigns, design extensions, shop drawings, and any other contractor submittals.

- Other. Support labor (for other items not identified above) must be separately identified.

(d) Service orders (labor, other organizations) list separately. Some examples include the following; telephone connections, Director of Engineering and Housing (DEH) or Base Civil Engineer (BCE) work (DA Form 2544s, MIPRS, etc.), and life support housing and support facilities (OCONUS).

(2) Contingency (Total to Date). This is the amount (normally at award, five (5) percent of the award ECC) to fund unforeseen changes such as criteria and customer changes, differing site conditions, quantity variations, and design deficiencies. All line items funded from the Contingency shall be listed under this category separate from the above categories. After award this value may increase or decrease from the preaward established rate, depending upon circumstances. The Closeout Contingency shall list only funds expended out of the Contingency with all unexpended funds being returned to HQUSACE or the customer. After award, the Contingency shall be broken down into the categories displayed below if the category exists.

(a) Contingency committed, obligated or expended. These are funds set up to pay for pending/actual changes and are subtracted from the below Contingency categories.

(b) Contingency Uncommitted (normally 2% of the ECC at award). These are funds under the control of the district that have not yet been committed; funds that have been de-obligated as the result of credit modifications; or credits from actions like A-E liability or claim payments.

(c) Management Reserve (normally 3% of the ECC at award). The Management Reserve may or may not be allocated to the district at the time of award. These funds are normally controlled by the customer or HQUSACE and shall not be used without specific approval of the customer or HQUSACE as appropriate.

(d) Contingency Unfunded. Funds required to replace the Contingency account, should anticipated changes be in excess of the total Contingency to date established by HQUSACE or the customer.

(3) Award Engineering during Construction (EDC). This category (also considered as support direct labor, but not subject to S&A) shall include preparation and review of plans and specifications for changes to the awarded contract and for review of engineering and design effort by the construction contractor where construction specifications are expressed in terms of performance standards with certain design details left to the

contractor. Normally a standard rate of 0.5% of the ECC plus Contingency shall be used for this line item. EDC shall be excluded from S&A and Contingency rate calculation. All increases to the Award EDC shall be listed under the Contingency breakout.

(4) S&A This is the S&A flat rate times the ECC plus Contingency. This represents a standard Corps rate for the management of all activities associated with project construction funds (ECC and Contingency). After award the amount needs to be divided out between the rate on district controlled funds and uncontrolled funds i.e., Management Reserve. A-E construction Support Services (Title II) and S&A support contract costs shall be included as part of this flat rate. The closeout S&A shall be the S&A flat-rate times the expended ECC.

f. Amounts not part of the CWE.

(1) Other appropriations listed on the DD Form 1391 but not included in the PA. Some examples are equipment funded with OPA, OMAR kitchen equipment, or O&MA funds used for rehabilitation in conjunction with the MILCON line item. These funds shall be displayed separately using the same MILCON CWE format.

(2) Currency devaluation. The dollar value difference is corrected using a "currency devaluation account". The devaluation account provides (and collects) extra funds from many projects and an accounting of any one project is not reflected in the CWE.

(3) S&A actual costs above or below the S&A flat-rate. Actual S&A costs are charged against a Corps centralized bulk account. At project financial closeout S&A shall be reported as the cumulative Award ECC and Expended Total Contingency to Date.

(4) S&A from other appropriations. S&A costs charged to other fund sources shall be per agreement with the customer and may either be at flat rate or "at cost".

(5) Planning and Design (P&D) funds. For Design-Construct, P&D funds shall only be used to prepare the Request for Proposal (RFP) package for construction contract award. (Note; P&D funds shall be included on DD Form 1354, "Transfer and Acceptance of Military Real Property".)

(6) Other. Any funds paid to obtain a complete and useable facility such as real estate, bonds, insurance, relocations, military troop labor, etc., whether paid by state or other sources which are not part of the project line item appropriation.

30 Sep 93

g. Policy changes.

(1) EDC and administrative MIPRs shall be the only "Other Direct Without S&A" for MILCON. Award ECC and Total Contingency To Date shall be used to calculate the S&A Flat-rate in accordance with the DD Form 1391 breakdown.

(2) Life cycle use of DD Form 1391 breakdown format. All MILCON (Air Force, Army, DOD, etc.,) programs shall be calculated in accordance with the breakdown format on the DD Form 1391. For example when calculating the Award CWE, S&A shall be taken on top of all amounts (except EDC and admin MIPRs) provided at award.

(3) Postaward CWE. The postaward CWE shall be reported as the total of all funds received, reserved elsewhere and required above the established contingency.

(4) Postaward Contingency. Funds utilized from the Contingency account shall be displayed only under the Contingency category. For example, the current contract cost shall not be displayed together under one category. Instead the award contract cost shall be displayed under the Award ECC and all contract changes, work order changes, support direct labor changes (including EDC), and service order changes shall be displayed under the Contingency, Total To Date.

h. Example. In order to clarify how line items are combined or divided, the following life cycle example maintains the same life cycle CWE and displays only one contract. Funds retained at HQ or controlled by the customer are in bold print.

EXAMPLE: Detailed MILCON CWE Breakdown

	<u>CWE (CODES A, B & C)</u>	<u>CWE AT AWARD</u>	<u>CWE AFTER AWARD</u>
AWARD ECC -----\/------\/------\/-			
AWARD PRIMARY.	\$2,600,000	\$2,446,265	\$2,531,265
AWARD SUPPORT	\$ 400,000	\$ 431,694	\$ 446,694
AWARD OPTION 1	\$ 100,000		
AS-BUILTS (0.2% of Award)	\$ 5,956		\$ 5,956
AWARD SERV ORDERS TELEPHONE INSTL	\$ 2,000		\$ 2,000
	-----	-----	-----
AWARD ECC TOTAL.	\$3,000,000	\$2,985,915	\$2,985,915
CONTINGENCY, TOTAL TO DATE -----\/------\/------\/-			
CONTINGENCY OBLG PRIM CONTR MODS			\$ 51,000
EDC ADDITIONAL.			\$ 5,000
MANAGEMENT RESERVE TRANSFER TO DISTR CNTRL PEND MODS.			\$ 30,000

TOTAL KNOWN CHANGES			\$ 86,000
CONTINGENCY UNCMT \$ 150,000(5%-ECC)	\$ 59,718(2%-ECC)		\$ 3,718

DISTRICT CONTRLLD	\$3,045,633		\$3,075,633
MANAGEMENT RSRV	\$ 89,578 (3%-ECC)		\$ 59,578
	-----		-----
CONTINGENCY TTL.. \$ 150,000	\$ 149,296		\$ 149,296
(AWRD ECC+CONT). \$3,150,000	\$3,135,211		\$3,135,211
AWARD EDC -----\/------\/------\/-			
(0.5% AWRD ECC+CONT)	\$ 15,676		\$ 15,676
S&A -----\/------\/------\/-			
6% DISTR CNTRLD (AWRD ECC+CONT). \$ 189,000	\$ 182,738		\$ 184,538
MANAGEMENT RESERVE (MA)	\$ 5,375 (6%-MR)		\$ 3,575
	-----		-----
S&A TOTAL	\$ 189,000	\$ 188,113	\$ 188,113
	-----	-----	-----
DIST CNTRL CWE	\$3,244,047		\$3,275,847
HQCWE	\$3,339,000	\$3,339,000	\$3,339,000

CHAPTER 6
MANAGEMENT OF CIVIL WORKS' SUPPORT FOR OTHERS
CONSTRUCTION SUPERVISION AND ADMINISTRATION

6-1. **General.** This chapter provides guidance for the management of Supervision and Administration (S&A) for Civil Works (CW) and Support for Others (SFO) (see ER 1140-1-211).

6-2. **Sources of Income for S&A Services.** S&A for CW and SFO projects is performed on an actual cost basis, i.e., "at-cost" (see Table 3-3). Liquidated damages withheld for late completion by a contractor may be utilized to offset S&A costs incurred due to the prolonged performance period.

6-3. **Estimates of S&A Costs .** Budgeted S&A costs should be project-specific and based on estimates of actual S&A costs to be incurred during the life of the project. Estimate of S&A costs should be based on the best available data and the judgement of construction managers. These costs are established during the baseline budget process and are included in the Project Management Plan (PMP). They include all direct and indirect costs associated with the performance of S&A for construction.

6-4. **Management of CW and SFO S&A.**

a. S&A costs will be managed to budget. Costs for the accomplishment of S&A activities, including those associated with the provision and operation of a project office, will be charged directly to the project using the appropriate S&A cost account. Districts and MSCs shall review actual S&A costs on a monthly basis and compare them to budgeted amounts. Actions shall be taken to maintain costs within the budget or to revise the budget as appropriate.

b. HQUSACE will report by MSC, the CW S&A Costs at the quarterly Command Management Review Conference (CMR). Performance will be measured by comparing actual costs to budgeted costs on a quarterly basis. If an MSC's actual costs for a quarter are more than 115% of the budgeted amount, a written explanation shall be provided to CECW-OC not later than 15 days after the end of the quarter. S&A costs for selected SFO programs/projects will be reviewed on a periodic basis. The ability of an MSC to manage its workload and the size of its workforce within its budgeted S&A income is an important element of its overall performance rating.

c. Each MSC shall furnish its annual operating budget for CW S&A and placement to CECW-OC at the beginning of each FY in the format of Table 6-1. Quarterly amounts shall be cumulative. Only those S&A and placement amounts included in the operating budget

ER 415-1-16
30 Sep 93

for Construction General (CG) and Mississippi River and Tributaries (MR&T) construction should be reported. A mid-year adjustment to the budget is also required. Each year the initial submittal shall be provided to CECW-OC by 15 November, and not later than 15 May for the mid-year adjustment. Individual district performances will be used to evaluate overall division performance. District deviations will not generally require an explanation if the division total is within acceptable performance ranges.

TABLE 6-1
(NAME OF MSC)

CONSTRUCTION PLACEMENT AND S&A BUDGET FOR FY____

EFFECTIVE DATE: 1 October 19____

QUARTER*

DISTRICT		1	2	3	4
A	PLACEMENT				
	S&A				
B	PLACEMENT				
	S&A				
C	PLACEMENT				
	S&A				
D	PLACEMENT				
	S&A				
DIVISION TOTAL	PLACEMENT				
	S&A				

*Amounts are Cumulative

CHAPTER 7
FORECASTING OF CONSTRUCTION PLACEMENT

7-1. **GENERAL.**

a. Forecasting of construction placement is a critical and highly subjective aspect of construction fiscal management. Forecasting is a joint effort that involves Programs and Project Management, Engineering Division, Construction Division and field offices. Accurate forecasting of placement and monitoring of actual placement throughout the budget year are critical parts of the preparation and management of an operating budget. Construction placement is the accrued value of work performed, and is recorded in the Corps accounting system. It is the responsibility of the Chief of Construction and his construction managers to ensure that the correct cost codes and accounting deadlines are met to record accurate placement values in the accounting system.

b. Forecasting placement is both art and science; therefore, a rigid standardized procedure is not imposed Corps-wide. However, the use of the AMPRS Work Placement Estimate Report in EP 415-345-3 (Standard Report 114-P5-046) is encouraged. A general methodology is provided which can be adjusted for local conditions, and is applicable Corps-wide. This chapter discusses such a methodology and the factors which should be considered when forecasting construction placement. Performance indicators and reporting requirements are also addressed. Major Subordinate Commands (MSC) and districts should, as far as is consistent with good business judgement, standardize procedures within their organizations and publish written guidance. Accurate forecasting of placement is dependent upon each functional element providing the required information on estimated contract amounts and scheduled award dates to the Construction Division in a timely manner.

7-2. **Steps for Placement Forecasting.** Placement forecasting should generally follow these steps:

a. Based on information furnished by Programs and Project Management, and Engineering Division, Construction Division shall prepare a preliminary schedule which includes all contracts which are expected to earn income on placement during the budget period. The list should include contracts which are "in design" (i.e., new starts) and those which are under construction (i.e., carry over).

b. The preliminary schedule prepared by Construction Division should be transmitted to the various subordinate offices (field offices) which will manage the construction. Each field office should modify the preliminary schedule to reflect

applicable field conditions and prepare an estimate of placement for the work they will manage. The modified schedule and placement estimates should then be returned to the Construction Division.

c. Construction Division shall then prepare an organization-wide placement forecast by compiling placement forecasts for all field offices. Field offices should have an opportunity to comment on any changes that are made to their placement forecasts.

d. After contract award, projections should be adjusted to reflect the contractor's progress schedule.

7-3. **Estimation of Placement.** The placement forecast for each contract should be estimated individually, considering all known factors which may impact placement. A conservative approach should be taken when estimating placement, since the preponderance unknown factors affecting construction will reduce rather than increase placement. The following factors should be considered when estimating placement:

a. Survivability rate.

(1) The probability of a project actually being constructed varies with the stage the project is in at the time the forecast is prepared. Contracts which are in the early stages of planning generally have a lower probability of being constructed, while those which have been funded have a higher probability. Historical experience should be used to evaluate this factor. The programs management office at HQUSACE and the customer should be consulted to help determine survivability.

(2) The survivability rate is normally accounted for by utilizing a reduced estimate of contract amount for the basis of the placement forecast. Factors from 100 to 20 percent of the Current Working Estimate (CWE) or Programmed Amount (PA) are typically used. The lower percentages are generally utilized to forecast placement for other than the current execution year.

b. Contract amount. The estimate of the value of construction to be performed generally becomes more accurate as the contract nears commencement of construction. The amount for awarded contracts is established; however, claims and modifications can impact these amounts. Factors should be applied to the CWE or PA to obtain a contract amount to utilize for forecasting placement. Typical values are 50 to 75 percent of the CWE/PA for unawarded contracts, and the contract amount plus contingencies for awarded contracts. The lesser of the CWE or PA should be used.

c. Construction duration. The period over which construction earnings will be accrued is almost always longer than is estimated at any particular stage in the life cycle of a project. Historical time growth trends should be determined, and adjustments made accordingly, to the scheduled construction duration. Placement is then distributed over the duration utilizing the sine-squared, linear, or Hannum earnings curves. For ongoing contracts which have a history of earnings, the adjustments to the construction duration should be based on actual performance. Typical duration adjustments for unawarded contracts are 40 percent increase for contracts with durations less than one year, 30 percent increase for contracts with durations of one to two years and 20 percent increase for contracts with durations over two years.

d. Construction start date. The date on which actual construction started, or will start, can have a significant impact on anticipated placement. Two major factors, the season of the year and the budget cycle, should be considered when evaluating the date work starts. Extreme seasonal weather conditions will generally reduce placement. Often award dates are slipped so that the anticipated "start work" date is shifted into another season, which may result in reduced earnings. Holidays such as Christmas and New Year also reduce placement. The time within the budget cycle that a contract is scheduled to begin earning placement is critical, since those scheduled for the beginning of the cycle have a higher probability of producing earnings within the Fiscal Year (FY) than those scheduled to begin work in the fourth quarter. Contracts scheduled for award in the fourth quarter may be delayed until the next FY.

e. Contract clauses. Clauses requiring large payments for items such as mobilization, off-site fabrication, site preparation and large equipment costs may distort normal earnings' curves.

f. Bottom line adjustment. The uncertainties associated with forecasting placement for a particular contract are many, and the actual placement can and often does vary widely from that forecast. These wide variations tend to balance out when the individual contracts from the various programs are combined into the district-wide placement forecast. This forecast should be evaluated in light of previous experience in the district. If experience indicates that the methods used produce high or low results which can not be traced to a single factor, an adjustment should be made to the final result.

7-4. **Update of Placement Schedules.** Actual placement is to be compared monthly to forecast placement and necessary steps taken to maintain or revise the budget. Schedules are to be updated at least once per quarter and provided to the MSCs. Original and mid-year placement schedules by district by program are required by HQUSACE (CEMP-CM and CECW-OC). Experience demonstrates that slippages are often not recovered, so immediate cost-cutting actions are normally required whenever a slippage occurs.

7-5. **AMPRS & PROMIS Reporting.**

a. As a minimum, all projects expected to be awarded for construction in the upcoming FY shall be entered into AMPRS by 1 August (2 months prior to the start of the FY), with a CWE (data item 0850), Current Contract Award Date (0340) and Construction Calendar Days Original (0430) input in accordance with the above guidelines. A report is available via telephone access that displays construction work placement for the current and next fiscal years.

b. The fielding of PROMIS starts in FY 94. As districts convert from the use of AMPRS to PROMIS, use the appropriate reports and guidance provided by ER 5-7-1 (FR) and supplemental information to be issued during PROMIS implementation.

7-6. **Performance Indicators.** HQUSACE will, on a quarterly basis, report by MSC a comparison of forecast and actual placement for each program at the Command Management Review Conference.

7-7. **Statistical Analysis.** It may be useful to apply statistical methods to analyze forecast versus actual placement, contract duration, S&A costs/earnings, S&A man-years, etc., to help detect common and special causes of variation. This can be done in various ways, e.g., comparison of similar types of work versus time to accomplish, size of contract versus time to accomplish, comparison by customers, etc. Statistical methods are generally intended for situations involving quantifiable data, e.g., to produce and analyze run, average and range charts. However, even in cases with limited or poorly defined data, such as construction projects, these applications may prove useful.

CHAPTER 8
ACQUISITION/ESTABLISHMENT OF FIELD CONSTRUCTION OFFICES

8-1. Policy.

a. This chapter provides the HQUSACE policy on the acquisition of field construction offices by districts and Operating MSCs. Project offices for Civil Works projects are to be obtained primarily by use of project funds. Area offices for multiple Civil Works projects should be constructed through the Plant Replacement and Improvement Program (PRIP), or leased using area office overhead account funds. Project offices required for other non-military, non-DOD projects shall also be funded by project appropriations, as a general rule.

(1) Project or area offices required for the management of military-related construction activities should normally be provided or funded by the customer/sponsor of the construction work. Army and Air Force agencies and installations are generally the sponsors for military projects constructed by the Corps. In the interests of efficient and effective construction management, they should provide suitable existing facilities for the management of construction, and for other Corps on-site activities related to installation support. Alternate sources of project or area offices may be used only if the installation or other project sponsor cannot provide suitable facilities. See AR 415-15 for approval requirements where installations cannot provide space.

(2) The use of S&A funds or Area Office Overhead Account funds for construction or purchase of field offices is not permitted. The use of S&A funds for leases or rentals is to be avoided, unless no other alternative is feasible.

b. For military projects, the details concerning the acquisition of field offices should be included in a written Memorandum of Understanding (MOU) executed between each district and the supported installations and/or customers; i.e., Army, Air Force or other. Logistical details need to be formalized, such as USACE control of the facilities, and responsibility for maintenance and other related costs. The agreements with Air Force BCES should be part of local MOUs. For Army bases, such an agreement should usually be part of an overall MOU with an installation, and should be based on the DEH-district responsibilities listed in AR 420-10. At some posts, such as those under the Defense Business Operations Fund (DBOF), a district may be charged for its share of such items as security, drug prevention program, fire protection, etc. MOUs for such facilities should be negotiated to include only those services which benefit the particular office.

8-2. **Advance Planning.**

a. Advance planning is required to ensure that suitable office space is available when construction begins. For MILCON projects, office planning should start when a project is being programmed, during the review and certification process at the MSC or District. A long lead-time is usually required to acquire permanent office space at a military installation; the request for space must compete with all others being considered by the installation.

b. As soon as the MSC or district becomes aware of an upcoming project(s), the commander or his agent should request the necessary support facilities. For military projects, requesting correspondence should be sent to the Director of Engineering and Housing or to the Base Civil Engineer, specifying what is needed, and the length of occupancy. District and MSC commanders should insist on good employee working conditions. This is morale factor which could adversely affect the quality of construction, and thus possibly the reputation of the Corps.

c. Civil Works and "Support for Others" projects. Advance planning is necessary, and should begin during project programming, to ensure that suitable facilities are available. If no Corps, military or other government offices are available in the vicinity of the project, then appropriate action must be taken to ensure that funding is provided by the project sponsor. PRIP funds with appropriate authority may be used only when no other source is available.

8-3. **Alternative Sources of Office Space.**

a. In certain cases, the host installation may not be able to provide suitable facilities due to certain circumstances, such as strict budgetary constraints. If this occurs, the following options may be utilized to obtain office space. The size, scope and length of a project determine which options are preferred, use the most feasible one. However, options requiring S&A funds should be considered only as a last resort.

b. An upgrade or a new facility may be included in the project authorization document (DD Form 1391) for the project to be supported. This possibility needs to be considered as part of project planning and programming. When including a field office with a major project, ensure compatibility of facility types to improve chances of approval. For example, inclusion of a permanent office with administrative or mixed use facilities is more likely to be accepted than inclusion with a weapons range or maintenance facility.

c. If the installation cannot provide fixed (permanent) facilities from its inventory, the need for offices should be identified as a requirement in the DD Form 1391, to be paid from construction funds, as either -

(1) on-post office space in relocatable structures, e.g., trailers; or

(2) off-post lease or rental space. Since the lease or rental must be addressed in programming documents to be prepared approximately three years before start of construction, advance planning and coordination with the installation are necessary. These facilities may be obtained by the installation, the district or the construction contractor. If the contractor is to provide the facilities, the construction contract must include a bid item requiring provision of suitable office space.

d. The commander of a military installation may initiate and fund a minor O&M, DBOF or RPMD project (under \$300,000 funded costs) to upgrade substandard facilities.

e. Use of space in Civil Works offices is permitted for military projects when excess space exists. Usage costs are to be charged to the applicable military project(s), and/or to the flat rate S&A accounts as resident/area office charges.

f. New Civil Works office facilities may be acquired with provisions to include space for military projects (MILCON, O&M, RPMD, DBOF, other military reimbursable). These facilities must be funded by the Plant Replacement and Improvement Program (PRIP), and must support primarily multiple Civil Works projects or appropriations. When a new PRIP facility will cost over \$700,000, it must first be approved by Congress, a process requiring approximately two years' lead time. Military project offices may "rent" space in such a building, and must make payments to the PRIP account, based on area occupied, utilities and other operations costs. These cost will be charged proportionately, either directly to the supported military projects, or to the flat rate S&A account.

g. Relocatable buildings for military projects. Relocatable buildings are designed for the specific purpose of being readily moved, erected, disassembled, stored, and reused without structural damage and a minimum of refurbishment. They may be used to provide temporary space, normally less than three years, when these facilities constitute the most practical or economical means of satisfying requirements for nonpermanent facilities. AR 420-18 provides policy and procedures for relocatable buildings summarized as follows:

ER 415-1-16
30 Sep 93

(1) HQUSACE may approve relocatable building leases for up to one year, with total lease fees not to exceed \$50,000. Leases exceeding \$50,000 per year, durations over one year and all purchases must be approved by HQDA. HQDA approval requests must be submitted IAW AR 420-18 to:

Director
US. Army Center for Public Works
ATTN: CECPW-FB-I, Building 358
Fort Belvoir, Va. 22060-5516

(2) Relocatable buildings are normally acquired with Other Procurement Army (OPA) funds, but may also be paid for with other types of funds, provided the fund does not have a prohibition against this purpose. MSCs requesting OPA funds should contact HQUSACE (CERM-B) for current guidance. Relocatable building leases and costs of assembly, maintenance and operation, to include utilities, disassembly, and refurbishment will be charged to the operating funds of the using activity. The real property portions of a relocatable building request (such as site preparations, foundations, exterior utilities, other supporting construction requirements), which are funded costs of a project, are to be executed either as part of the primary project (if approved in DD Form 1391), or as a separate minor construction project, e.g., with the OMA "L" account.

h. Non-Corps, non-installation government facilities. Use of such facilities will be covered with a Memorandum of Understanding (MOU) as described in the Defense Regional Interservice Support (DRIS) Regulation, DOD 4000.19-R, March 1984, supplemented by AR 5-16. This applies to situations such as leasing from General Services Administration or from non-Army DOD agencies. S&A funds shall not be used to pay for leases, unless there is no other alternative, as certified by the District Commander.

i. Leases. This is the least desirable alternative for acquisition of office space, and should generally not be considered. If the other options prove unfeasible, necessary facilities may be leased from commercial sources. An economic analysis must first be performed; if it reveals that it is more effective to lease non-government space, the cost of leasing may be charged to the supported project(s). The S&A account may be used only when no other funds are available. Prior approval by HQUSACE (CERE-A) is required.

8-4. **Hazardous, Toxic and Radiological Waste (HTRW) Removal Projects.** The following guidance is to be followed when obtaining construction office space for environmental, and HTRW removal/remediation projects.

a. EPA Superfund Project funds may only be used to lease or rent facilities, but not to construct or otherwise acquire them for permanent ownership. A contractor may be required to furnish suitable administrative space to Corps personnel as part of the contract.

b. Formerly Used Defense Sites (FUDS). The situation is similar to that for EPA projects. DOD generally does not permit any fixed/permanent construction at former military installations.

c. Installation Restoration Program (IRP). At active military bases, either temporary or permanent facilities may be acquired, if justified by the scope and expected duration of the project. For construction purposes, treat IRP funds the same as OMA and MILCON. An existing building may be rehabilitated or altered, provided the minor construction cost ("L" account) is below \$300,000. To use IRP project funds, prior coordination must be made between the District and the supported BCE or DEH, who then must include the office requirement when submitting the project cost estimate.

8-5. **Operations and Maintenance Costs.** The operations and maintenance costs of an Area/Resident/Project office are legitimate charges to S&A, provided they do not result in a capital improvement, i.e., over \$5,000 for Civil Works or over \$15,000 for military. Field commanders will ensure that such charges are appropriate for operations (utilities, pro-rated charges from the host for common services, etc.) and maintenance (minor repairs, painting, etc.). Care will be exercised to ensure that capital improvements are not charged as S&A costs. Reimbursable funds provided by the installation or project customer/sponsor are generally the proper source for capital expenses.

8-6. **Restrictions.** Suitable construction office facilities are an essential tool in our effort to deliver a quality product on time and within budget. The Corps has a responsibility to its customers and employees to provide office facilities which will enhance our ability to accomplish our mission. However, some statutory and regulatory restrictions must be observed, as outlined below.

a. The use of S&A funds for construction of office facilities or procurement of capital assets is prohibited.

b. The cost of construction of a military projects office which supports more than a single project cannot be distributed among the projects; all funds for its construction must come from a single UMMCA project or military line item appropriation.

c. The use of S&A funds for rental/lease of office space is discouraged. Provisions of suitable office space should first be the responsibility of the installation or project sponsor. S&A funds should be used only when no other sources are available, and must first be approved in writing by the District Commander.

8-7. **Factors to Consider for Office Suitability.** In acquiring office space, it is necessary to consider those factors which will enhance the morale and productivity of Corps personnel, and provide a work area which will make a positive impression on our customers and other visitors. Listed below are the main factors to consider. Consult appropriate regulations and design guides for detailed, current guidance.

a. Economics - this is one of the Corps' three prime considerations for project planning, in addition to engineering and environment. Costs are an important consideration, especially for those Corps customers who operate under strict budgetary constraints. Avoid extravagance and luxuries. This does not imply that the Corps is to acquire austere or substandard facilities. Proper advance planning allows for construction or rehabilitation of structures which will provide a suitable, pleasant working environment at little additional cost.

b. Environment - ensure that no harmful effects are caused by establishment of an office. The Corps is frequently in the public spotlight on this issue, so forethought in siting and design are necessary for good public relations.

c. Safety & health - provide an area clear of hazardous and toxic materials, and free of animal and insect infestations. Ensure that buildings are structurally sound, and all utilities are adequate and in safe operating condition.

d. Space and furnishings - AR 405-70 Utilization of Real Estate, and DA Pam 420-10 Space Management Guide, provide the basic guidelines for office space requirements and layouts. When applicable, Civil Works offices must conform to the requirements of 41 CFR, Part 101-17 (GSA Temporary Reg D 73).

e. Lighting - check appropriate design criteria for specific requirements. If not available, use the following general criteria: 50 Foot-Candles at work station (i.e., desk); other work areas: 30 Foot-Candles; non-work areas: 10 Foot-candles.

f. Heating, ventilation, air conditioning - ensure adequate fresh air for effective working conditions. Check for "unhealthy" buildings where airborne particles, bacteria, etc., may not be adequately filtered, and insufficient air supply causes drowsiness and lower productivity. If not prescribed otherwise, heating must raise the temperature to 68° F (20° C) in administrative areas, and cooling must lower room temperatures to 79° F (26° C).

g. Acoustics - sound levels should not exceed 47-56 dBA. Use of sound-absorbent materials and furnishings is encouraged.

h. Exterior.

(1) Utilities - plan/design appropriate capacity to meet future demand, to minimize maintenance, and to provide maximum accessibility for repairs. Keep maintenance manuals on-hand for utilities and equipment - this will assist the DEH/BCE with their repair and maintenance responsibilities.

(2) Esthetics and signage - coordinate with the DEH or BCE to ensure conformance with the installation's Master Plan and Design Guide, and/or Community of Excellence program.

(3) Transportation - try to locate the office near public transportation routes, as an alternative to privately-owned vehicles. Ensure adequate parking for official, employee and visitors' vehicles.

CHAPTER 9
ACQUISITION OF ASSETS OTHER THAN FIELD OFFICES

9-1. **General.** This chapter provides information on the acquisition of capital assets required for field office operations and other construction management-related activities: items such as tools, furniture and automated data processing equipment (ADPE). This information applies especially to military projects, as they generally operate under more restrictive rules.

9-2. **Capital Assets.** Capital assets for U.S. Government agencies are defined by the General Accounting Office as items having an acquisition cost of \$5,000 or more, and a useful life of two years or more (GAO Policy and Procedures, Title II, Appendix I, Standard No. P40). For USACE accounting purposes, if capital assets are not paid for by project funds, they are treated as a departmental overhead cost.

a. An item is not considered a capital asset if it costs less than \$5,000 and can be fully utilized in and of itself, e.g., a desk or computer which is not part of a larger system. Bulk purchases exceeding \$5,000 are permissible for these items for the sake of convenience, prohibited items are modular furniture or conditions. Examples of prohibited items are modular furniture or computers, when these will be part of a system exceeding \$5,000.

b. For military projects, the flat rate S&A accounts will not be used for acquisition of capital assets, as this would result in a violation of the Purpose Statute and may result in an Anti-Deficiency violation. The requirements of Chapter 7, ER 37-2-10 concerning capital assets apply to both civil works and military projects. A waiver to the ER for purchase of capital assets costing between \$5,000 and \$15,000 may be approved by CERM-FP, if the asset is used only for military projects.

9-3. **Alternatives to S&A Funding.** To acquire or gain use of capital assets, various alternatives to S&A funding should be considered. Only the first one permits use of S&A funds.

a. Leasing - S&A funds may be used, if other funding is not available. This choice may be preferable to outright purchase when a short-term operation is planned, or when considerable maintenance or repairs can be expected. A simple life-cycle cost analysis should be made to determine the best alternative. The Corps ECONPACK computer program is useful for this.

ER 415-1-16
30 Sep 93

b. Other Procurement, Army (OPA) funds. These can be obtained through the USACE budget/funding process.

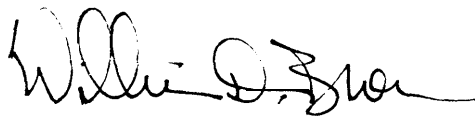
c. Transfers or "rentals" of currently unneeded items between Civil Works and Military Programs are permitted.

d. Major sources of free or inexpensive equipment and furniture, new and used, are local military and civilian Property Disposal Offices (PDO's), which often have useful items in serviceable or near-serviceable condition. It is recommended that MSC'S obtain PDO notices, sent out periodically

e. Often, minor repairs or restoration can make used items useful, reliable and attractive. Items obtained from PDO's or other sources at no cost or below fair market value, whose actual value exceeds \$5,000, are considered capital assests and must be recorded by the acquiring office as "donations" to the Revolving Fund. Items under \$5,000 in value are considered "expendable" and must be recorded on the acquiring office property records. Repairs and maintenance of these items are to be charged generally to the Area/Resident Office overhead accounts, or to the District/Operating Division departmental overhead, as applicable. When the item(s) are used exclusively in support of a specific project, charge repair/maintenance as a project S&A cost.

9-4. Additional Funding Sources. Base Level Commercial Equipment and other similar programs are sources available for funding of ADPE and modular office furniture, when these are classified as capital assets. The district and MSC Resource Management Office should have current information and guidance, as provided by HQUSACE (CERM-B) .

FOR THE COMMANDER:



WILLIAM D. BROWN
Colonel, Corps of Engineers
Chief of Staff

1 Appendix
APP A - References
Glossary

GLOSSARY

Listed herein are abbreviations and definitions of terms which are frequently used in this regulation. For a more extensive listing, refer to AR 415-15, ER 5-7-1, ER 37-2-10 and ER 37-345-10.

ABBREVIATIONS

ACASS--Architect-Engineer Contract Appraisal Support System
 ACSIM--Assistant Chief of Staff for Installation Management
 (Army Staff at Pentagon)

AFARS--Army Federal Acquisition Regulation Supplement

AMC--Army Materiel Command

AMPRS--Automated Management and Progress Reporting System

AMS--Army Management Structure

BCE--Base Civil Engineer

BCO--Biddability, Constructibility & Operability (review)

CCASS--Construction Contract Appraisal Support System

CEFMS--Corps of Engineers Financial Management system

CEPCW--Army Center for Public Works, Ft Belvoir (formerly
 Engineering and Housing Support)

CERAMMS--Corps of Engineers Resource and Military Manpower System

CM--Construction Management

CW--Civil Works

DBOF--Defense Business Operating Fund

DEH--Directorate of Engineering and Housing

DERP--Defense Environmental Restoration Program

DFARS--DOD Supplement to Federal Acquisition Regulation

DOD--Department of Defense

DOE--Department of Energy

DPW--Department of Public Works

EFARS--Engineer Federal Acquisition Regulation Supplement

EPA--Environmental Protection Agency

EP--Engineer Pamphlet

ER--Engineer Regulation

FAR--Federal Acquisition Regulation

FOA--Field Operating Activity

FORCON--Forecast of Construction (for Civil Works)

FUDS--Formerly Used Defense Sites (environmental restoration -
 part of DERP)

GSA--General Services Administration

HTRW--Hazardous, Toxic and Radiological Waste removal or
 remediation projects; as used in this ER, it includes work for
 DOD, EPA and other potential customers.

ICR--Internal Control Review (Checklist)

ER 415-1-16
30 Sep 93

ICR-- Internal Control Review (Checklist)
IRP-- Installation Restoration Program (part of DERP)

LCCA--Life-Cycle Cost Analysis
LRS--Life-Cycle Cost Reporting System
MCA--Military Construction, Army
MCAF--Military Construction, Air Force
MILCON--Military Construction; designates any congressionally
appropriated new construction for DOD
MSC--Major Subordinate Command (formerly Division in USACE)

O&M--Operations and Maintenance
OASA(IL&E) --Office of Assistant Secretary of the Army for
Installations, Logistics and Environment
OCE-P--Office of the Chief of Engineers, pentagon (successor to
former Office of Assistant Chief of Engineers)
OMA--Operations and Maintenance, Army
OMAF--Operations and Maintenance, Air Force
OMAR--Operations and Maintenance, Army Reserve
OPA--Other Procurement, Army (generally administered by AMC)

PROMIS--Project Management Information System
PRIP--Plant Replacement and Improvement Program (Civil Works)
RDT&E--Research, Development, Test and Evaluation (funds)
RPMA--Real Property Maintenance, Army
RPMD--Real Property Maintenance, Defense
RMS--Resident Management System

S&A--Supervision and Administration
S&I--Supervision and Inspection
SFO--Support For Others (ER 1110-1-211)
SIOH--Supervision, Inspection and Overhead (for Navy projects)

TDA--Table of Distributions and Allowances
TQM--Total Quality Management
UMMCA--Unspecified Minor Military Construction, Army
USACE--U.S. Army Corps of Engineers

DEFINITIONS:

The first set of definitions is taken from AR 415-15, "Military Construction Program Development and Execution" and ERs 37-2-10 and 37-345-10. They apply to most types of work performed by USACE.

Construction: (military)

- (a) The erection, installation, or assembly of a new facility.
- (b) The addition, expansion, extension, alteration, conversion, or replacement of an existing facility.
- (c) Relocation of a facility from one installation to another.
- (d) Installed equipment made a part of the facility, related site preparation, excavation, filling, landscaping, or other land improvements.

Construction Project: A single undertaking to produce a complete and usable facility and/or a complete usable improvement to an existing facility. It includes all construction work, land acquisition, supervision, inspection and overhead costs, and procurement and/or installation of specific types of built-in (installed) equipment necessary to make a facility complete and usable.

Construction Activity: The activity (agency or office) responsible for award of a construction contract, or execution of the work by other means.

Operations and Maintenance (Real Property Maintenance Activity):

This term applies to most DOD departments and agencies. OMA--Army; OMAR--Army Reserves; OMAF--Air Force (other military services use similar abbreviations)

For the Army, the AMS accounts are used to account for expenditures for repair, maintenance, and minor construction (under \$300,000):

- J. Operations and Utilities
- K. Maintenance and Repair of Real Property
- L. Minor Construction
- M. Engineer Support

ER 415-1-16
30 Sep 93

OTHER DEFINITIONS

Support for Others: See ER 1140-1-211 for a detailed definition. This term is used to indicate all projects or other work which the Corps may perform for non-DOD customers, as well as dredging for DOD departments and agencies. Various types of funds may be used; however, all projects funded entirely with Civil Works appropriations are excluded.

Examples which are considered as "Support for Others" are work for EPA, DOE, state and local governments, other Federal, non-Federal and foreign agencies. See Chapter 3, Table 3-3, for a detailed list.

APPENDIX A
REFERENCES

- a. 10 USC 2577, Disposal of Recyclable Materials
- b. 10 USC 2802(b)(5), Military Construction Projects
- c. 31 USC 1301, The Purpose Statute
- d. 31 USC 1341/1517, Anti-Deficiency Act
- e. 41 CFR, Part 101-17, GSA Temporary Regulation D.73
- f. DOD 4000-19-R, Defense Regional Interservices Support (DRIS) Regulation
- g. DOD 7110.1-M, DOD Budget Guidance Manual
- h. DOD I 7150.6, Financing the DOD Family Housing Program - Administration of Management of Funds
- i. DOD 7220.9-M, DOD Accounting Manual; Chapter 77: Accounting for Military Construction Projects
- j. DOD I 7310.1, Disposition of Proceeds from DOD sales of Surplus Personal Property
- k. AR 5-16, Army Supplement to DOD 4000.19-R
- l. AR 37-1, Army Accounting and Fund Control
- m. AR 210-50, Housing Management
- n. AR 405-70, Utilization of Real Estate
- o. AR 415-15, Military Construction Program Development and Execution
- p. AR 415-17, Cost Estimating for Military Programs
- q. AR 415-35, Minor Construction
- r. AR 420-10, Management of Installation Directorates of Engineering and Housing
- s. AR 420-18, Facilities Engineering, Materials, Equipment, and Relocatable Building Management
- t. DA Pam 420-10, Space Management Guide

ER 415-1-16
30 Sep 93

- u. ER 5-7-1 (FR), Project Management
- v. ER 37-1-24, Operating Budgets
- w. ER 37-2-10, Accounting and Reporting--Civil Works Activities
- x. ER 37-345-10, Accounting and reporting--Civil Military Activities
- y. ER 415-345-38, Transfer and Warranties
- z. ER 715-1-10, Architect-Engineer Responsibility Management Program (AERMP)
- aa. ER 1140-1-211, Support for Others: Reimbursable Work
- bb. EM 1110-2-1301, Cost Estimates--Planning and Design Stages
- cc. EP 37-1-3, Operating Budget Process Model
- dd. EP 37-1-4, Fiscal Administration - Cost of Doing Business
- ee. EP 37-2-1, COEMIS F&A Standard, Automated Sub-system, Revolving Fund Activities, User's Manual
- ff. EP 37-26-1, COEMIS F&A Standard, Automated Sub-system, Civil Functions, User's Manual
- gg. EP 37-345-1, COEMIS F&A Standard, Automated Sub-system, Military Functions, User's Manual
- hh. EP 415-345-2, Automated Management and Progress Reporting System (AMPRS) Data Dictionary.
- ii. EP 415-345-3, Corps of Engineers Automated Military Construction Progress Reporting System (AMPRS)
- jj. EP 1110-1 Series, Construction Equipment Ownership and Operating Expenses Schedule
- kk. CECPW, Technical Note 405-80-02, Executive Summary of Real Property, Army Center for Public Works