

Department of the Army
Headquarters
Tobyhanna Army Depot
Tobyhanna, PA 18466-5039

*TYAD Regulation No. 420-5

28 April 2011

Facilities Engineering

FACILITIES ENGINEERING PROJECTS

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FOR THE COMMANDER:

Official:

CHARLES C. GIBSON
Colonel, Logistics Corps
Commanding

//signed//

MARY GRACE E. WASHO
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* This regulation supersedes Tobyhanna Army Depot Regulation 420-5, 17 Dec 09.

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SUMMARY OF CHANGE

TYAD Regulation 420-5
Facilities Engineering Projects

This revision dated 1 April 2011:

- Add Summary of Change page.
- Updated organizational names.
- Maintenance Service Order (MSO) – Non-scheduled maintenance and/or repair services requested by calling the work order clerk at X57805 or submitting a request online: Intranet, Public Works, DPW Service/Maintenance Request WebForms. If you are trying to reach DPW, Equipment and Supply Division work order clerk after-hours and it is an emergency call: Fire and Emergency Services Division, X57300. These orders cannot exceed 100 man-hours in labor and INCREASED the amount to \$10,000 in material cost to accomplish the work.
- Capital Investment Program (CIP) – all minor construction projects INCREASED costing to \$250,000.

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1. Purpose. To prescribe policies, procedures, timeframe and responsibilities for requesting, processing, and managing maintenance and repair and construction type projects from various fund sources. This regulation does not include detailed instructions for Military Construction Army (MCA) and Minor MCA (MMCA) Construction programming.

2. Definitions.

a. Real Property Facility (RPF) - A separate and individual building, structure, utility system, or other real estate improvement identifiable in the three-digit Category Codes (Cat Code) listed in AR 415-28. Examples are:

(1) Buildings – One enlisted barracks (Cat Code 721) represents a single RPF.

(2) Utilities - A single separated water supply, treatment, and storage facility (Cat Code 841) represents a single RPF.

b. Maintenance, Repair and Backlog of Maintenance and Repair (BMAR).

(1) Maintenance - The recurring day-to-day, periodic or scheduled work required to preserve or maintain an RPF in such condition that it may be effectively utilized for its designated functional purpose. Maintenance includes work undertaken to prevent damage to a facility which otherwise would be more costly to restore. Maintenance also includes work to sustain existing components, such as renewal of disposal filters, painting, caulking, refastening loose siding, and sealing asphalt pavements.

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(2) Repair - The restoration of an RPF to such condition that it may be effectively utilized for its designated purpose. Repair may be accomplished by overhaul, reprocessing, or replacement of constituent or materials which have deteriorated by actions of the elements or wear and tear in use, and which have not been corrected through maintenance.

(3) Backlog of maintenance and repair (BMAR) is the end of the fiscal year measurement of maintenance and repair work that remains as a firm requirement of the annual work plan but that was not accomplished in that fiscal year because of lack of resources.

(4) Maintenance Service Order (MSO) - Non-scheduled maintenance and/or repair services requests by calling the work order clerk at X57805 or submitting a request online: Intranet, Public Works, DPW Service/Maintenance Request WebForms. If you are trying to reach DPW, Equipment and Supply Division (ELS) work order clerk after-hours, and it is an emergency call: Fire and Emergency Services Division, X57300. These orders cannot exceed 100 man-hours in labor and \$10,000 in material cost to accomplish the work. Repair can include, but is not limited to the following: The interior or exterior of all facilities and their components; all equipment in place; exterior utility systems to include water, electrical, sanitation and/or storm sewer, air conditioning, compressed air, and controlled air; surfaced areas and grounds to include roads, curbs, parking areas, improved, semi-improved, and unimproved grounds.

(5) Individual Job Order (IJO) - This category of work is established for repair work and new work exceeding the criteria of MSO work. Customers of the Engineering and Housing Division can generate the work.

(6) Emergency Service Calls, MSO and IJO Work - Consists of correcting failure or deficiencies which constitute an immediate danger or health hazard to occupant, threaten damage to property, or adversely affect the mission. These calls require response within 30-minutes after notification.

(7) Urgent Service Calls (MSO and IJO Work) - Failures or deficiencies which do not immediately endanger the occupants, threaten damage to property, or adversely affect the mission but which would soon inconvenience and affect the health and well-being of the occupants or affect the mission. These calls require response within seven days of notification.

c. Construction - The erection, installation, or assembly of a new facility; the addition, expansion, extension, alteration, conversion, or replacement of an existing facility; or the relocation of a facility from one installation to another: includes the equipment installed, and made a part of such facilities and related site preparation, excavation, filling and landscaping, or other land improvements.

d. Facilities Engineering Project (FEP) Program

(1) The FEP Program is the medium utilized to obtain the depot's recommend project program, approve the depot project requirements, manage special interest objectives and establish funded program levels. It is a program for projects to be accomplished by contract; it does not apply to work performed by in-house Engineering Division (ELE) resources.

(2) The proposed FEP Program shall include all maintenance and repair and construction projects to be done by contract which cost more than \$100,000 and are necessary to keep existing RPF in good state or repair and to meet mission productivity, security, energy, environmental, safety, health and quality of life requirements. The following are maximum limits on the FEP Program:

(a) Construction projects which are accomplished by contract up to \$750,000. Construction projects over \$750,000 must be accomplished under the MMCA or MCA Programs. Refer to AR 415-35 and AR 415-15 respectively for explanations of these programs.

(b) Maintenance and repair projects, which are to be accomplished by contract, cannot have a cost exceeding 50 percent of the replacement cost of the facility.

e. Equipment-In-Place (EIP) - Equipment of a movable nature which has been fixed in place or attached to real property, but which may be severed or removed from buildings without destroying the usefulness of the structures.

f. Funding Definitions –

(1) Appropriated Funds - Funds authorized by an Act of Congress to incur obligations for specified purposes and to make disbursements from the Treasury of the United States (AR 37-1, Army Accounting and Fund Control).

(2) Non-appropriated Funds (NAF) - Cash and other assets received by non-appropriated fund instrumentalities from source other than monies appropriated by the Congress of the United States. NAFs are government funds used for the collective benefit of military personnel, their dependents, and authorized civilians who generated them. These funds are separate and apart from funds which are recorded in the books of the Treasury of the United States (AR 215-1).

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(3) Capital Investment Program (CIP) – all minor construction projects costing between \$250,000 and \$750,000, which will increase the life of building, will be funded with CIP obligation authority

(4) Customer Reimbursed Funds - These are funds provided directly to the depot by the customer (such as a tenant). We locally establish a PRON, accumulate the costs and then bill the customer for the work performed.

g. Combination Projects - Projects including different classifications of work (Maintenance and Repair and Construction) or different funds (appropriated, non-appropriated, surcharge, research, development, test and evaluation, etc.) requested and accomplished as one project with individual project limitations.

3. Policy - It is the policy of the installation to maximize constrained resources in accomplishment of facility maintenance, repair and construction.

4. Procedures – See Appendix B.

a. Activity requesting project work will:

(1) Initiate a DA Form 4283, Facilities Engineering Work Request, as soon as a need is recognized. Small jobs, which will not exceed 100 man-hours of labor or a total cost of \$10,000, including material, can be called in to the D/Public Works, ELS work order clerk at X57805 or by submitting a request online: Intranet, Public Works, DPW Service/Maintenance Request WebForms. If you are trying to reach DPW, ELS work order clerk after-hours, and it is an emergency call: Fire and Emergency Services Division, X57300.

(2) Completely describe project scope of work so that it is understandable. Sketches and drawings will be attached as applicable.

(3) Include complete and detailed justification as a basis for priority assignment. Each directorate, tenant or staff office will establish priorities for all requests originated with the activity. The quarterly ELE Priority Report will be used by the activity for organizing priorities.

(4) Prepare DA Form 4283. The “Document Number”, will be completed with an eight-digit number. The first two positions designate the Directorate and Division level. The next five digits are the root/serial number assigned by the requestor (precede numbers of less than five digits with zeros). The last digit is the fiscal year.

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(5) Forward original signed copy through appropriate Organizational Coordinator for his action and signature (in block #10).

(6) Provide funding and costing information for reimbursable projects via a DD Form 448-2 after ELE provides project AMS Code and preliminary cost estimate

(7) Provide a validated Economic Analysis (EA) or a validated economic analysis program exemption statement (EA Exemption) by TYAD Supplement to AR 11-28 for construction projects costing more than \$250,000. The requesting activity shall perform this work after being furnished a construction cost estimate by ELE.

b. Organizational Coordinators will:

(1) Receive, review, evaluate, coordinate, approve and prioritize all organizational job order requests except those that are FEPs. Particular attention will be given to describing the scope of work accurately to insure that it can be clearly understood.

Organizational coordinators or a designated point of contact (POC) will call MSO Desk, for all MSOs. The requesting activity can receive feedback on priority MSO numbers assigned at time of call-in.

(2) Sign approved job order requests (Director of Chief Tenant Activity may sign instead) in block 10 of the DA Form 4283 before routing through organizational channels to ELE.

(3) Provide funding and costing information on reimbursable projects.

(4) Furnish a prioritized list of uncompleted job order requests, which are not FEPs to ELE by 1 Oct, 1 Jan, 1 Apr and 1 Jul. This priority listing of requests will be used as a means to schedule workload for ELE. Emergency changes to the established organizational priority list shall be made by either phone or memo to the Chief, ELE.

(5) If self-help is desired, the coordinator must request by memorandum or by DA Form 4283 in work description block.

c. The Commander or his designated representative will approve or disapprove all job order requests.

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d. ELE will:

- (1) Process job order requests in accordance with DA Pamphlet 420-6 and AR 420-17.
- (2) Receive, record, review and evaluate all job order requests.
- (3) Notify requestor of job order request disapproval and reasons for this action. A quarterly IJO Status Report will be prepared and forwarded to the requesting activity.
- (4) Classify work and prepare preliminary cost estimate for approved job order requests. Provide monthly progress reports via the WIC FEMS Program Report. Maintain and update IJO and MSO databases as action occurs.
 - (a) Projects, which are to be constructed with ELE personnel, will be designed and cost estimated, have material ordered, scheduled, and constructed. This type project may also be constructed by using organizations after receipt of authorization from the FE.
 - (b) Projects below the FEP Program threshold, which are to be constructed by contract, will be designed and cost estimated, contract spec written, and then forwarded to Army Contracting Command – Aberdeen Proving Ground C4ISR, Sector – T for procurement. This data will also be inputted into IFS database to be accessed for status by requestor.

e. FEP Program

- (1) Job order request must be submitted to ELE in order to be included in the FEP Program for the budget and program years. This will allow time to develop a cost estimate for the request, prioritize it and obtain approval. The requests are also required by 31 Oct to be included in the ELE Repair and Utilities Annual and Long Range Project Programs.
- (2) Job order request, which are not submitted in time for the FEP Program and are strongly desired may be included by special arrangements between the FE, Chief, Program and Budget Division, and HQ CECOM. The Commander or his/her designed representative will only make these arrangements after approval.
- (3) Requesting activities shall furnish the following information for their projects for inclusion in the DD Form 1391s. This information will be required prior to 30 November.

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(a) Block 11.L. “PROJECT” – (what is needed?) Furnish a one-sentence statement of what the project will provide.

(b) Block 11.M. “REQUIREMENT” – (why is it needed now?) Give detailed statements as to precisely why the project is needed. Use positive statements to support the requirement. Avoid the use of such words as “inadequate”, “uneconomical”, and “necessary” unless they are fully explained. Similarly, when stating contributing factors, leave no pertinent questions left unanswered. For example:

1. If the project will reduce excessive maintenance, show a cost comparison between the existing and proposed facility.

2. If the project is self-liquidating, show amortization; or

3. If the existing facility is in a state of advanced deterioration, describe the effects.

4. The requirement statement must demonstrate that maximum use of existing facilities is being made. The preparer must specify the alternatives considered along with the reasons for their rejection.

(c) Block 11.N. “CURRENT SITUATION” - (How is the need currently being met?) Describe how and under what conditions the requirement is presently being met. Comments should support the requirement by briefly describing the assets in use with reasons why they are not suitable for continued use. Include all compelling reasons for approving the project. Examples are unfavorable location, environmental features, adverse health and safety conditions, high maintenance costs, violations of Federal, State and local laws, need to waive existing regulations, and other pertinent conditions.

(d) Block 11.O. “IMPACT IF NOT PROVIDED” - (what will be the result if the project is not approved in this program?) Describe the manner and extent to which mission accomplishment would be affected if the project were not approved.

(4) CECOM approves the FEP Program. ELE will generally attempt to follow TYAD project priorities in accomplishing the program, but it is recognized that the multiple constraints imposed by CECOM limit flexibility. HQ CECOM in approving the FEP Program will:

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(a) Approve specific projects which may be included in distributive, residual, CIP and supplemental funding.

(b) Provide funding limits on:

1. Construction costs, including in-house construction.
2. Residual costs.
3. CIP Capital Investment Program costs.
4. Supplemental costs.

(c) Provide special grants as available. This may include Occupational Safety and Health Administration or environmental funding for specific projects.

(5) Some projects, even though shown on the FEP Program, have approval and/or funding responsibilities, in whole or in part, by other than ELE. Examples are:

(a) Non-appropriated Funded (NAF) projects, which must have funding provided by others and, in some cases, have project approval done by others.

(b) Equipment-In-Place (EIP) - Projects, which contain EIP in part or in total, must have the EIP approval and funding obtained by the using activity in conjunction with Directorate for Resources Management (D/RM) and ELS. Some projects, even though classified EIP will be designed and constructed by the ELE if they are in that area of expertise. Examples of this are air conditioning systems, mechanical ventilation systems, and electrical distribution, which only service equipment and are, therefore classified as EIP. The Engineering Division can assist in determining EIP classifications.

(c) Tenant projects shall be done as per the applicable interservice support agreement. Generally, these read that the tenant would fund construction work that he requests.

(6) Projects within the FEP Program, which are funded by HQ CECOM, will be accomplished by contract. The ELE is the action organizational element for this program.

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(7) Projects within the FEP Program which exceed the Commander's maximum technical approval limit as shown in Appendix A must be submitted to HQ AMC I&SA or HQDA for approval. Construction projects shall be submitted in accordance with AR 415-35. ELE shall furnish requesting activities cost estimates and any other requested construction data. Requesting activities shall furnish the following information to ELE for these higher headquarters submissions:

(a) DD Form 1391C data:

1. Paragraph 1, General – This paragraph should contain information that does not logically belong in subsequent paragraphs. Refer to AR 415-15 for suggested topics.

2. Paragraph 3, Analysis of Deficiency – Evaluate the quality of the facilities now being used. Determine the physical deficiencies and how they limit the performance desired. Describe how the deficiencies hinder accomplishment of the mission.

3. Paragraph 4, Consideration of Alternatives – Present evidence that all viable alternatives have been examined, evaluated and rejected in favor of the proposed project.

4. Paragraph 6, Program for Related Furnishings and Equipment - This paragraph focuses on furnishings and equipment required for installation or use in the proposed facility.

5. Paragraph 11, Economic Justification - See paragraph 5.a. (7) for the discussion of EA or EA exemption requirements. The results of these will be shown in this paragraph.

6. Paragraph 18, Commercial Activities (CA) - This concerns expansions requiring a capital investment in facilities of equipment in excess of minimum dollar thresholds as outlined in AR 5-20. It also concerns new requirements as defined in AR 5-20. FEP Program projects, which are submitted to higher headquarters for technical or administrative approval, would only rarely be over the dollar thresholds concerning expansion. This requires exceeding 20 percent of the total capital investment or 20 percent of the annual cost of labor and material for the modernization, replacement, upgrading or enlargement of an in-house commercial activity. If these limits are not exceeded, that must be stated in this paragraph. A new requirement is basically a new mission. This is a rare occurrence and would probably involve MMCA or MCA Funding instead of FEP Funding.

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(b) A validated EA or EA exemption as described in paragraph 5.c.(5).

5. Responsibilities –

a. Commander will approve or disapprove all job order requests that are above the delegated FE approval authority and return requests to ELE.

b. Directors, Chiefs/Tenant Activities and Staff Offices will:

(1) Appoint an Organizational Coordinator and alternate for job order requests and furnish said names to ELE. Any changes in these assignments will be forwarded to ELE prior to implementation.

(2) Delegate personnel as required to:

(a) Provide information for the project DD Form 1391.

(b) Obtain a validated EA or EA Exemption.

(c) Provide information for the project DD 1391C.

(d) Prioritize work request list (See paragraph 5.b.(4)).

(3) Assure that job order requests are initiated as soon as requirements become recognized. For projects over \$100,000, particular attention will be given to requirements in the first quarter so that job order requests are submitted to ELE by 15 Dec and can then be considered for the budget FEP program for the next year.

c. Organizational Coordinators will:

(1) Assure that only valid, complete, clear, prioritized, approved job order requests are forwarded to ELE.

(2) Provide prioritized list of uncompleted job order requests, which are not FEPs to ELE by 1 Oct, 1 Jan, 1 Apr and 1 Jul.

d. C/ELE will:

(1) Approve or disapprove job order requests within his delegated authority and process requests beyond his authority to the Commander for approval action.

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(2) Process job order requests in accordance with DA Pamphlet 420-6 and AR 420-17.

(3) Maintain project records in accordance with AR 420-17.

(4) Schedule projects in compliance with assigned priorities, manpower availability, season limitations, and availability of material.

(5) Coordinate starting/scheduling dates with affected activities.

(6) Provide status of approved job order requests from engineering through completion.

(7) Notify requestor of final action taken by the FEP and Commanding Officer.

(8) Submit the FEP Program to HQ CECOM for approval and notify TYAD organizational elements of the approval action when received.

(9) Submit projects within the FEP to HQ AMC I&SA and HQDA for technical approval as required by Appendix A.

(10) Provide project inspection and final contract acceptance, unless delegated to requesting activity.

6. Approval of Facilities Engineering Job Order Requests - See Appendix A.

a. The Commander and his/her designated representatives are the only authorized TYAD project approval authorities and will approve or disapprove all job order requests on the type of Facilities Engineering and dollar limitations shown in Appendix A.

b. Projects in excess of the Commander's approval authority will be signed by the Commander and forwarded to higher headquarters by ELE for review and approval.

c. Family Housing job order requests will be processed in accordance with the latest Memorandum of Agreement-Coordination of Engineering and Housing Functions.

7. References –

a. DA Pamphlet 420 Series, Facilities Engineering.

b. AR 415-35, Minor Construction.

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- c. AR 420 Series, Facilities Engineering
- d. AR 5-20, Industrial Activities and Labor Relations, Commercial/Industrial Type Activities.
- e. AMC 420 Series, Facilities Engineering.
- f. AR 415-15, Military Construction Army (MCA) Program Development.
- g. DESCOM Reg 420-1, Resource Management System.
- h. AR 11-18, Economic Analysis and Program Evaluation for Resource Management (as supplemented).
- i. AR 210-50, Housing Management.

APPENDIX A
FACILITIES ENGINEERING PROJECT COST LIMITS (\$000)

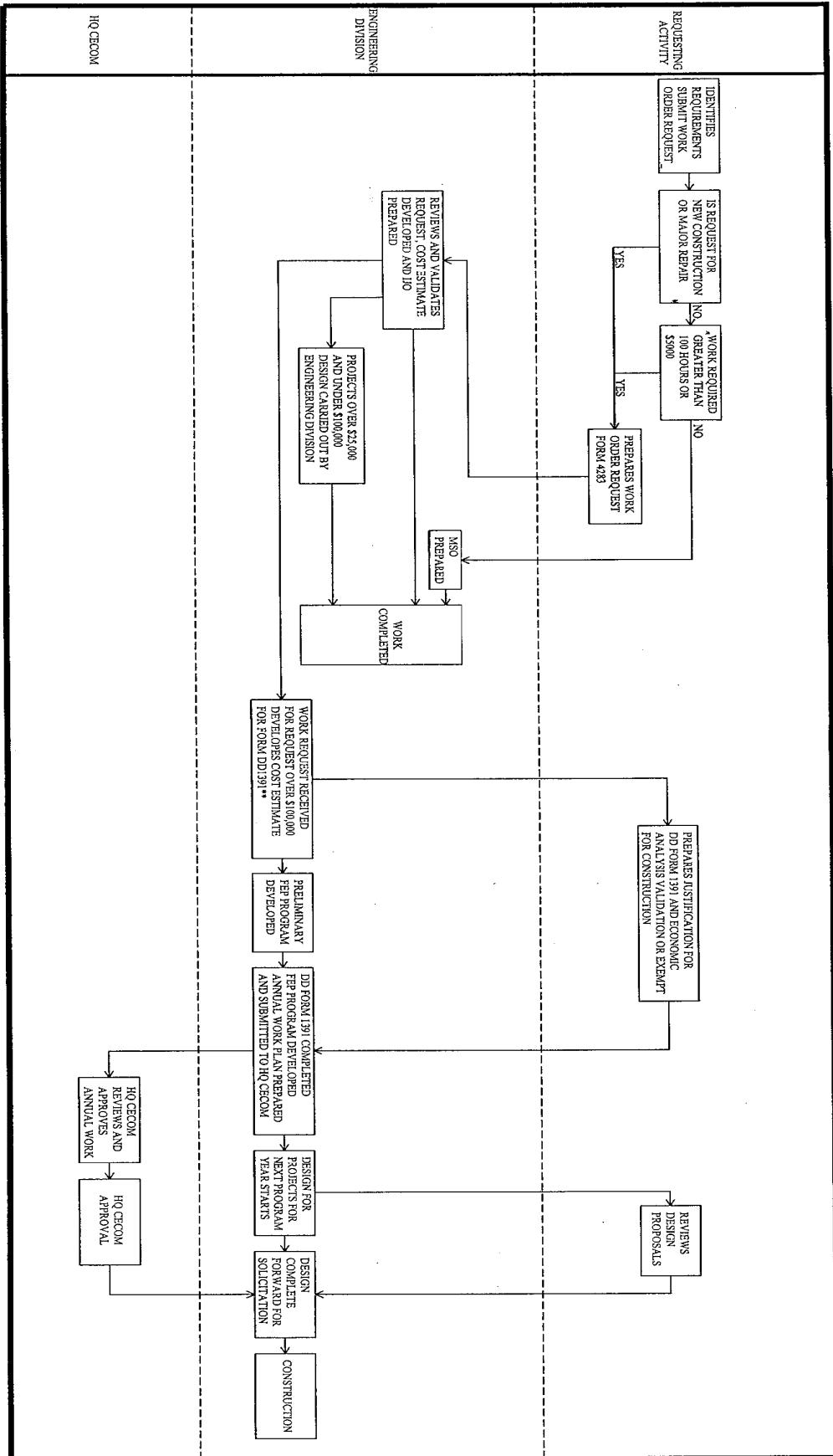
CLASSIFICATION OF WORK	Construction	Maintenance and Repair	Family Housing Construction	Family Housing Maint & Repair
	1	1	3	3
C/ELE DELEGATED MAX APPROVAL LIMIT	24,999	24,999	.500	5
HQ CECOM FEP PROGRAM APPROVAL THRESHOLD	Over 250	Over 250	-	-
COMMANDER MAX APPROVAL LIMIT				
TECH	750	300	3	15
ADMIN	750	1,000	3	15
HQ AMC MAX. TECH APPROVAL LIMIT	200	1,000	100	500
HQDA APPROVAL	-	Over 1,000	Under 75	500
OSD MAX APPROVAL LIMIT	-	-	500	-

NOTE:

1. These limits do not apply to Family Housing.
2. This authority can be delegated to C/ELE.
3. Family Housing project cost limits have several subcategories. Refer to AR 210-50 as supplemented for a description.

Appendix B.
Engineering Div. Work Flowchart

APPENDIX B
ENGINEERING DIVISION WORK FLOWCHART



** WORK ORDERS MUST BE RECEIVED BY 31 OCTOBER TO BE INCLUDED IN FEP PROGRAM FOR BUDGET AND PROGRAM YEAR.