
HOSPITAL MORTGAGE INSURANCE PROGRAM

SECTION 242 OF THE NATIONAL HOUSING ACT

CONSTRUCTION GUIDE



**OFFICE OF ARCHITECTURE AND ENGINEERING
FEBRUARY 2014**

FORWARD

This Guide has been prepared by the Office of Healthcare Programs' Office of Architecture and Engineering to provide guidance for hospital construction projects under FHA's Section 242 Hospital Mortgage Insurance Program. The Guide is presented in four parts:

PART I – OVERVIEW OF CONSTRUCTION PROCESS AND REQUIREMENTS

PART II – GUIDE FOR PROJECT APPLICANTS – CONSTRUCTION MANAGEMENT SERVICES

PART III – GUIDE FOR PROJECT APPLICANTS – DESIGN-BUILD SERVICES

PART IV – ENVIRONMENTAL REVIEW AND REQUIREMENTS

Contents within asterisks have been changed in 4165.1 REV-1, CHG-1, 2/7/14

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GLOSSARY OF ACRONYMS

PART I – OVERVIEW OF CONSTRUCTION PROCESS AND REQUIREMENTS

1. INTRODUCTION

a. The Office of Architecture and Engineering (OAE)

This office within the Office of Healthcare Programs (OHP) is responsible for the architectural-engineering technical oversight for the FHA-242 design and construction projects. Once a project passes the preliminary financial review and receives a favorable determination, OAE is asked to assign a Project Manager for a particular FHA-242 project. OAE works in conjunction with the assigned HUD OHP Account Executive all through the various phases of the project---from the conceptual stage, through the application stage, the commitment and initial endorsement stages, construction and through to the close out of construction. OAE is also responsible for reviewing physical changes to the project parcel that may occur during the 25 year typical mortgage insurance period.

b. Typical Steps in OAE Review

- Participating in Pre-Application Conference
- Conducting an architectural-engineering orientation meeting
- Determining application completeness
- Participating in Initial Site Visit with the HUD OHP/OHF Customer Service Team
- Review of the FHA-242 Application
 - Recommendation to the Account Executive of Initial (or Revised) Application Approval (based upon cost feasibility)
 - Recommendation of Approval for Commencement of Site-Preparation Work after environmental review approval+
 - Recommendation for Approval of Pre-Commitment work to the Deputy Assistant Secretary after Representations and Warranties are satisfactorily approved+
- Recommendation to Account Executive to Proceed to Commitment:
 - Must have OAE approved drawings and specifications (fixed scope)+
 - Firm fixed construction cost-fully executed construction contract+
 - Executed Owner-Architect Agreement+
 - Approved HUD-92013
 - Environmental Review Approval (HUD-4128)+
- Conducting a Pre-Construction conference+
- Recommending the Project Proceed to Initial Endorsement to the Account Executive
 - Must have current certified metes and bounds survey of all properties included in the mortgage with legal description and legal opinion stating that the legal description submitted reflecting the certified land survey is the property included in the FHA-242 project *and whether it is owned in fee simple or has a leasehold interest, etc. Note: A draft survey will suffice until just prior to the closing date upon which OAE will review and approve the finalized certified survey.*

- Must have acceptable engineer's sub-surface investigation and report+
 - Must have evidence of zoning compliance+
 - Must have building permit+
 - Must have assurance of utility services for water, electric, gas, sewer, as applicable+
 - Final Approval For Early Commencement of Work (Form 2415)+
 - Reviewing the Initial Construction Advance+
 - Performing monthly review of construction advances and recommendations of approval and conducting site inspections during construction every other month+
(SEE ITEM 15, 11-Step Construction Draw Procedure for Insurance of Advances)
 - Recommendation of Approval of Change Orders+
 - Recommendation to Account Executives for Line Item Transfers+
 - Setting Substantial Completion Date with the Architect, Owner and Contractor
 - Conducting a Final Inspection+
 - Recommending Final Construction Closeout to the Account Executive+
 - Making architectural-engineering reviews of proposed changes to be made to the project site during the loan period
 - Performing other architectural-engineering activities during the application or mortgage period as management determines necessary
- *Note: These are typical requirements for an FHA-242 project. Check with the OAE Project Manager for the necessity of those items marked with a plus symbol (+) for Section 223(a)7, 241 or 223(f) loans as some may not be necessary in all cases.*

2. DESIGN OF THE PROJECT AND CONTRACT REQUIREMENTS

- a. **Pre-design meeting.** The design of a project should begin with the scheduling of a pre-design meeting or teleconference with OAE. This usually occurs after the pre-application conference arranged by the HUD Account Executive but it may be held at any time prior to the pre-application conference, however. Projects however may be past the pre-design stage at the time the conference is held. The conference should be attended by the applicant (the mortgagee), the project architect, and the mortgagor as a minimum. It is recommended that the conference agenda include a written program which sets forth the requirements of the facility, specification content, the need for current cost estimates, and the responsibilities of all concerned with the project. This is the best time to cover all applicable design and construction requirements including those for accessibility noted in 2.b.
- b. **Construction standards and minimum requirements.** "The Guidelines for Design and Construction of Health Care Facilities", American Institute of Architects (AIA), 2006 Edition or the American Society for Healthcare Engineering of the American Hospital Association (ASHE) 2010 "Guidelines for Design and Construction of Health Care Facilities" may be utilized (or later edition). A thorough study of these standards by the mortgagor and his architect is necessary before the design of the project is started. These standards constitute the minimum requirements for construction. Other recommended design and construction contract guide material

includes the OHP Design-Build Policy and its concomitant documents (Part III of this Guide). HUD Form 92442 is required to be utilized for lump sum construction contracts *as modified for Section 242 requirements (including the FHA-242 retainage and liquidated damage requirements).* Consultation services on the technical and administrative aspects of the functional program in existing facilities, or the proposed programs for new facilities are available upon request from the Office of Architecture and Engineering (OAE) within the Office of Healthcare Programs.

Accessibility requirements are included in the construction standards and minimum requirements noted above as a result of the Americans with Disabilities Act (ADA) and also by Section 504 of the Rehabilitation Act. The United States Department of Justice (DOJ) regulations for Title II & Title III of the ADA, along with the DOJ 2010 Standards for Accessible Design, are applicable for the design and construction of hospitals. If there is any Federal funding of any kind, such as funding from HUD's CDBG program, or funding from another Federal agency, such as the U.S. Department of Health and Human Services (HHS), Section 504 of the Rehabilitation Act will apply, including Section 504 regulations promulgated by the funding agency, and their applicable accessibility standards.

- c. **Accessibility Requirements:** The design and construction of hospitals is covered by the Americans with Disabilities Act (the "ADA") the implementation regulations for Title II of the ADA (and Title III as applicable) which apply to new construction and facility alteration; and the Department of Justice's 2010 Standards for Accessible Design. Hospital projects must meet all applicable accessibility requirements, including those for existing facilities. Existing facilities are subject to the program accessibility requirements under Title II of the ADA and, as applicable, the readily achievable barrier removal requirements under Title III of the ADA. In addition, Section 504 of the Rehabilitation Act of 1973 and the implementing regulations found at 24 CFR Part 8 also apply to hospital projects receiving federal financial assistance under Section 242 of the National Housing Act.
- d. **Submission of drawings, specifications, and other material.** To assist the applicant in pursuing an orderly routine in the development of the project, the drawings and other design material shall be submitted to HUD/OAE in three stages:
 - (1) **First Stage – Schematics.** When the building site has been selected, the next planning step takes the form of schematic drawings. The information contained in the narrative program (described under paragraph 2-1) will be translated into terms of required areas and their functional relationship. Based on the narrative program and studies by the applicant's architect, the results should be a fairly accurate concept of the final form of the facility. These drawings should be studied in detail by all concerned and necessary changes should be made at this time. Schematic drawings are to be submitted with the initial Application to be fitted within the binder (or submitted by reference in the binder to a separate submission if larger drawings are submitted for review.). If drawings and specifications are further developed at the

application stage, the more developed documents should be submitted to OAE at that time.) The Owner's Representative (required on all construction projects) *if contracted independently,* must submit his/her contract with the Owner for OAE review and approval. After the schematic drawings have been agreed upon, a reasonably accurate estimate of the project cost can be made. This estimate should include the cost of construction of the building(s), fixed and movable equipment, architect's and consultant's fees, inspection and supervision by the architect and oversight by the Owner's Representative, parking areas, grading, walks, roads and landscaping, and Owner's contingency. HUD Form 92013 must be completed for the formal application. Owner's contingency shall be a minimum of 5% for new construction and 10% for renovation. Necessary remediation costs for environmental matters including the environmental consultant must also be included on the HUD 92013 form.

If a construction manager is already involved or if this is a design-build type contract, construction insight should be provided by these persons at this time to allow for value engineering, scheduling and methods and materials insight. Once this stage is acceptable to the Owner, the Owner's Representative (required for all FHA-242 construction projects) should authorize the architect to proceed with the second stage development of the drawings and specifications.

Note: Drawings and specifications must address all minimum requirements and standards throughout their development from schematic stage through the final contract document phase including accessibility standards noted above in section 2.b.

- (2) **Second Stage – Preliminaries.** After the schematic drawings and initial cost estimates have been approved, the drawings and specifications should be developed to a larger scale indicating major items of equipment for the building. During the preliminary stage, the architect and his consulting structural, mechanical, and electrical engineers will have been studying the program requirements to determine the most economical and practical systems of foundations, structural framing, plumbing, heating, electrical distribution, ventilation, and air-conditioning. They must determine which type of fuel is most economical, which types of elevators and control devices will be most satisfactory, which materials are most suitable from the point of view of economy, function, and maintenance. These design solutions must be decided before proceeding with the third stage (working drawings). Each floor plan should show the square feet of space and the number of beds required, and should indicate the function of each room.
- (a) The architect in conjunction with other members of the project team should now review the cost estimate and advise the applicant if adjustments in the budget are required.
- (b) During this planning phase, the architect should have given all those concerned with the project (once again, including a construction manager or a design-builder if employed) ample opportunity to study the drawings and

specifications and to make comments and recommendations. The design team may now proceed with the development of final working drawings and specifications.

- (3) **Third Stage – Working Drawings.** The 100% working drawings and specifications are the final stage of the design process. These are the drawings upon which the contractor will base his bid. It is of the utmost importance that they represent in every instance and great detail exactly what is to be constructed. This will minimize misunderstandings, claims for extras, and change orders during the construction period.
- (a) The 100% final working drawings and specifications shall comply with the requirements contained in Guidelines and HUD regulations. Separate drawings and specifications shall be prepared for each of the branches of work. (1) architectural, (2) structural, (3) mechanical, and (4) electrical, etc.
- (b) The working drawings together with the specifications are the most important documents constituting the contract. They translate concept into accomplishment. Depending upon their quality, exactness in estimating and effectiveness in building will occur. Their careful preparation is the best insurance for trouble-free execution of the work.
- (c) Upon completion of the working drawings and specifications, a revised estimate of cost for the work should be prepared by the architect or an estimating consultant to alert the applicant on the amount of financial obligation he must be able to meet. In meeting the budget needs, the architect's working drawing package must also satisfy the owner's representative and builder (if this is a CM type contract or a design-build contract).
- e. **Contract Specifications.** The title sheet shall contain the name of the project, its location, type of work, name and address of the owner, the architect, the consultant (if applicable), the date of specifications, a brief description of the work. The specifications shall indicate whether public advertisement or selective bidding is to be used. An index shall be included.
- (1) Instructions to Bidders. The instructions to bidders shall include detailed information regarding various legal or established requirements in connection with the preparation, submission, and consideration of proposals, and for the construction of the project. Time for completion, liquidated damages, the handling and return of bid deposits, and details relating to bidding and contract award shall also be included. If the Schedule of Drawings is not set forth as a separate section of the specifications, it should be included in these instructions.
- (2) Bid forms. A separate bid form shall be included for each part of the work for which a bid is requested. The bid forms shall contain all pertinent agreements including all addenda relative to the contract which the bidder shall acknowledge

when filing his proposal. When alternate bids and/or unit prices are required, they shall be made a part of the proposal. The amount and type of bid deposit shall also be stated.

- (3) Form of owner-contractor agreement. For the advance information and knowledge of bidders, the construction contract form which must be a firm fixed price shall be contained in the specifications if the project is a lump sum contract. HUD-92442 shall be utilized. If the construction manager contract is anticipated, a Part B Construction contract (noted in OAE handbook 2.4) must be utilized. If a design-build construction contract is anticipated, the HUD-92442 lump sum form of construction contract agreement must be utilized *and the HUD acceptable form of agreement must be modified to meet the Section 242 requirements.*
- (4) Supplemental general conditions. General conditions must be supplemented when exceptions or additional information are required in connection with the project and may include such items as conditions relating to the geographical area, laws, codes, and regulations of area in which the building is located. HUD-2554-Supplementary Conditions must be included in every construction contract.
- (5) Alternates. A reasonable number of alternate prices may be requested in the bidding documents. Alternates shall be all add or all deduct and listed in numerical order with the highest priority item being the first alternate. N.B.-Alternates are not permitted in Owner- Construction Manager Contracts.
- (6) Technical specifications. The technical portions of the specifications are requirements and instructions for all trade sections or divisions of the work describing the materials, workmanship, and equipment required for the construction of the project.
- (7) Addenda. Addenda to the drawings and specifications consist of notices or bulletins sent to bidders to notify them of any necessary corrections, interpretations, or changes in the requirements of the drawings and specifications. Addenda must have the approval of the State agency and HUD/OAE and be issued in time to reach bidders prior to their submission of bids.
- (8) Approval and format. The applicant will obtain approval of final working drawings and specifications from the HUD/OAE office before the project is advertised or placed on the market for bidding.

NOTE: In order for OAE to be able to recommend approval of the project to go to commitment OAE must first review and approve the drawings and specifications. For Owner-Construction Manager contracts, 80% complete drawings and specifications are required for a GMP as a minimum. For lump sum contracts (including design-build) 100% complete final drawings and specifications are required for approval by OAE prior to OAE's giving a recommendation to go to commitment.

For initial endorsement, 100% final drawings and specifications are required no matter whether the project be lump sum, CM or design build. The front cover of each set of drawings and volume of the specifications must be signed by the owner, the architect/ engineer, the contractor and the surety and must be provided for the initial endorsement.

f. Mandatory Requirements to be Specified

- (1) **Time for completion.** The specifications and Owner -Contractor Agreements must stipulate a time for completion, in calendar days or as a fixed date, for each construction contract included in the project. This is an important item and is used, among other things, to assure that all bidders are competing on an equal basis.
- (2) **Labor standards.** The Labor Standards which include the Copeland Act, Anti-Kickback Regulations, the Davis-Bacon Act, and the assurance of non discrimination in contract employment for all contractors, subcontractors, and vendors are required by inclusion of the Supplementary General Conditions HUD-2554 in the construction documents. The following will also be required to be incorporated via modification of HUD-2554 or as freestanding contractual provisions:
 - (a) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any work week in which he or she is employed on such work to work in excess of eight hours in any workday or forty hours in such work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of eight hours in any workday or forty hours in any work week.
 - (b) **Violation; liability for unpaid wages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages.
 - (c) **Withholding for unpaid wages.** HUD or its designee shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under this contract, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages as provided in the clause set forth in subparagraph (2) of this paragraph.
 - (d) **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (a) through (d) of this paragraph and also clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be

responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (a) through (d) of this paragraph.

- (3) Wage determination applicability. Applicants must obtain minimum Federal wage determinations as necessary for inclusion in the construction contract provided through HUD/OAE. The wage rate that is in effect at the time of the *earlier of* either the early start date (Form 2415 is fully executed) or the date of the initial endorsement is the wage rate required for the construction contract in the FHA-242 program.
- (a) The request should contain the following information:
1. Name of facility, project number and location including county;
 2. Type of project, i.e., new hospital;
 3. Estimated value of construction contracts;
 4. Description of project, type of building, number of stories, number of elevators, and whether the building is air conditioned;
 5. Name and address of project architect;
 6. Approximate date project will be advertised for bids, bid opening date, and proposed date for award of contract;
- (b) If construction does not begin within 90 days of initial endorsement, any modifications to a wage decision that occur after initial endorsement become applicable to the construction work, unless DOL approves a request from HUD for an extension. See DOL regulations at 29 CFR 1.6(c)(3)(ii) and (iv). In the less likely case of a “project” wage determination, issued upon request for an individual project, the wage determination is effective for 180 days from the date of the determination. [29 CFR 1.6(a)(1)] *This is applicable to all HUD FHA-242 construction contracts.*
- (4) General conditions. The General Conditions, AIA Document 201, or any other general conditions developed by an acceptable organization are to be made a part of the specifications. If they are not used, the following must be incorporated into the general conditions:
- (a) The following paragraph must be incorporated into the general conditions and also appear at the beginning of each section or division of the specifications:
- "Notwithstanding any reference in the specifications to any article, device, product, material, fixture, form, or type of construction by name, make or catalog number, such reference shall be interpreted as establishing a standard of quality and shall not be construed as limiting completion; as the contractor, in such cases, may at his option use any article, device, product, material, fixture, form or type on construction which in the judgment of the Architect expressed in writing is equal to that specified."*

- (b) Representatives of the Secretary, HUD, *the Lender,* the State agency and local authority shall have access to the work site.
- (c) The mortgagor shall furnish 100% Performance and Payment bonds (each in the minimum amount of 100 percent of the accepted price). The standard forms to be used are HUD-92452M, Performance Bond-Dual Obligee and HUD-92452-A, Payment Bond. Draft bonds are required for review by OAE prior to recommendation to go to commitment in order for OAE to determine whether the bonds are issued by an acceptable surety. Fully executed bonds are required for initial endorsement.
- (d) The contractor shall obtain and maintain insurance for itself and all Subcontractors to include coverage for:
 - 1. Statutory workmen’s compensation and employer’s liability;
 - 2. Bodily injury liability (\$300,000/\$500,000);
 - 3. Property damage, *ie. Builder’s Risk (\$100,000/\$300,000);*
 - 4. Owner's protective liability for bodily injury (\$300, 000/\$500,000), property damage liability (\$ 1,000,000); and
 - 5. Comprehensive General Liability Insurance and Automotive Liability Insurance (\$3,000,000).
- (5) Fire and extended coverage. The contractor shall insure the building or other work included in the contract against loss or damage by fire and against loss or damage covered by the standard extended coverage insurance endorsement. The policies shall have attached thereto a standard mortgage clause making loss payable to the mortgagee and the secretary as their interests may appear, and certificates of the insurance company as to the amount and type of coverage, and the terms of policies shall be delivered to the owner before any partial payment is made. The policy shall provide for the inclusion of all other contractors, subcontractors, and others employed on the premises as named insured.
- (6) Competitive specifying. All manufacturers of materials and equipment of comparable quality should have an opportunity to receive consideration under competitive bidding conditions that are fair to the manufacturer, the owner, and the contractor. All bidders must be offered a definite basis for competitive bidding. The project specifications shall describe each item of material and equipment in terms sufficiently clear to assure that all bids made in compliance therewith will be for products of substantially the same quality. Conditions of limitations within the specifications which are designed to limit bidding to only of several known sources of supply may violate the principles of competition. The HUD/OAE office should be consulted for further information regarding acceptable methods of specifying materials and equipment.

NOTE: On design-build contracts, if the design-builder is not competitively bid and the design-builder does not competitively bid his subs, the Owner must retain a cost

consultant prior to the design-builder taking sub bids for the Owner to be able to evaluate the reasonableness of the subs bids.

- (7) Liquidated Damages. All FHA-242 construction contracts must contain provision for liquidated damages. Liquidated damages are assessed at \$.09/\$1,000 of construction cost for every day the contractor is responsible for delaying the project past the defined substantial completion time causing the owner to suffer financial loss.

3. BIDS, AWARDS, CONTRACTS, AND MODIFICATIONS

- a. Bidding procedures.** Construction contract awards shall be based on competitive bids. In obtaining competitive bids, either of the following methods may be used:
- (1) Open bidding: public advertisement in suitable newspapers (advertisements must appear prior to the release of bidding material to any bidder).
 - (2) Selective bidding: selection of and invitation to three or more competent bidders to submit bids. When bids are obtained from a selective list, care should be taken to ensure that each of the invited bidders is willing to bid. See sample Pre-Qualifications Statements for general contractors and subcontractors in Part 11 – Guide for Project Applicants – Construction Management Services.
- b. Opening and Inspection of Bids.** Bids shall be opened publicly at the time and place stated in the invitation for bids, and the owner shall furnish the HUD OAE with one copy of a tabulation of all bids received as required. The applicant shall make the original bidding documents available for inspection by authorized representatives of the Secretary, HUD.
- c. Low bid exceeds estimated costs.** When the bids received are higher than the estimated costs shown in the approved application, the applicant may:
- (1) Demonstrate to the satisfaction of the Secretary, HUD, that additional financial resources are available to pay the increased cost.
 - (2) On the basis of revised drawings and specifications, solicit bids from the original contractors; however, prior to re-advertising, the revisions must have the approval of OAE.
 - (3) Negotiate, within reasonable limits; i.e., approximately five percent with the lowest bidder on items of construction. The negotiations can be at the discretion of the applicant; however, the HUD/OAE should approve all such negotiations since they could, if extensive enough, change the project concept.
- d. Approval of Contracts.** Construction work shall be performed by the "lump sum" (fixed price) or GMP methodology via a lump sum contractor, a design-builder or by a

Construction Manager who is actually a construction contractor. The work may be let under one contract, or bids may be received separately for major branches of the work. In either case, the contract shall be awarded to the responsible bidder submitting the lowest responsible and responsive bid. Fully executed construction contracts must be reviewed and found to be acceptable by OAE before OAE can recommend the project proceed to commitment.

- e. **Disqualification of certain bidders.** Anyone furnishing design and/or supervisory services on a project must be disqualified as a bidder on such projects. The acceptance of such a bid would be in violation of the requirements of competitive bidding since the firm or individual providing such service is in a preferred position. This does not apply to design-build contracts however.
- f. **Pre-award conference.** Prior to award, the low bidder and known subcontractors may be required to attend a pre-award conference for the purpose of formulating an affirmative action program relating to equal employment opportunity during the construction of the project. This requirement may be accomplished at the time as the Preconstruction Conference (Paragraph 7 below).

- 4. **RESERVE FOR REPLACEMENT OF EQUIPMENT (PROPRIETARY FACILITIES).** Proprietary facilities are required to make payments into a reserve fund for replacement of equipment. The annual payment to the reserve is 10% of the amount of the equipment included in the replacement cost.
- 5. **RESPONSIBILITY FOR CONSTRUCTION.** The Owner is responsible for completing the work in accordance with the approved drawings and specifications and for securing compliance with labor standards. The full-time Owner's representative cost of service is allowable as part of the HUD Form 92013 budget and may be included on the fee and other cost line item (for reimbursable costs) for an independent consultant or he/she may be on the hospital's in-house staff.
- 6. **PRECONSTRUCTION CONFERENCE.** Immediately after signing all building construction contracts and notification that the hospital has received a commitment, the mortgagor shall arrange for a meeting of the HUD/OAE Project Manager with the architect, the owner's representative, prime contractor, and the principal subcontractors as necessary as well as with the mortgage banker and loan servicing agent. This discussion of the responsibilities of the various parties at this point in time will help to overcome misunderstanding and problems which may arise during construction. On joint projects, representatives of other agencies may wish to attend the meeting.
- 7. **LABOR STANDARDS.** *Also, see part 1, Item 2.f Mandatory Requirements to be Specified.* Securing compliance with labor standards will require the mortgagor (owner) and its construction contractor to:

- a. Check weekly payrolls to assure that they contain the required information and that Labor Standards are properly certified and are accompanied by the required Anti-Kickback affidavits.
 - b. Verify that wages are not less than those shown on the applicable Federal wage determination issued by the U.S. Department of Labor, that all classifications employed are listed therein, that the requirements are met if apprentices are employed, and that all laborers and mechanics have been paid not less than 1 ½ times their basic rate of pay for all hours worked in excess of eight hours in any workday or 40 hours in any work week.
 - c. Assure that a copy of the wage determination is posted at the site in a place where it can be easily seen by the workers.
 - d. Maintain and preserve all payrolls, affidavits, and other pertinent data during the life of the contract and for three years after completion of construction.
 - e. Withhold sufficient payment from the contractor, in the event of an alleged labor standards violation, in accordance with the provisions of the labor standards.
 - f. In the case of a violation, submit a report describing the violation and its settlement to the HUD/OAE office (in accordance with the labor standards).
- 8. CHANGE ORDERS.** If the applicant desires to make a change which constitutes a significant betterment of the project, the change order must be reviewed and approved by the HUD/OAE Office. Request for approval of change orders during a construction project must come directly from the Owner, *copying the Lender,* stating in writing where the funds will be coming from in order to support the changes. OAE must be kept informed of all proposed change orders and all change orders must be on AIA change order forms or similar format fully executed. If there are insufficient funds in the Owner's Contingency, OAE will not authorize the approval of such change. OAE will not approve change orders in monthly advances including such change orders that have not been previously submitted in writing by the hospital and approved by OAE. *The Lender must approve all change orders as well.*
- 9. SUBSTANTIAL COMPLETION DATE.** *The date of substantial completion is established by the Owner, the architect, the contractor and OAE. After substantial completion, the borrower must submit a cost certification.* These costs will be reviewed by HUD/OAE.
- 10. OAE FINAL INSPECTION.** The applicant shall arrange for a final inspection by OAE by submitting a request to the OAE when the construction work is complete.
- a. As-built drawings, showing all changes, deviations, and corrections, particularly relocations of electrical, mechanical, and other utility services, should be prepared and maintained by the *owner*.

- b. The *owner* shall inspect the project prior to the expiration of the guarantees contained in construction contracts so that any defects resulting from the use of inferior materials, equipment, or workmanship may be corrected.

11. INCOMPLETE ON-SITE AND OFF-SITE FACILITIES. In the case of incomplete on-site and off-site facilities, approval of the final advance of mortgage proceeds may be given when the incomplete items are minor in nature, all off-site utilities such as sewer, water, electrical, and gas facilities are installed and connected, adequate facilities for ingress and egress are provided, and a cash escrow for completion of the facilities is deposited with the *Lender* under an appropriate agreement. Except for landscaping and exterior improvements which cannot be completed because of weather, the amount of the escrow must be at least one and one-half the OAE's estimated cost of completion to assure an incentive to complete the work taking into consideration a possible rise in cost. The escrow for landscaping and exterior improvements must not be less than the estimate of cost of completion by the Owner/Architect and the OAE. It is not anticipated that there will be changes during construction.

12. EQUIPMENT

- a. *Owner's* responsibility. It shall be the responsibility of the *owner* to prepare a list of and to select and purchase all necessary equipment for the complete functioning of all services included in the project. Consumable items, disposable items, and items of current operating expense such as fuel, food, and drugs are considered supplies and shall not be included in the project equipment list.
- b. Classification. Equipment items shall be classified in two main groups:
 - (1) Fixed (realty) equipment is defined as equipment which is permanently affixed to the building or which must be connected to a service distribution system designed and installed during construction for the specific use of the equipment. It includes items such as extractors, walk-in refrigerators, inter-communication systems, and built-in casework.
 - (2) Movable (non-realty) equipment is defined as all items of equipment which are not considered to be fixed equipment. It includes items such as operating tables, obstetrical tables, anesthesia apparatus, wheeled equipment, portable paging systems, etc. OAE is not responsible for moveable equipment.
- c. Purchase. Items of fixed equipment not included in the construction contract are to be purchased competitively, except where justification is submitted in writing by the applicant and approved by the State agency and the OAE.
 - (1) Movable equipment may be purchased on the open market, by securing quotations, or through competitive bidding procedures.

- (2) Applicants who do not include all fixed equipment in the construction contract and let separate contracts for furnishing and installing certain items of fixed equipment must include in such separate contracts all provisions for contract security, insurance, and compliance with labor standards except that labor standards need not be included for contracts under \$2000.
- d. Equipment lists. Separate lists of equipment are to be submitted by the applicant as soon as possible after the award of the construction contract for all fixed equipment purchased outside the construction contracts, and all movable equipment.
- (1) Fixed equipment which is not to be included in the construction contract shall be shown on the preliminary stage of the plans (second stage) to ensure its coordination with the architectural, mechanical, and electrical phases of the work.
- (2) The purposes of the equipment lists are:
- (a) To provide the applicant with a mechanism for systematically determining the equipment needed for the facility; and
- (b) To provide the HUD Office with the information necessary to determine that the equipment is essential to and adequate for the services provided by the facility, and that the items to be purchased are of reasonable cost and allowable for inclusion in the estimated replacement cost.
- (3) The approved equipment lists shall not be used as a means of policing the selection and purchase of equipment by applicants. In the purchase of equipment the applicant may make substitutions, omissions, or changes in quality of items, provided that the nature and extent of the services are not materially affected by the changes.
- (4) The cost of all movable equipment should include equipment on hand and equipment to be purchased.
- (5) When rooms, such as bedrooms, are to be identically equipped, the equipment list may show the equipment planned for one room only and identify the additional rooms which are to be so equipped. Cost estimates should be projected for equipment to be purchased for all rooms. A recapitulation for equipment items by departments should also be submitted.
- e. Amending the equipment list. The applicant should amend the equipment list for either of the following purposes:
- (1) To add additional items not included on the original approved list.
- (2) To reflect a change in the list made necessary by a change in the scope of the project or a change in the services to be provided. Equipment lists may be amended by submitting revised pages showing the items deleted, changed, or added.

13. FINAL CONSTRUCTION CLOSEOUT BY OAE. After substantial completion, the construction project needs to proceed to construction closeout. *As part of the closeout process, OAE will need to complete its OAE Final Report on Construction, requiring HUD to receive and process the following documents:

- a. Executed copy of the Certificate of Substantial Completion (AIA Form F704)
- b. Certificate of Release of Liens – (AIA Form G706)
- c. Consent of Surety for Final Payment- (AIA G707)
- d. Architect's and Contractor's final Certificate for Payment
- e. Architect's letter asserting compliance with the State Department of Health or Authority Having Jurisdiction (AHJ)
- f. Certification that all change orders have been included in d. above
- g. HUD Form 92330 – Mortgagor's Certificate of Final Costs with CPA audit opinion attached
- h. Either HUD form 92330-A Contractor's Certification of Final Costs with CPA audit opinion attached (CM project or lump sum project where identity of interest exists) or Contractor's letter certifying as to final costs (for design-build and lump sum projects.)
- i. Certificate of Occupancy from approving building authority*

The final advance for construction usually involving the last retainage payment to the construction contractor is paid out at the final endorsement after the above documents have been assembled and approved by OAE.

OAE shall take into consideration advice from HUD Labor Relations to validate there are no outstanding labor relations violations. Should any violations remain outstanding, HUD will not proceed to final closing unless there are no labor standard violations or a deposit is made to the U.S. Treasury of funds sufficient to meet any wage restitution requirements. Section 212 of the National Housing Act states that the Secretary shall not insure a mortgage unless the contractor has certified that Davis Bacon Wage Rates have been paid, and also requires payment of overtime on hospital construction.

Final recommendation of OAE approval to closeout the construction project is transmitted in writing to the OHP Account Executive assigned to the FHA-242 project.

14. LOAN MODIFICATION PROJECTS – After construction is completed, the Owner may request to do work on or change the configuration of the mortgage parcel. At the request of the Account Executive, the OAE may review such requests from the hospital, review drawings and specifications and/ or surveys, etc. to determine whether the proposed change meets current codes and guidelines and does not adversely affect the existing mortgage.

15. 11-STEP CONSTRUCTION DRAW PROCEDURE

STEP 1 – Two original draw packages are prepared by the *Lender or loan servicer with information gathered from the Hospital, Contractor, and the Project Architect among other parties.* The draw packages include the following:

AIA Document G702 (Application and Certification for Payment **with wet signatures**) is prepared and signed by the Architect and General Contractor, and is based on **AIA Document G703** (a detailed description of each element of the Draw Request).

FHA Form 92448 (Contractor's Requisition to the Mortgagor (Owner)) **with wet signatures**) is prepared by the General Contractor and certified by the Architect. This form details the status of the project in terms of the total cost of work completed, stored inventories of materials, retainage, previous payments and net amount due on this requisition. The net amount due on this requisition for construction should match the draw amount shown on AIA Document G-702.

Form HUD-92403 (Application for Insurance of Advance of Mortgage Proceeds **with wet signatures**) is the document in the package that summarizes all other information. The first page is a request to the Mortgagee (Lender) from the Mortgagor (Owner) to pay specific amounts in this particular draw of construction cost and all other categories of cost found in the Building Loan Agreement that was signed by all parties at initial closing. The first page is developed by the hospital and signed by an authorized hospital official.

For each contractor's requisition a statement must be provided, certifying that the laborers and mechanics employed in construction of the project have been paid not less than the wage rates required under Section 212 of the National Housing Act.

Draw Back-up Documentation in electronic format on a CD– All the detailed receipts, invoices, and payment authorizations necessary to justify the draw requests in the same order and identified under the same cost categories as those listed on the first page of **Form HUD-92403**.

STEP 2 – The two complete original draw packages are sent by the hospital to the *Lender* (or servicer) via over-night express. The *Lender* (or servicer) fills out and signs the second page of **Form HUD-92403**. The *Lender* (or servicer) identifies the amount to be drawn from mortgage proceeds for this draw, and, conversely the amount to be drawn from the mortgagor's cash (which was escrowed with the banker/servicer at initial endorsement) for this draw, the total (after this payment) that will have been drawn from mortgage proceeds and the total (after this payment) that will have been drawn from the mortgagor's cash. The *Lender* (or servicer) also requests that HUD issue mortgage insurance for the amount requested to be paid from mortgage proceeds.

STEP 3 – The two original draw packages are sent by the *Lender* (or servicer) via overnight express delivery service to:

1. The Architect/Engineer staff member of the Office of Architecture and Engineering Services (OAE) assigned to the hospital (Hereafter referred to as the OAE team member); and
2. *The designated construction draw processor in OHF.*

STEP 4 – Concerning the copy sent to the OAE team member – This will trigger the OAE team member to schedule a **Site Visit** to the project site or to issue a Monthly Report in lieu of a Site Visit to determine verification information concerning the draw request.

STEP 5 – The OAE team member prepares a **Site Visit Report (or a monthly report in lieu of a Site Visit Report)**, which identifies any and all controversies, delays, and change orders. The OAE team member will also **approve or disapprove** the construction and construction related portion of the draw request on the first page of the **Form HUD-92403** by initialing (approving) the requested amount or any change, or striking a line item (disapproving) and initialing after checking the balance of current funds available on the Financial Record of Mortgage Loan Transaction, HUD Form 92451, as provided by the *Lender* (or loan servicing agent) to OAE. The reasons behind any disapproved or changed line items should be communicated in person or by telephone to OAE senior management, the construction draw processor, and the Account Executive.

STEP 6 – The OAE team member scans the Site visit report and initials/signs **Form HUD-92403**, which is scanned into a PDF File and emailed to the construction draw processor.

STEP 7 – The construction draw processor will review the **Site Visit Report** and initialed/signed **Form HUD-92403** from the OAE team member, and then initial/sign each approved item on the **Form HUD-92403**, or change amount(s) to those approved.

STEP 8 –The construction draw processor will define any variance from routine and draft a transmittal letter for signature. This letter authorizes the Mortgagee (or servicer) to release specific mortgage funds, and contains a copy of **Form HUD-92403** and **FHA Form 2448-Hosp attached.**

STEP 9 – The Director of the Office of Hospital Facilities (or other staff member to whom authority has been delegated) will sign the transmittal letter and fill in and sign the **Certificate of Mortgage Insurance** at the bottom of **Form HUD-92403** which authorizes the draw and conveys the approval of the Federal Housing Commissioner to insure the mortgage proceeds advanced through the draw.

STEP 10 – The signed letter together with the **Form HUD-92403, FHA Form 2448-Hosp** and the **Site Visit Report** will be placed in a PDF file and emailed to the *Lender* (or servicer) with the originals being sent via express delivery service.

STEP 11 – The *Lender* (or servicer) receives the PDF transmittal letter and releases approved funds to the Trustee of the Hospital.

PART II – GUIDE FOR PROJECT APPLICANTS: CONSTRUCTION MANAGEMENT SERVICES

1. CONSTRUCTION MANAGEMENT IN THE SECTION 242 PROGRAM

a. Purpose

This Technical Handbook provides management information for project sponsors, architect/engineers, construction managers, contractors, and other persons or groups concerned with the employment of Construction Management (CM) services in the planning, design, and construction of hospital facilities financed under Section 242 of the National Housing Act, Mortgage Insurance for Hospitals. It includes the mandatory Federal requirements as well as acceptable procedures for the selection of, and the awarding of contracts to, construction managers. In addition, it enumerates those items which should be included in a contract for Construction Management (CM) services. The procedures set forth herein are allowable within the limitations of existing Federal Statutes applicable to Federally Assisted construction projects. Particular attention has been given to satisfying the requirements of competitive bidding as they apply to such projects.

b. Development of the Construction Management Process

This document is the culmination of many years of experience in the development and implementation of the Construction (CM) process for hospital facilities in the Department of Housing and Urban Development (HUD). The HUD process is identified as Construction Management with Guaranteed Maximum Price (CM/GMP). The exhibits included in this handbook are intended as a guide and may be modified to meet specific conditions with the approval of the Office of Architecture and Engineering (OAE) in the Office of Healthcare Programs, as applicable.

If you are an Owner or *Lender* who is contemplating the construction of a project, the HUD Construction Management (CM) contract form may be helpful to you in preparing a contract document. If you intend to apply for Section 242 insured financing for a Construction Management (CM) project, this guide will be required. Minor changes in the contract format will be considered. However, the basic requirements which have been incorporated in the form will be changed only with the approval of the Director of the Office of Architecture & Engineering.

The funding programs of the Department of Housing & Urban Development (HUD) will have the same decision role in the Construction Management process as in other contract procedures. To assure that sufficient funds are available to the Owner to complete the project, there may be no mortgage insurance commitment for the project until a Guaranteed Maximum Price (GMP) is agreed upon and incorporated in the Construction Management Agreement. *The CM contract may include a statement that states it is only a valid contract subject to a successful FHA-242 Initial Endorsement. In some states execution by both parties starts the clock on a mechanic's lien and this would

compromise HUD's prime lien position. Therefore, the clause requiring a successful endorsement for it to be valid would not allow the lien clock to start.*

c. Construction Management Defined

Construction Management is a procedure by which an Owner, desiring to construct a facility of unusual scope and complexity, with a critical completion schedule, contracts for specialized services to provide the expertise, management, and guarantees necessary to produce a quality facility, on time and within the constraints of a budget. These critical elements of quality, schedule and costs are interrelated. The Construction Manager's job is to keep them under control from beginning of design through completion of construction. A Construction Management firm employed under the CM/GMP method of CM contracting functions acts as an independent contractor, under contract to the Owner, and as such does not function as an agent of the Owner. Under this procedure, the Construction Manager is responsible for cost estimates and cost control, review of design with a view toward value engineering, consultation on construction techniques, construction coordination and scheduling, and direction of all construction activities.

The HUD Construction Management (CM) approach to execution of a building program requires unique qualifications and capabilities on the part of the Construction Manager. It requires that the selected Construction Management firm have the qualifications to influence design decisions, the management capabilities to carry out the construction phase of the project, and the capacity to assume financial risks for completing the construction.

Adding the Construction Manager's talents to the design team enhances the Architect's design capabilities by providing knowledgeable consultation in the areas of construction costs, materials and methods of construction, manpower utilization, and scheduling of the work. One of the important benefits which come from the application of the Construction Management (CM) process is the acceleration of the project construction schedule through the use of phased construction. Finally, the Construction Manager can provide a vital connecting link between the designer and those who will be bidding the work. This should be effective in eliminating many of the conflicts and resulting expensive change orders which are prevalent in the traditional contracting method.

d. Be Aware of the Risks

Before an owner makes the decision to use the Construction Management (CM) process on a project, care should be taken to be sure that all risks have been investigated and that precautions have been taken to minimize those risks. Of utmost importance is the assurance that provisions have been made for control of the funds on the project. A complete accounting of those funds must be required in the Construction Management (CM) contract and the Owner must provide the necessary financial stewardship to insure that change orders to the CM and the subcontractors on the project are only for legitimate changes not provided for under the basic Construction Management (CM) contract. The

Owner’s representative must have the necessary financial and contract administration skills and experience to control the project funds in a manner which will insure that the Owner’s interests are protected throughout the entire project.

It is equally important that the CM selected for the project understands the meaning of providing a GMP and can demonstrate the fact through experience on previous projects. The acceptance of a GMP prior to completion of the final design documents can be effective in obtaining financing for the project at an earlier date than would normally be possible under a standard lump-sum bid project. The GMP must not be taken too early because the design documents may be insufficiently developed to obtain low construction costs and therefore an excessive number of change orders may result. More detail on the development and acceptance of the GMP is included in Chapter 5.

e. Office of Architecture & Engineering

The Office of Architecture & Engineering (OAE) is a component of the Office of Healthcare Programs (OHP), whose headquarters is in Washington, DC. This organization is responsible for administration, management and monitoring of the projects receiving financial assistance from DHUD/FHA and other entities. Applicants for hospital mortgage insurance are required to consult with this organization on design and construction related activities at the earliest possible stage of planning. If Construction Management is the choice of the applicant in regard to construction, it is of the utmost importance that the Construction Manager be hired “early-on” in the process.

2. TEAM FUNCTIONS AND RESPONSIBILITIES

a. General

The Architect, the Construction Manager, and the Owner each exercises leadership in its own sphere of operations. In accordance with this principle, the Architect will have prime responsibility for design of the project within the scope approved by the Owner. The Construction Manager’s role during the planning and design stages will be as an adviser on labor and material costs and construction methods and their costs. However, as a member of the team primarily responsible for the project costs, as well as design and construction scheduling, the Construction Manager will exercise overall control of costs and project schedule to keep the project within the budget approved by the Owner and to assure project completion by a specified date. The Owner is responsible for functional and financial planning either through in-house staff or consultants and is also responsible for decisions regarding the approval of final solutions and assuring that sufficient funds are available to complete the project within current budget estimates.

b. The Owner

It is crucial that the Owner assemble a planning and design team at the very inception of the planning process. In carrying out its responsibility, the Owner must be ready to make decisions quickly and with the confidence that the decision is correct with respect to the

solution of critical problems. To perform in a responsible manner, the Owner must have a skilled and experienced representative acting on the Owner's behalf. The Owner's representative must have and be given the capability and the authority to make decisions which bear on the functional program and the budget. Because the Architect and the Construction Manager are employed under separate contracts the Owner must function as the ultimate decision maker. Any Owner contemplating a Construction Management project should be prepared to be fully committed to providing the necessary staff to carry out its responsibilities.

c. Joint Architect and Construction Management Services

The Architect and the Construction Manager should be retained to perform a physical and functional evaluation of existing facilities. This is a study to determine the degree of physical obsolescence of existing facilities, identify major code violations and project future usability. Furthermore, the study should define functional problems which detract from operational efficiency; evaluate traffic flows and physical relationships; determine space sufficiency in terms of current requirements; study the need for modernization, alteration and expansion; and make recommendations as to alternative future uses of the structure as a whole. If the proposed project is to be a new structure, the Architect and the Construction Manager should be retained at this time to conduct a site selection and evaluation study. This study should include an evaluation of the utilities serving the site.

d. Architectural Services

Upon the Owner's review and acceptance of the various evaluation studies, the Architect in consultation with the financial advisor should perform workload projections for the activities which will take place in the new facility. The evaluation studies and the workload projections serve as a basis for the Architect's development of the master program; the single document which sets the project's basic character and scope.

e. Owner-Architect Agreement

The standard agreement for Architect services, on projects where a General Contractor is awarded the construction work under the lump sum bid method, consists of five basic elements:

- (1) Schematic Design
- (2) Design Development
- (3) Construction Documents
- (4) Bidding and Award of Construction Contract
- (5) Administration of Construction Contract.

The standard Owner-Architect agreement also includes the services of preparing statements of probable construction cost at the Schematic Design, Design Development and Construction Document stages.

f. Changes to the Standard Owner - Architect Agreement

Under the HUD Construction Management approach, the basic Architect services for the design are essentially unchanged except for separation of the construction documents into bid packages, the preparation of probable construction costs, and the bidding and award procedure. The Construction Manager provides all services required to provide cost estimates for all stages of the project. The receiving of bids and the execution of contract awards are also services of the Construction Manager. The Architect's participation in the bidding and award phase will be limited to reviewing the separate recommended contract awards and advising the Owner as to whether the bid responses are acceptable with respect to the total project requirements involving the Architect's responsibility. A standard form AIA B141 or as superseded would be considered appropriate, B141 CM is unacceptable. Because the Construction Manager assumes the tasks of cost estimating, this function should be excluded from the Owner/Architect services agreement. The Architect will (except for initial cost statement), however, be required to participate with the Owner and the Construction Manager in reviewing cost estimates for the purpose of staying within the limits of the established budget.

g. Schedule for Design

The Owner-Architect agreement should include a requirement that the Architect provide the required project documents in accordance with a design development schedule. The schedule should provide specific target dates for completion of the various design stages as well as dates for completion of the bid packages for bidding the work. The schedule should be developed by the Construction Manager in consultation with and concurred in by the Owner and the Architect with the intent to produce the completed project within a specified time frame.

h. Design Sequence

The HUD Construction Management process requires that the project design be developed on a phased schedule. Under this process, the normal sequence for producing the construction documents will change to accommodate the issuance of the bid packages. For example, the mechanical design is normally timed to occur after the development of the structural design. It may be necessary to start the mechanical design earlier and to design in conceptual terms for the purpose of obtaining early estimates and purchasing special long-lead equipment items in advance of construction. However, applicants should be informed that purchases made or contracts awarded by the Construction Manager before the GMP is accepted, may not be eligible costs for Federal participation. Separate contracts which are awarded by the Owner and which are not included in the GMP may be eligible if the Owner has sufficient capital without resorting to the insured mortgage.

Other variations in procedures may occur to accommodate the changed sequence in the production of the working drawings for the designated phases of the work. In any event, it is not a traditional design sequence in which the working drawings are completed for

the entire project prior to advertising for bids. The Architect/Engineer in consultation with the Construction Manager must determine which design elements can be produced concurrently rather than sequentially or which elements can be prepared in conceptual form in sufficient detail to allow the Construction Manager to provide a GMP at the earliest practical date.

i. Construction Management Services - Design Phase

(1) General

In order to be most effective the Construction Manager should be employed at the beginning of the design process; preferably at the same time as the Architect. Under no circumstances shall the Construction Manager be employed by the Architect nor shall the Construction Manager be affiliated with the architectural firm in any way. The design firm and the Construction Manager shall be completely independent entities with no organizational ties or corporate connection to each other, nor to the Owner.

(2) Project Cost Development

During the design phase of the project the Construction Manager provides consulting services in the formation of the project cost estimates and provides information on construction technology and market conditions to assist in keeping the project design within the prescribed budget. Particular attention should be given to projecting the cost of the work to the time of award of the bid package contracts. The Construction Manager should have in-house conceptual cost estimating capability for preparing accurate and detailed cost projections. It is extremely important that the cost projections be realistic and that the estimates be authenticated to the maximum extent possible. The Construction Manager should also develop additional detailed cost estimates concerning parts of the work that may require special attention or analysis.

In order to prepare realistic cost estimates from conceptual documents, the Construction Manager's cost estimating staff should have sufficient design capability and experience to relate to the Architect's design staff and effectively translate the design concept into a bonafide estimate. Estimating must be performed by persons who have been schooled in this discipline and who are thoroughly competent in this practice.

(3) Technical Consultation

The Construction Manager provides technical consultation to the Architect with regard to utilization of materials, products and construction techniques and assists the Architect in developing solutions to problems of cost and scheduling of work. The intent of utilizing such talents, particularly in the early phase of the design development, is to develop alternative design solutions for specific areas of the project. The Construction Manager can perform a vital role during the design process

by performing Life Cycle Cost Studies and Value Engineering Analyses. The effectiveness of the Construction Manager Firm in this process is heavily dependent upon the skills of the Construction Manager's staff. As in the cost estimating task, the persons assigned to perform Life Cycle and Value Engineering studies must have the engineering training and experience in the design of mechanical and electrical systems to effectively perform this function. A spirit of total cooperation between the Owner, the Architect and the Construction Manager and a commitment to the project goals must be established at the outset.

Technical consultation to the Architect or other professional disciplines shall not infringe upon the inherent responsibilities of those disciplines. For instance, the Construction Manager may make recommendations relating to the cost of a particular design or material selection; however, if such recommendations are accepted for incorporation into the project design, their application with regard to structural stability and life safety shall be the sole responsibility of the Architect. The Construction Manager shall not be assigned responsibilities which duplicate those assigned in the contract for architectural services.

(4) Field Services

The Construction Manager may be required to provide assistance in support of topographical surveys, preparation of maps, and performance of subsurface investigations such as test boring and test loadings. The Owner usually, however, chooses to award separate contracts for such services.

(5) Assembly of Bid Packages

Upon completion of drawings for a specific element of the work, the bidding documents should be assembled into bidding packages. In some cases it may be advisable to limit the number of packages to the major components of work such as general construction, heating, ventilation, air-conditioning, plumbing, electrical, and elevator work. On other projects, greater economies and quality control may be achieved through further subdividing those components into more specialized units of work.

Separate contracts may be desired on acoustical and electrical systems, structural frame work, foundation work, concrete, masonry, etc. The number of separate bid packages or contracts should be determined by the Construction Manager in concert with the Architect. Many elements of the work, such as foundation and superstructure, may be assembled into bid packages and bid prior to the completion of the final working drawings. Multiple separate bid packages may be required for similar trades for various phases of the work if the project requires a long period for completion. The individual bid packages should be complete contractual documents for that particular element of work. Bids should not be taken on schematic or diagrammatic drawings or outline specifications. When a bid package is advertised for bidding, it should be complete in every respect and ready for the trade contractor

to perform that specific part of the work without additional clarification of instructions.

(6) Preparation of the Bidders' List

One of the positive aspects a Construction Manager can add to a project is the preparation of the bidders list for the various bid packages. The CM should have an intimate knowledge of the available work force in the locality of the project and the experience to analyze the qualifications of local contracting firms. An analysis of local as well as national (and on occasion international) conditions can be of significant benefit in attracting qualified contractors to bid on the work.

(7) Invitation for Bids

The invitation-for-bid (IFB) documents should be assembled by the Construction Manager, and all actions such as answering inquiries from prospective bidders, issuance of addenda prepared by the Architect, and scheduling of bid openings should be the responsibility of the Construction Manager in coordination with the Owner and the Architect.

(8) Pre-Bid Conference

The Construction Manager should be responsible for arranging pre-bid conferences as appropriate for the purpose of informing prospective bidders of special conditions or requirements in the proposed work. The pre-bid conference may also serve as a means for obtaining comments from prospective bidders to clear up any ambiguities in the IFB documents. The requirements of Executive Order 11246, Equal Employment Opportunity (EEO), and Federal Labor Standards, *(See Part 1, Section 7)* should be emphasized at the pre-bid conference. The Owner's representative and the Architect should be represented at such conferences.

(9) Bid Receipt, Review, and Evaluation

The requirements of competitive bidding must be adhered to on all federally assisted construction projects. To fulfill this requirement on Construction Management Projects all trade contracts or subcontracts for work on the project shall meet the HUD requirements for competitive bidding. The requirements set forth in Chapter IV shall be followed literally and fully documented in the project data file. Failure to achieve competitive bids in the prescribed manner could jeopardize the Federal support for the financing of the project. Bid openings shall be conducted by the Construction Manager with a representative of the Owner and Architect present. Bids shall be opened publicly by the Construction Manager and the results of the opening tabulated. After evaluation and concurrence of the Architect, the Construction Manager shall recommend appropriate action to the Owner. The Owner shall send the Office of Architecture & Engineering (OAE) a copy of each bid tabulation, advise the OAE of the recommended award, and request concurrence in each contract award.

Upon concurrence by the OAE, the Owner may notify the Construction Manager to award the contracts.

(10) Scheduling the Project

The Construction Manager can have significant impact on the project in scheduling of work. Scheduling of work is closely coupled with development of bid packages and early cost estimating requirements. An activity network and time schedule for designing, bidding and accomplishing the work must be developed. Through the employment of Construction Management Services, the design and construction time schedule can be overlapped to accomplish the work in the least amount of time. This technique is effective in shortening the overall time required to complete a project. The schedule shall include a specific date for completing the entire project. The final completion date shall be incorporated in the Construction Manager's Part B GMP contract. Each bid package contract shall also contain individual completion dates.

j. Construction Management Services - Construction Phase

(1) General

During the construction phase, the Construction Manager coordinates the project activities to develop an orderly, controlled construction effort within the agreed time frame. In order to discharge these responsibilities, the CM must have a strong capability in engineering, budgeting, cost estimating, scheduling, purchasing, quality control, management, and labor relations. In addition, the firm should have a record of successful performance in furnishing specialized services during the project design phase and in the management of the construction of projects.

(2) General Condition Items and General Requirements

The Construction Manager's responsibilities shall include items listed under the General Conditions of the contract documents, and General Requirements for temporary facilities and services, which, because of their general nature, are related to the work as a whole rather than to specific items of work, and which are normally performed by a general contractor on a lump-sum, fixed-price contract. These functions may require that the Construction Manager furnish labor at the site. Only under specific circumstances may the Construction Manager perform work which is included in the separate bid packages.

(3) Accounting Records

Financial and cost accounting records shall be maintained for all construction costs applied to the project. The Construction Manager shall be responsible for maintaining such records. Each CM monthly requisition indicating a breakdown of the CM Fee, General Conditions and Bid Package line items shall clearly indicate columns which show the original approved GMP breakdown, the current GMP breakdown and

current line item overruns/underruns in cost. A monthly cost report is to be prepared by the CM giving a narrative status of the project as well as a listing of pending and approved subcontracts as well as GMP change orders. A statement shall be made indicating total savings or overruns to date. This report must be submitted to the Owner each month in a timely fashion.

(4) Management of the Work

The Construction Manager shall assign adequate personnel to the site of the work for managing and coordinating all work performed on the project. Services required at the site will vary according to the needs of the owner and the nature of the project. Some of the basic services the Construction Manager should be prepared to provide are coordination of the separate contracts; monitoring the individual phases of the work to determine which crafts are on schedule; adjusting the work to accommodate changed conditions and unanticipated interferences; and in participation with the Owner's representative and the Architect, inspecting workmanship, material, and equipment employed or installed on the project. The Construction Manager shall also arrange for the performance of field and laboratory tests; provide reports on progress of the work; submit all progress payment requests to the Owner; review all change proposals; and record all changed work that deviates from the contract documents for submitting to the Architect for preparation of as-built drawings. The listing of the above items is not exhaustive, but is representative of the types of services that the Construction Manager may be expected to perform.

(5) Comprehensive Safety Program

The Construction Manager shall review the safety programs developed by each of the separate contractors and prepare and submit to the Owner a recommended comprehensive safety program which complies with the requirements of the Occupational Safety and Health Act of 1970. (Performance of such services will not relieve the separate contractors of their respective responsibilities for the safety of persons and property or from compliance with all applicable statutes, rules, regulations, or orders). During construction, the Construction Manager shall monitor compliance by the separate contractors with their contractual safety requirements and shall report deficiencies.

k. Inspection Services

(1) Owner Compliance Inspection

Inspection of the work to determine compliance with contract specifications is the responsibility of the Owner. The Owner shall designate a representative, qualified in construction procedures, to be employed full-time for the purpose of inspecting the work and to act on its behalf with full authority to make decisions. The Owner's Representative may be a member of the Architect's staff or an employee of the Owner.

(2) Construction Manager Surveillance

The Construction Manager shall be required to accompany the Owner and the Architect on full project inspections at specified intervals of completion as well as pre-final and final inspections. The Construction Manager will maintain surveillance of the work at all time to insure that the trade contractors are performing satisfactorily with regards to the quality and schedule of the work.

(3) Final Closeout

The Construction Manager shall be required to prepare Final Closeout documents including a final audit of costs and assist in obtaining a final certification of occupancy. This documentation will include all necessary forms usually required by HUD.

3. PREPARING CONSTRUCTION MANAGEMENT AGREEMENTS

a. Sample Forms

The HUD sample forms included in this publication as **Exhibits** are for use in soliciting for Construction Management Services and awarding Construction Management Agreements with a GMP.

The HUD recommended sample form for executing Construction Management Agreements has been developed as a two-part document. *HUD will review draft agreements with clearly defined minor modifications and will accept them providing they meet minimum FHA-242 requirements. See Part II, Section 1b.*

PART A Construction Manager's Consultation Services

The Primary purpose of this document is to secure the services of a Construction Manager to (1) prepare cost estimates; (2) schedule the project efficiently for both the design development and construction phases; and (3) assist in achieving the most efficient use of materials and methods of construction.

PART B Construction Manager's Management Services

The primary purpose of this document is to secure the services of a Construction Manager to organize and direct the complete construction of the project within prescribed costs and time limitations. The PART B document shall not be executed until the Owner and the Construction Manager have agreed on a GMP and specific time for completion.

Using the two-part document for Construction Management Agreements allows the Owner to enter into a limited obligation with the Construction Manager during the design phase of a project with the option to award the construction phase (PART B) at an

appropriate time when construction cost estimates can be reasonably determined.

The two-part document provides for the orderly development of the construction cost estimates, bid packages and GMP through the design phase and allows construction to start prior to completion of the final construction documents for the entire project. HUD can, therefore, authorize the start of construction early with the assurance that sufficient financial resources will be available to the Owner to complete the project.

b. Phased Construction

Basically, phased construction involves starting of construction prior to completion of the entire project design. Certain phases of the work, such as foundations, superstructure, exterior walls, etc., can be separated into bid packages. Upon completion of a specific portion of the design, the work may be advertised and bid. Material and equipment purchases can be scheduled to take advantage of market conditions. This is specifically applicable to the purchase of long-lead items such as structural steel, electrical switchgear, transformers, and major items of heating and ventilating equipment. Time savings through the pre-purchasing of critical items can mean an earlier completion date and earlier occupancy of the facility. Each day of time saved can often be translated into dollars saved.

There are inherent risks to the Owner in constructing a project under accelerated or phased construction. Of great concern is the risk of starting certain parts of the work before the total cost of the project is known. Unless an assurance can be given that the project can be completed within the prescribed budget, the Owner may be placed in the untenable position of having started work with insufficient funds to complete the facility. The Owner can reduce this risk by obtaining a GMP from the Construction Manager for the entire work prior to the start of construction work at the site.

However, there are early commencement of work procedures which can accomplish these same ends. Consult with OAE for details and adaptability to a specific project.

c. Equal Employment Requirements for Construction Contracts

Federal Executive Order 11246, effective as of October 24, 1965, requires the inclusion of an equal employment clause in all Federally assisted construction contracts. (See Supplementary Conditions of the Contract for Construction, HUD-2554). In signing a contract or subcontract in excess of \$10,000.00, the contractor agrees that it “will not discriminate against any employee or applicant for employment because of race, color, religion, or national origin,” and that it “will take affirmative action to ensure that applicants are employed and that employees are treated fairly during employment,” without regard to these factors. In the event of the contractor’s noncompliance with the non-discrimination clauses of the contract, or with the rules and regulations of the Secretary of Labor, the contract may be canceled, terminated, or suspended in whole or in part and the contractor declared ineligible for further Government contracts.

The Office for Federal Contract Compliance (OFCC), U.S. Department of Labor, which has Federal responsibility for overseeing the implementation of Executive Order 11246 by the various Federal Departments and Agencies often prescribes written compliance requirements for construction contractors in designated geographical areas. These compliance requirements are issued under what is termed an “imposed plan” or “home-town” plan. In addition, it is the policy of OFCC that the approval of an “imposed plan” or the issuance of a “home-town” plan by OFCC may include a state or local government’s appending additional equal employment opportunity (EEO) requirements to Federally Assisted construction contracts and subcontracts where state and local funds are also involved in the construction. State or local government EEO requirements may not be inserted into HUD construction project bid specifications unless they have had the necessary approval of the Director, OFCC. If a project is subject to the provisions of an “imposed plan”, “home-town” plan or state or local EEO Requirements, the Applicant shall advise OAE prior to advertising for bids, or any special bid or pre-bid procedures and requirements to be met by both the Applicant and bidders.

Affirmative Action Plan commitments on Construction Management contracts shall be submitted by the Construction Manager and approved prior to execution of PART B of the contract and those commitments shall be included in all bid conditions of the separate subcontracts.

d. HUD Provisions for Labor Standards and Equal Employment Opportunity

Federal assistance requires that all construction contracts between the Owner and contractors, between the Construction Manager and contractor, subcontractor and lesser tiers of subcontractors, incorporate the provision of the U.S. Department of Housing & Urban Development Form HUD-2554, titled “Supplementary Conditions of the Contract for Construction.” In addition to the above the contract must make provisions for all laborers and mechanics to be paid not less than 1 ½ times their basic rate of pay for all hours worked in excess of eight hours in any workday or 40 hours in any work week.
See Part I, Section 2.f(2) Labor Standards.

e. Shared Savings

The sharing of savings with the Construction Manager on a percentage basis or any other basis is not permitted, under the HUD Construction Manager Contractual Agreement. The Construction Manager is compensated through a fee for services and the CM’s management obligations require that the CM generate the maximum savings possible for the Owner. Additional incentives for the Construction Manager such as shared savings shall not be allowed.

f. Retained Percentage

Provision may be included in each separate trade contract to make payment in full upon satisfactory completion of the work. Such a provision would eliminate the requirement of retaining a percentage of monies due the individual trade contracts for unreasonable

periods of time until final completion of work on the entire project.

In the HUD 242 program, however, 10% of the final completed and stored to date (amount on the AIA G702) including CM fee, general conditions, labor and all materials is withheld to 50% of project completion. *Upon written approval of HUD, the surety, the Architect, and the Owner, further retainage may not be required.* **Retainage will be released at the time of the final closing, upon request by the owner, surety, and Architect to HUD in writing.**

g. Liquidated Damages

The applicant shall include in the construction contract conditions a specified time for completion of the contract. The time shall be specified in calendar days.

Liquidated damages will be assessed in the Section 242 Program *at the rate of \$.09/\$1,000 of construction cost* and approved by HUD.

h. Termination

Termination clauses should be included in all construction management agreements to provide for releasing the Owner and the Construction Manager from their contractual obligations prior to start of construction on the project as well as terminating the construction management agreements during the construction phase on a basis which is equitable for both the Owner and the Construction Manager.

i. Performance and Payment Bonds

Upon notice that the Owner elects to proceed with PART B of the Construction Manager Agreement, the Construction Manager shall post *draft* performance and payment bonds each in the amount of 100% of the GMP.

Each trade contract awarded by the Construction Manager is a subcontract awarded on the basis of competitive bidding. These contracts are referred to as subcontracts to conform to insurance terminology utilized in standard insurance policies. For insurance purposes, the relationship of the Construction Manager to the trade contractor is the same as that of a prime contractor to a subcontractor.

Bonding of major trade contractors may be recommended by the Construction Manager. A specific statement with reference to bonding requirements shall be included in the information to bidders on each separately bid trade contract. **The Construction Manager shall maintain 100% performance and payment bonds on the project regardless of any bonding posted by the trade contractors. Surety bonds are required on HUD surety bond forms. *Finalized fully endorsed HUD Performance and Payment Bonds are required for the Initial Endorsement.***

j. Construction Manager's Liability Insurance

Construction Managers shall be required to purchase and maintain insurance, in amounts not less than that specified in the contract, as will protect them from claims set forth below which may arise out of, or result from the Construction Manager's operations under the contract, whether such operations are performed by the Construction Manager or by any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.

- Claims under workmen's compensation, disability benefit, and other similar employee benefit acts;
- Claims for damages because of bodily injury, occupational sickness or disease, or death of employee;
- Claims for damages because of bodily injury, sickness or disease, or death of any person other than employees;
- Claims for damages insured by usual personal injury liability coverage which are sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by the Construction Manager or (b) by any other person, and;
- Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

Evidence of Builder's Risk Insurance must be delivered at the Initial Endorsement.

k. Subcontractor's Insurance

The Construction Manager shall either (1) require each subcontractor to procure and to maintain during the life of the subcontract, a Comprehensive General Liability, Automotive Liability, and Property Damage Liability Insurance in the amounts specified in the contract, or (2) insure the activity of the subcontractors in the CM's own policy. The Construction Manager's and subcontractor's liability insurance shall include adequate protection against special hazards.

l. Certificates of Insurance

Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of any work. These certificates shall contain a provision that coverage afforded under the policies will be canceled until at least fifteen days' prior written notice has been given to the Owner.

m. Owner's Liability Insurance

The Owner shall be responsible for purchasing and maintaining its own liability insurance and, at its option, may purchase and maintain such insurance to provide

protection against claims which may arise from operations under the contract.

n. Property Insurance

Unless otherwise provided, the Owner shall purchase and maintain property insurance upon the entire work at the site to the full insurable value thereof. This insurance shall include the interests of the Owner, the Construction Manager, subcontractors, and sub-subcontractors in the work and shall insure against the perils of fire, extended coverage, vandalism and malicious mischief. In addition, if the property is located in a Special Flood Hazard Area (SFHA) designated on a Flood Insurance Rate Map issued by the Federal Emergency Management Agency (FEMA), the Owner shall purchase flood insurance on any building located in the SFHA.

o. Steam Boiler and Machinery Insurance

The Owner shall purchase and maintain such steam boiler and machinery insurance as may be required by the contract documents or by law. This insurance shall include the interests of the Owner, Construction Manager, subcontractors and sub-subcontractors in the work.

4. SELECTION OF A CONSTRUCTION MANAGER

a. STEP 1 - Establishment of a Construction Manager Source List

The Owner should establish a source list of firms that may be considered for providing Construction Management Services. The negotiation with a single firm should be avoided. Firms should be invited to submit their qualifications to the Owner in advance of solicitation for formal proposals. These firms should be requested to submit a statement of their qualifications for consideration in the same manner as requested for architectural and engineering firms. (See **Exhibit 1** for Construction Manager's Qualification Sample Form.)

The Owner should convene a selection panel to review the qualification statements submitted by interested firms. A form similar to that shown in **Exhibit 3** should be used to rate the interested firms. The top-rated firms should then be notified that they are being considered for the award of a Construction Management Agreement. The firms not so rated should be notified that they are no longer being considered for the award.

b. STEP 2 - Inviting Construction Managers to Submit Proposals

After reviewing the qualifications forms, the firms that are considered qualified should be invited to submit formal proposals for performing Construction Management services on the project. The preferred method of requesting proposals for Construction Management services is on the negotiated basis using the sample forms provided in **Exhibit 2**.

The invitation for proposals should include the following data:

- The names of the Owner, the Architect (if already selected), and other specific parties who may have a significant role in the administration of the project;
- The project title, location, the approximate number of gross square feet in the project, and a brief description of the project;
- The date for receiving proposals for the project as well as the address to which proposals should be delivered;
- The description of the role of the Construction Manager on the specific project, including a listing of the Construction Manager's tasks;
- A specific statement as to the requirements for the award of construction contracts on Federally Assisted construction projects;
- The manner in which the Owner intends to award the Construction Management Agreement, i.e., PART A, Design Consultation; and PART B, Construction Management Services During Construction.
- Under certain circumstances, an Owner may desire to terminate the services of a Construction Manager during the design phase, in which case only PART A of the Construction Management Agreement would be implemented. However, in most instances, the Construction Manager will be employed during both the design and construction phase of the project. PART B of the sample forms has been developed to provide that the Construction Manager state a separate fee for providing services during the construction phase, and further allows the Owner to reserve the decision regarding the award of PART B until a GMP can be established.

NOTE: THE SAMPLE FORMS INCLUDED AS **EXHIBIT 6** TO THIS PUBLICATION PROVIDE FOR THE OPTION OF RECEIVING COMPETITIVE BIDS FOR CONSTRUCTION MANAGER SERVICES. HOWEVER, IT IS NOT A FEDERAL REQUIREMENT UNDER THE HUD FEDERALLY ASSISTED CONSTRUCTION PROGRAMS THAT OWNERS RECEIVE FORMAL BIDS FOR CONSTRUCTION MANAGEMENT SERVICES.

c. STEP 3 - Briefing Meeting

A meeting should then be scheduled with the selected firms, briefing them in more detail as to the services required, and giving more specific details of the proposed project. A copy of the program of requirements and any supporting diagrammatic sketches should be made available to each firm.

An Information Package should also be prepared for each firm to be distributed at the briefing meeting. The Information Package should contain the following:

- (1) A formal invitation to submit a proposal for Construction Management Services (**Exhibit 2**);
- (2) Construction Manager's Proposal Form (see sample in **Exhibit 3**);
- (3) Any special instructions for information to be submitted with the proposal, i.e., a prepared plan by which the firm intends to manage the project;
- (4) A copy of the proposed Construction Management Agreement Form, PART A and PART B (see sample in **Exhibit 4**);
- (5) The closing date for receipt of proposals in the Owner's office or other designated place for receipt of proposals.

d. STEP 4 - Construction Managers' Proposals

The Construction Managers' proposals submitted in response to the Owner's invitation should be submitted on forms provided by the Owner. **Exhibit 3** may be used for the purpose of receiving such proposals.

The following information should be requested in the proposals:

- Date of the proposal;
- Identification of the Owner. The name and address of the facility for which the proposal is being submitted;
- The name of the firm submitting the proposal;
- The fee for services limited to design consultation specified under PART A of the Construction Manager's Agreement;
- The fee for services during construction of the project specified under PART B of the Construction Manager's Agreement;
- An agreement that the Construction Manager will guarantee the proposal for a period not to exceed 45 days from the designated date of receipt;
- The classification of individual or firm submitting the proposal, i.e., Individual, Partnership, Corporation or Joint Venture;
- Statement that the individual or firm agrees that within 10 days after receipt of written notice from the Owner of the acceptance of the proposal, PART A of the Construction Manager's Agreement will be executed and delivered to the Owner.

Where the Owner requires that formal bids be submitted on the project, the following additional items may be requested with the bids;

- Construction Manager's Bid Bond,
- Acknowledgment of all Addenda and Notices.

e. **STEP 5 - Final Selection of the Construction Manager**

Upon receipt of proposals from the invited firms, the Owner should reconvene the selection panel for the purpose of reviewing the proposals and making a recommendation for contract award. Individual interviews should be scheduled with each of the firms if it is considered by the panel to be helpful in making a final selection for contract award. It may be advisable to require that the process of selection include a presentation to the Owner.

The Construction Manager should be employed at an early development stage of a project in order to work with the Architect in developing the requirements that will govern the design of the project and the project cost.

The appropriate time for selection of the Construction Manager is simultaneously with the selection of the Project Architect or immediately afterwards. The employment of the Construction Manager after the completion of the project design is to be avoided because the CM's effect on the total project at that time will be minimized. Even though a Construction Manager may be able to reduce the cost of the project through capably preparing bid packages as well as managing the construction effort, substantial cost savings can only be achieved during the design phase.

Prior to execution of the Owner-Architect Agreement, there should be a careful comparison of the architectural services with that of the Construction Management Agreement to insure that there is no duplication of services. The standard forms AIA B141 (or more current agreements), AIA A201 and HUD-2554 may be modified if a Construction Management Agreement is anticipated. For instance if there are local requirements for Women Business Enterprise (WBE) and/or Minority Business Enterprise (MBE) this may be cause for modification, as one example. To avoid duplication, the agreements should be prepared simultaneously. OAE requires contractual provisions addressing Section 212 regulations as follows:

- (1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any work week in which he or she is employed on such work to work an excess of eight hours in any work day or 40 hours in such work week unless such laborer or mechanic receives compensation at a rate not less than one and one half times the basic rate

of pay for all hours work in excess of eight hours in any workday or forty hours in any work week.

- (2) **Violation; liability for unpaid wages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages.
- (3) **Withholding for unpaid wages.** HUD or its designee shall withhold, or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under this contract, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages as provided in the clause set forth in subparagraph (2) of this paragraph.
- (4) **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) or this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier contractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

5. SPECIAL CONSIDERATIONS FOR CM/GMP CONTRACTS

a. Construction Management Fees

The costs of Construction Management Services are specified in the Construction Management Agreement as fixed fees and are categorized under two types:

- Fees for services during the Design Phase (PART A)
- Fees for services during the Construction Phase (PART B)

Construction Manager's fees are defined under HUD procedures as those costs which an Owner agrees to pay to the Construction Manager for the performance of specific construction management services. The Construction Manager's fee includes the following items:

- (1) Salaries, fringe benefits and expenses to the Construction Manager's employees at the principal offices and branch offices to the extent they are identified and assigned to the project;
- (2) Salaries, fringe benefits and expenses of the Construction Manager's home office staff assigned to provide field supervision, management, and administrative support in connection with performance of the work at the project site;
- (3) Properly allocable indirect costs applicable to the efforts discussed in (1) and (2) above; and

(4) The Construction Manager's profit on the management of the project.

In the HUD sample form of the Construction Management Agreement, the fees are stated separately for PART A, Design Phase and PART B, Construction Phase. The fees are established and stated in fixed, lump-sum amounts. Fees shall not be established solely on the basis of a percentage of the construction costs. It is not in the Owner's interest to enter into an open-end agreement with the fee tied to the cost of the work. The fees shall be based on the scope and complexity of the project with a complete breakdown of the estimate of the manpower and other resources required to manage the project.

The Construction Manager's fee shall not be increased unless it can be demonstrated that an Owner-directed change has caused an increase in the resources that the Construction Manager must provide on the project. Specifically, the Construction Manager shall not receive an increase in fee for change orders written to the separate trade contractors unless it can be established that the final completion date in the Construction Manager's contract must be extended thereby requiring additional resources in the part of the Construction Manager. In those cases where no additional time is authorized, any resource required to perform the work within contract completion date will be provided by the Construction Manager at no change in the fee. On the other hand, if the Construction Manager is able to reduce the overall cost of the project, the Construction Management fee should not be reduced.

b. Guaranteed Maximum Price

The GMP, within the context of Federally Assisted construction, is defined as that condition under which the Owner is guaranteed that payment for completion of the work, as set forth in the Construction Management Agreement, will not exceed a stipulated sum.

The GMP should be furnished in two separate breakdowns:

- The normal breakdown of cost according to elements of the Construction such as concrete, masonry, structural steel, heating, ventilating and air-conditioning, electrical, etc.
- In addition, a breakdown showing the estimated cost of each bid package or line item as the Construction Manager proposes to award the separate trade contracts.

The two types of breakdown serve different purposes. The first provides cost information related to the usual costs of the construction elements. This breakdown will be prepared early in the schematic stages of the design development and updated at prescribed intervals until a GMP is established. The second is developed at the time the GMP is given and is used by the Owner to determine if bids exceed the estimated costs of the individual bid packages.

The HUD procedures require that PART B of the CM Contract, containing an acceptable GMP, be executed by the Owner and the Construction Manager prior to the award of contracts for the separate bid packages by the Construction Manager. Owner financed contract awards may be made under special conditions with the approval of the OAE. With proper scheduling of the design and early identification of the separate bid packages a GMP should be obtained at approximately 80% completion of the design documents. The first several bid packages should be ready for bidding immediately following the acceptance of the GMP.

The acceptance of the GMP is a critical activity in the CM/GMP contract process. All major decisions which may affect the scope or cost of the project should have been made prior to the GMP acceptance. Changes in the design after that point should be kept to an absolute minimum. The Owner, in consultation with the Architect/Engineer, must agree that major changes affecting the scope or costs will not be made in the design documents after acceptance of the GMP. If scope changes are made after that time the Construction Manager will be entitled to a change in the GMP. The GMP must be considered in the same manner as a lump-sum bid contract. When changes are made to design documents after award of a lump-sum bid contract they will, more than likely, cause an increase in the contract price.

When the GMP is offered by the Construction Manager, it is critical that all items of material and equipment be described with respect to quantity required and quality desired.

The GMP will normally be supplemented by a narrative description prepared by the Construction Manager to describe those elements of the project which have not been fully delineated in the contract drawings and specifications.

Of course, it must be understood that when a separate bid package is advertised for bidding, it should be complete with regard to design details and specifications. It is improper to expect trade contractors to bid on incomplete bid documents. Such practices leave the Owner vulnerable to change orders after the separately bid contracts are awarded.

The GMP must always be established with regard to a specific date and identified with an approved set of design drawings and specifications. After acceptance by the Owner, the GMP should be reviewed at specific intervals to determine if the scope of the project has changed. It is recommended that the Construction Manager be required to certify on a monthly basis (or other agreed upon interval) that the cost of the work based on drawings and specifications as of the latest date is within the GMP. The validation of the GMP on a monthly basis should continue until all work in the Construction Management Agreement has been bid, placed under contract, and completed.

The GMP is calculated by obtaining the sum of the following:

- (1) The estimated cost of all material and equipment to be purchased by the CM including early lead items;
- (2) The estimated cost of all labor, material and equipment to be incorporated into the work under subcontracts awarded by the CM;
- (3) The estimate of all costs for general conditions and general requirements work to be incurred by the CM;
- (4) The CM's fixed fee for services associated with the management of construction under PART B of the CM contract; and
- (5) An agreed upon contingency amount to cover the unanticipated cost of items not included in the estimated costs of (a) and (b) above. Contingency must not be shown in the GMP line item breakdown as a separate line item.

c. Reimbursable Costs

Reimbursable costs are those expenses incurred by the Construction Manager for general conditions and general requirements work, exclusive of indirect costs and profit (such as temporary heat when required, etc.). To be eligible for reimbursement, such items should be identified in the Construction Manager's contract and authorized in advance, in writing, by the Owner. An estimate of the cost of reimbursables shall be set forth as a separate item in the GMP included in PART B of the Construction Manager's contract. Reimbursable costs shall not include any items to be provided in the separate bid packages.

d. General Conditions

General construction items are those items which give rise to job overhead costs of construction and which are often required by general conditions of a construction contract, for example, a performance bond. General conditions should be limited to contractual - legal items as distinct from the administrative and technical items included in the General Requirements division of the specification.

e. General Requirements

General requirements are the provision of temporary facilities and services and other such requirements for work, which by their general nature, are related to the work as a whole rather than to specific items of work. General requirements shall be restricted to support type operations such as the establishment, maintenance, and operation of temporary field construction facilities; the provision of security forces for the protection of the work; and clean up and debris removal. Labor and material utilized in construction of the project and resulting in a permanent part of the total facilities shall be performed under separate

competitively bid contracts and shall not be included under General Conditions or General Requirements.

f. Final Cost of the Work

The ultimate cost of work to the Owner shall be calculated on the basis of the summation of all construction contracts awarded, the cost of materials purchased, and the cost of reimbursable items authorized by the Owner in executing the work. Any savings realized through the reduction in the cost of work below the stipulated GMP shall accrue to the Owner. The Construction Manager's fee is a separate stipulated sum and is not affected by changes in the cost of the work unless it involves a change in project scope. Cash allowances are prohibited in establishing the GMP.

The Construction Manager agrees that in the event the actual costs of items (a) through (e), above, exceed the GMP set forth in the Construction Manager's Agreement, the Construction Manager will be obligated to complete the work as specified in the construction contract documents at no additional cost to the Owner.

g. Shared Savings

The sharing of savings with the Construction Manager on a percentage basis or any other basis is not permitted. Under the HUD Owner-Construction Manager Contractual Agreement the Construction Manager is compensated through a fee for services. The CM's management obligations require that the CM generate the maximum savings possible for the Owner. Additional incentives for the Construction Manager such as shared savings shall not be allowed.

h. Retained Percentage

Payments to the Construction Manager will be made for services under PART B of this Agreement consistent with the Department of Housing and Urban Development's retainage requirement as defined below, on a monthly basis after receipt of properly executed application for payment. Retainage is mandatory in the Section 242 Program.

(a) Retainage requirement for the purpose of this Article is defined as the withholding of 10% on the entire request for payment by the Construction Manager, i.e.:

- The fee for services performed.
- The cost of the work performed.
- The reimbursement of general condition items.

Retainage will be held as described herein up to 50% of the contract amount on a cumulative basis. Thereafter, with the approval of the Architect, the Owner, the Mortgagee, the Department of Housing and Urban Development, and the Surety, no further retainage may be required on the balance.

(b) After completion and acceptance of all construction work and upon receipt of a release of claims pertaining to all work performed under the terms of this Agreement, the full amount including retainage due the Construction Manager shall be paid at the time of final endorsement of the mortgage.

6. BIDDING AND AWARD OF CONSTRUCTION CONTRACTS

a. Competitive Bidding

(1) The general function of the Construction Manager is to serve the Owner's interest with responsibility directly to the Owner. The CM's employment should be such to preclude any conflict of interest. In particular, the Construction Manager shall avoid bidding work in competition with bidding contractors. Therefore, neither the Construction Management firm nor any firm in which the principal stockholder or member of the Construction Management firm has a financial interest shall, during the term of the contract, make or cause to be made, any bid for construction work on the project referred to in the Construction Manager's Agreement.

(2) The bidding on trade subcontracts must be conducted so as to allow competition among qualified bidders in order to obtain a competitive price for the work. Therefore, competitive bidding by formal advertising is the preferred method of contracting under a Construction Management Agreement.

(a) Formal Advertising - For the Purpose of this policy, the term "formal advertising" entails:

- Preparation of the invitation for bids describing the building design and specification clearly, accurately and completely, but avoiding unnecessarily restrictive specifications or requirements which might unduly limit the number of bidders;
- Publicizing the invitation for bids through distribution to prospective bidders, publishing in newspapers and such other means as may be appropriate, in sufficient time to enable prospective bidders to prepare and submit bids before the time set for public opening of bids;
- Awarding the contract, after sealed bids are publicly opened, to that responsible bidder whose bid, conforming to the invitation for bids, contains the lowest price offered.

(b) Selective solicitation of bids - When selective solicitation of bids is permitted, the Construction Manager shall:

- Establish reasonable prequalification standards for bidders which shall be included in the "Information for Bidders" document. The Construction Manager

shall forward a list of recommended bidders to the Owner for approval. (See Appendix A - Exhibit 8 - Sample Prequalification statement for sub-contractors.)

- Solicit by written invitation and receive positive bid responses from three or more sub-contractors. Should less than three responsive bids be received, the Project shall be publicly advertised as described herein.
- Consider bids from any sub-contractor who requests permission to bid and who is determined by the Owner after consultation with the Construction Manager to meet bidding pre-qualification requirements set forth in the “Information for Bidders” document.

NOTE: IT IS A HUD REQUIREMENT THAT ALL CONTRACTS FOR CONSTRUCTION WORK ON PROJECTS FINANCED IN WHOLE OR IN PART BY FEDERAL FUNDS BE COMPETITIVELY BID AND THAT THE CONTRACT BE AWARDED TO THE LOWEST RESPONSIVE AND RESPONSIBLE BIDDER.

(c) Notwithstanding the foregoing, however, if the lowest responsive bid for any bid package exceeds the Construction Manager’s budget line item price for such package, or if less than three bids are received in response to advertisement of any bid package, with the Owner’s approval, one of the following procedures shall be followed:

- The CM shall negotiate with the lowest responsive bidder to reduce the price of the bid package to a cost which will not exceed the budget line item price; or
- The CM shall reject all bids and issue a revised invitation to bid prepared by the project Architect and approved by the Owner; or
- The CM shall award to the lowest responsive bidder for the price bid; or
- The CM shall agree to perform the work for the amount of the budget line item price or the CM’s actual cost, if less than the budget price.

Whichever of the foregoing procedures is followed, there shall be no reduction of the scope or quality of the project for any bid package in order to accomplish the project within the GMP.

b. Contract Awards

The Owner shall be responsible for approving awards of all contracts after evaluation and recommendation by the Construction Manager and concurrence of the OAE. The award of the individual trade contracts shall be made by the CM in accordance with the terms of the CM contract.

c. Reserve Fund

The reserve fund is an account which is established by the Construction Manager to record the excesses and under runs resulting from bidding on the separate bid packages

(line items) set forth in the GMP. The purpose of the fund is to provide a reserve of dollars to be used by the Construction Manager to cover the cost variances between the estimated cost of the separate line items and actual bids resulting from competitive bidding on the Project.

As each individual trade contract is awarded by the Construction Manager the amount of the contract shall be compared with the respective line item in the GMP. The difference between the amount of the awarded contract and the line item shall be recorded in an account identified as the “The Reserve Fund.” As successive contracts are awarded, additions to or subtractions from the Reserve Fund shall be made. The available balance in the funds may only be used by the Construction Manager to cover any differences between the GMP line items and actual amounts of contract awards. The fund shall be available to the Construction Manager until all major trade contracts are awarded. (A major trade contract is any bid package which is estimated to cost 5% or more of the GMP.) The amount remaining in the Reserve Fund after major trade contracts are awarded shall be released by the Construction Manager for use by the Owner.

7. RESPONSIBILITIES AND RELATIONSHIPS

a. Specific Divisions of Responsibilities

No contract document can insure that all the parties to that contract will perform responsibly or to their full capability. Many organizations have entered into contracts with every intention of completely fulfilling the requirements, only to find that conflicts occur between the contracting parties resulting in each taking an adversarial position against the other.

The success of a Construction Management Project depends largely upon the cooperative attitude that is developed, at the outset, between the Owner, Architect and the Construction Manager. This means frequent open discussions, airing disagreement so contrary opinions immediately, and fully understanding roles of each of the participants in the process. Major responsibilities shift from Architect to Construction Manager as the project moves through various stages of development. This is one of the major differences between a project using the Construction Management method and that of one using the General Contract procedure. There is no precise point in the process where responsibility shifts completely from one party to another.

The Owner will receive the greatest benefit from the Construction Management process by staying fully involved in all phases of the project development. Prime areas of responsibility on part of the Owner include:

- (1) Architect/Engineer and Construction Manager selection;
- (2) Budget and cost estimating activities;
- (3) Review and approval of various stages of design development;
- (4) Approval of Construction Manager subcontracts, progress payments and change orders; and

(5) Participation in interim and final inspections.

An Owner's Representative shall be retained to perform these functions. The Hospital Administrator or other busily engaged staff person should not be assigned the task as a collateral duty. The Owner's representative must be empowered to act for the Owner in all major decisions and must have the necessary technical skills to perform effectively in directing the Architect and Construction Manager in critical matters.

b. Construction Manager's Financial Responsibilities

A Construction Manager who is retained without the financial responsibility for completion of the project within a given price cannot effectively control the cost of the project. Any contractual arrangement without financial responsibility leaves the Owner vulnerable to major cost overruns and delayed completion of the work. Delayed completion can mean a sizeable loss in revenue and increased costs in construction financing. A Construction Manager who has posted performance and payment bonds can be held responsible for completion of the work on a project within a specified limit of cost and a stated number of calendar days.

The process, however, is not without shortcomings. The perfect construction contracting procedure has not yet been developed and more than likely never will. In spite of its imperfections the CM/GMP process is an effective means of delivering a project on schedule, within an OWNER'S specific budget, and still retains all of the Federal requirements for competitive bidding and contracting.

c. Caveats

When purchasing any item or service the rule of "Buyer beware" is applicable. The purchasing of construction management services is no exception. There are specific signals which an Owner should look for when negotiating for construction management services.

The first and of major importance is the Construction Manager's organization. Find out what kind of people they retain on their regular payroll. Does the Construction Manager have an experienced engineering staff that can perform effectively during the design process? Can their people prepare conceptual cost estimates from schematic and early conceptual documents, or will you have to wait for final design documents before the costs can be determined? Unfortunately, many firms profess to being construction managers but do not qualify in those specific areas.

The construction management firm should be able to demonstrate successful experience in working with Owners and Architects during the design process and must be oriented toward management of the project and not performing the trade work at the site. The profit of the qualified Construction Manager comes from the fee for managing the work. Therefore, the Construction Manager which you seek for your project should be able to demonstrate that its major interests lie in the management area; that is, in the ability to

manage the scheduling of the work and the cost of the work.

Any owner contemplating the use of construction management services on a project should be prepared to interview several firms in order to obtain the most qualified organization to construct a specific facility.

d. Architect and Construction Manager Relationships

An architectural firm involved in the Construction Management process will experience a different relationship with a Construction Manager than with a General Contractor on a conventional Design-Bid-Build project. The major difference in the relationship is the input the prospective builder of the project can offer during the early design phase. The Architect must be prepared to receive the data being generated by the Construction Manager, and the Construction Manager must be attuned to the process and be prepared to provide the data in a timely manner. Continuous discussion and open exchange of information is vital to the success of the project. The Architect and Construction Manager must have equal access to the Owner, and the Owner must be ready to act when called upon to make critical decisions. Open and free discussions are the key. Certainly contrasting opinions will develop, but these should be encouraged. Out of such conflicts come the most valuable contributions of the "Team" to the project.

The Construction Manager must not stand back and await instructions of the Owner or the Architect. The Owner should expect the Construction Manager to move boldly into the design process and should also expect complete access to all information generated during the process. The experienced Construction Management firm will know the action required of it and will be ready to contribute its expertise at the proper times. As a matter of fact, the design schedule prepared by the Construction Manager should establish the timing of the cost estimates, the life cycle costs and value engineering studies, so that the Owner will be aware of services to be provided and will be advised of the responses or approvals required.

e. Separate Cost Consultant

On very large projects, say in the \$100 million range and above, it would be advisable for the Owner to retain a separate cost consultant to provide cost data during the design phase. This action would not relieve the Construction Manager of preparing the cost estimates necessary in development of the GMP. It would provide the Owner with another opinion as to the magnitude of the construction costs. It should have a beneficial balancing effect upon the single source of cost data generated by the Construction Manager. It would also give the Architect a more valid position to defend the specifics of the design if the Construction Manager's cost estimate were excessive or exceptionally conservative.

The prime factor to be considered is the need for the Owner to know, with reasonable accuracy, what the cost of the project will be in order to make the most effective use of funds available. Conservative estimates by the Construction Manager can cause large

under runs in the project budget and may result in severe sacrifices by the Owner in reducing the scope of the work only to find out later than those sacrifices were unnecessary. When the estimates of the cost consultant and the Construction Manager are reasonably close, it is a good assurance that the total scope of the project can be provided within the available funds and that the GMP does not contain excessive amounts of contingencies.

Once a GMP is given and it meets budgetary constraints, the separate cost consultant would not necessarily be required since the cost of the consultant alone adds to the overall cost of the project. Experience has shown that there are reasonable checks and balances for cost control among the Owner's accountants, the Architect, the Construction Manager, financial consultants and OAE from the time the GMP is given until the end of the job.

ADDENDUM

DEFINITIONS APPLICABLE TO CONSTRUCTION MANAGEMENT, GUARANTEED MAXIMUM PRICE (CM/GMP) CONTRACTS FOR FEDERALLY ASSISTED PROJECTS

“**Actual Cost**” means an amount determined on the basis of cost incurred as distinguished from forecast cost.

“**Agent**” means one who acts for or in the place of another. Under an agency relationship the principal controls or directs the methods and acts of the agent or, when such control is not exercised directly, the agent is empowered to act for the principal as if it were. Under a CM/GMP contract the agent is the Owner's project representative; it is never the Construction Manager.

“**Arbitration**” is a procedure whereby contracting parties may submit a dispute to an impartial board of experts for decision as an alternative to a suit in a court of law.

“**Automobile and Truck Liability Insurance**” covers the contractor from loss due to collision, fire, theft, and the like and loss due to bodily injury and property damage to other persons.

“**Bid Bond**” is a guarantee from an acceptable surety of the good faith of the bidder that if awarded the contract within the time stipulated the bidder will enter into a contract.

“**Bid Package**” means a separate element of the construction work which can be identified for subcontracting purposes and bid competitively by specialty trade contractors. Each bid package may be a separate line item or a combination of line items.

“**Bid Package**” means a separate element of the construction work which can be identified for subcontracting purposes and bid competitively by specialty trade contractors. Each bid package is a separate line item in the breakdown of the Guaranteed Maximum Price.

“**Builder's Risk Insurance**” provides insurance protection for the increasing value of the property as construction progresses.

“**Change in Scope**” means an Owner approved project revision which causes a major change in the project narrative description resulting in a revision of (1) the project budget or (2) the duration of the design and construction activity, or a combination of (1) and (2) above. A change in scope shall not constitute the basis for negotiations for a revision in the Construction Manager's fee unless it results in a change in the Scope of Services set forth in the construction management contract.

“**Change Order**” means a written order from the Owner to the Construction Manager and/or written order from the Construction Manager to a subcontractor authorizing a change in the work with an equitable adjustment in the subcontract sum or completion time or both. A change order shall not constitute a basis for a revision in the Construction Management fee unless it results in a change in the scope of services set forth in the Construction Management contract.

“Comprehensive Policy” means insurance protection that would cover the Contractor's direct liability and contingent liability in a single blanket type policy.

“Completed Operations Insurance” provides coverage for claims arising out of or resulting from the contractors operations when injury or damage occurs after the work is completed, usually extending from one to three years from date of completion.

“Conceptual Estimate” means an estimate of construction costs made from the designer's preliminary sketches and outline specification. Conceptual estimating methods should be used when preparing a Guaranteed Maximum Price from incomplete design drawings and specifications.

“Contractor” means the prime contractor under contract to the Owner for construction of the project. The Construction Manager is the prime contractor when engaged under a CM/GMP contract.

“Contractors Liability Insurance” provides protection to the contractor from claims which may arise out of or result from the contractors operations under the contract whether such operations be by the contractor or by any subcontractor completion.

“Construction Manager (CM)” means an organization that is under contract with an Owner to perform selected construction management services. The CM is an independent consultant and manager and as such does not function as an agent of the Owner.

“Construction Management Contract” means a contract between an Owner and an independent organization for the performance of selected construction management services. The contract is awarded in two parts.

Part A (Design Phase) - The CM provides Life Cycle, Value Engineering and construction cost consultation as well as information on construction technology and market conditions to assist in keeping the project design within the Owner's prescribed time schedule and budget. The CM develops and offers for acceptance, by the Owner, a Guaranteed Maximum Price for the construction of the project.

Part B (Construction Phase) -Upon acceptance of the Guaranteed Maximum Price by the Owner the CM proceeds to implement the construction of the project in an orderly, controlled manner within an agreed upon period of time and price.

“Construction Manager's Fee” means a fixed dollar amount that the Owner agrees to pay the Construction Manager for the performance of selected construction management services during the design and construction phase of a project. A change in the Scope of Services as set forth in the Construction Management Contract may constitute a basis for negotiations for revision in the Construction Manager's fee. The CM's fee includes the following items:

- (1) Salaries, fringe benefits and expenses of the CM's employees at the principal offices and branch offices to the extent they are identified and assigned to the project.

- (2) Consultants retained by the CM to perform specialized services;
- (3) Properly allocable indirect costs applicable to the efforts discussed in (1) and (2) of this definition: and
- (4) The CM's profit on the management of the project.

“Construction Management Firm” means an organization or joint venture, experienced, multi-disciplined, and qualified to perform selected construction management services in the planning, design, and construction of a facility.

“Construction Management Services” means consultation and management services employed by an Owner during the planning, design and construction phases of a facility within a total system which treats those services as integrated tasks. The purpose in employing such services is to assist an Owner in obtaining a functional facility within a prescribed budget with special emphasis on maintaining quality construction while minimizing the time required for completion of the project.

“Construction Management Team” means the group responsible for the planning, design, and construction of a project. Its members include, but are not limited to, the Owner, the Construction Manager and the Architect.

“Direct Costs” means any cost identified specifically with the contract; i.e.,

- a. Direct labor in performance of general requirements items.
- b. Fringe benefits on direct labor.
- c. Material purchases.
- d. Equipment purchases.
- e. Shipping and Mailing costs.
- f. Temporary heat when required.

“Estimated Cost” means an amount which is forecast for a future result based upon information available at the time.

“Extended Form of Fire Insurance” includes liability for loss or damage due to demolition, required by law or safety ordinances, of a portion of a building remaining after a fire. Such hazards as tornadoes, cyclones, hailstorms, lightning, riots, strikes, water leakage, operation and maintenance of machinery and explosions may be included.

“Final Cost” means the total cost to the Owner for work performed under the Construction phase (Part B) of a CM contract. The final costs under a CM contract shall be the lesser of

- a. The actual cost of the items included in the Guaranteed Maximum Price; or
- b. The Guaranteed Maximum Price.

“Fire Insurance” for construction contract purposes provides coverage for fire damage to

buildings, additions, extension, and appurtenances, such as mechanical equipment, side walks, fences, and other permanent equipment.

“General Condition Items” a popular but loose term to describe those items which give rise to job overhead costs of construction and which are often required by general conditions of a construction contract; for example, a performance bond. General conditions should be limited to contractual-legal items as distinct from the administrative and technical items included in the "General Requirements" division of the specifications.

“General Requirements” means temporary facilities and services and other such requirements for work provided by a contractor, which, because of their general nature, are related to the work as a whole rather than to specific items of work and can be performed more economically by the Construction Manager than by each individual trade contractor.

“Guaranteed Maximum Price (or GMP)” means that condition under which the Owner is guaranteed that payment for the completion of the work, as set forth in the construction management contract, will not exceed a stipulated sum. The Guaranteed Maximum Price is the sum of the following:

- a. The estimated cost of all material and equipment to be purchased by the CM including early lead items;
- b. The estimated cost of all labor, material and equipment to be incorporated into the work under subcontracts awarded by the CM;
- c. The estimate of all costs for general conditions and general requirements work to be incurred by the CM;
- d. The CM's fixed fee for services associated with the management of construction under Part B of the CM contract.

“Independent Contractor” means a person or organization representing the principal (Owner) for the accomplishment of certain acts or work whereby the principal specifies the results to be obtained, but exercises no control or direction as to the methods by which the results are accomplished. Under a CM/GMP contract the construction manager is an independent contractor.

“Indirect Costs” means any cost not directly identified with the contract, i.e.,

- a. General and Administrative expenses.
- b. Home office expenses.
- c. Salaries of home office employees.
- d. Salaries of company principals and officials.
- e. Travel costs.

“Liquidated Damages” means money payable to an Owner by the Construction Manager for

damages suffered through late completion of construction directly resulting from the acts of the Construction Manager; the specific amount having been agreed to in advance and specified as a daily assessment in dollars per calendar days. Such assessment shall be reasonable and adequate to cover appropriate fair damage costs, to the Owner, which will result from delay in occupying the project.

“Major Subcontract” means any bid package which is estimated to cost 5% or more of the Guaranteed Maximum Price.

“Management Control System” (MCS) means a system, which when fully implemented, will generate reports necessary for the effective management and control of the overall design and construction program. The MCS incorporates three major subsystems; Planning and Progress Monitoring Subsystem; Budget Control and Accounting Subsystem; and Documentation and Historical Subsystem.

“Open Competitive Bidding” means the use of formal advertising which involves the preparation of an invitation to bid, publicly advertising the invitation and awarding a contract, after sealed bids are publicly opened at a specified time and location to that responsible and responsive bidder whose bid contains the lowest price offered.

“Owner's Project Representative” means an employee of the Owner or a person under contract to the Owner with authority to act on behalf of the Owner on all matters pertaining to the design and construction of the project. This person is not an employee of the Architect or the CM.

“Owners Protective Liability Insurance” is a form of public liability insurance which covers the Owner's contingent liability for damages due to bodily injury, including death resulting there from, and property damage caused by accidents arising from construction operations performed for the Owner by independent contractors and subcontractors. It also protects the interest of the Owner against liability which may be imposed by law because of the Owner's supervisory acts or omission thereof in connection with the work performed by the general contractor and subcontractor

“Payment Bond” is a guarantee from an acceptable surety that the contractor's bills for labor and material will be paid up to the amount of the bond.

“Performance Bond” is a guarantee from an acceptable surety that the contractor will perform all the terms of the contract and in default thereof to protect the Owner against loss up to the bond penalty.

“Principal” means the person or organization for who an agent acts. Under a CM/GMP contract the principal is the Owner.

“Project Manager” means the principal employee of the Construction Management firm with prime responsibility for coordination of management services during the design and construction phases of the project.

“Project Superintendent” means an employee of the Construction Management firm with full-time responsibility for supervision of all on-site employees of the CM and coordination of all subcontractors activities.

“Property Insurance” means insurance upon the entire work at the project site, usually in an amount to the full insurable value thereof. This insurance includes the interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Work and insures against perils of fire and extended coverage and should include "all risk" insurance for physical loss or damage including theft, vandalism, and malicious mischief.

“Reimbursable Costs” means expenses incurred by the CM for general conditions and general requirements work, exclusive of indirect costs and profit. To be eligible for reimbursement, such costs should be identified in the CM contract and authorized in advance, in writing by the Owner.

“Reserve Fund” - An account which is established by the Construction Manager to record the excesses and under runs resulting from bidding on the separate bid packages (line items) set forth in the Guaranteed Maximum Price.

“Scope of Services” means a description of CM services set forth in Parts A and B of the CM contract. The CM compensation (CM fee) for such services is based upon a narrative description of the project, the project construction budget and the specified duration of the design and construction activity.

“Scope of Work” means the work as set forth in the plans and specifications upon which the construction Manager establishes the Guaranteed Maximum Price.

“Selective Bidding” means selection of and inviting three more competent bidders to submit bids and awarding a contract after bids are publicly opened, to that responsible and responsive bidder whose bid contains the lowest price offered.

“Separate Contractor” means a contractor engaged directly by the Owner to perform project related work that is not included in the CM/GMP contract.

“Subcontractor” means a trade contractor under contract to the Construction Manager for performance of a specific bid package.

“Umbrella Insurance” underlying insurance policies with moderate limits may be supplemented with an "excess" or "umbrella" liability policy with additional limits of protection.

“Workman's Compensation Insurance” protects the contractor from losses resulting from personal injury or death of employees, as imposed by the Workmen's Compensation Act and also losses due to legal liability for such losses as imposed by the Employer's Liability Act.

SAMPLE FORMS FOR USE ON CONSTRUCTION MANAGEMENT CONTRACTS

(see Exhibits 1 through 8 starting on the next page)

EXHIBIT 1
CONSTRUCTION MANAGER'S QUALIFICATION STATEMENT

*(Required as a qualification statement in advance of submitting
proposal for award of Construction Management Contracts.)*

The Undersigned certifies under oath the truth and correctness of all statements and of all answers to questions made hereinafter.

SUBMITTED TO:

Corporation
Partnership
Individual Venture
Joint Venture
Other

SUBMITTED BY:

NAME:

ADDRESS:

PRINCIPAL OFFICE:

1.0 The primary purpose and intent of this statement is to qualify the above named organization as a construction manager to provide design consultation services on the project to assure that the project costs will remain within established budget limitations; that the project will be scheduled efficiently for both design development and construction phases to be ready for occupancy at the earliest possible date; and that the design of the project will be such that the most efficient use of materials and methods will be employed to provide quality construction at the least cost.

2.0 How many years has your organization been in business under its present business name?

3.0 If a corporation answer the following:

3.1 Date of incorporation:

3.2 State of incorporation:

3.3 President's name:

3.4 Vice President's name:

3.5 Secretary's or Clerk's name:

3.6 Treasurer's name:

4.0 If individual or partnership, answer the following:

4.1 Date of organization:

4.2 Name and address of all partners. (State whether general or limited partnership.):

5.0 If other than corporation or partnership, describe organization and name principals:

6.0 List name of project, owner, architect estimated cost, percent complete and scheduled completion of the projects your organization is managing or acting as prime contractor, in excess of \$ on this date.

7.0 Construction experience in the past five years in which your firm acted as prime contractor or construction manager on projects in excess of \$ _____ .

Number of Projects						
None	1	2	3	4	5	More

7.1 Educational

7.2 Commercial & Office

7.3 Industrial

7.4 Medical

7.5 Other

7.6 Attach detailed list of above projects indicating whether your organization was prime contractor or construction manager. Give location and description of project including construction cost and date of completion. Also include name, address, and telephone numbers of owner-client for each project.

8.0 Construction cost estimating and cost control capabilities: _____

IN-HOUSE CAPABILITY _____ YES PARTIALLY CONSULTANT ONLY

8.1 During Design

8.2 During Construction

8.3 If partially performed in-house, what percentage of time do you use consultants during design _____; during construction _____.

9.0 Experience of staff personnel in the following areas:

10.0 Number of staff personnel normally assigned to a project:

10.1 Design

10.2 Construction

11.0 List states and categories in which your organization is legally qualified to do business:

12.0 Professional References:

13.0 Name of Bonding Company and name and address of Agent:

14.0 Attach statement of financial condition, including latest regular dated financial statement or balance sheet which must contain the following items:

14.1 Current Assets: Cash, Joint Venture Accounts, Accounts Receivable, Notes Receivable, Accrued Interest on Notes, Deposits, Materials and Prepaid Expenses, Net Fixed Assets and Other Assets.

14.2 Current Liabilities: Accounts Payable, Notes Payable, Accrued Interest on Notes, Provision for Income Taxes, Advances Received from Owners, Accrued Salaries, Accrued Payroll Taxes, Other Liabilities, and Capital Stock (Authorized and Outstanding Shares Par Values, and Earned Surplus).

14.3 Date of statement or balance sheet:

14.4 Name of firm preparing statement:

15.0 Dated at _____

This day of _____, 20__.

Name of Organization: _____

By: _____

Title: _____

EXHIBIT 2
INVITATION TO SUBMIT PROPOSALS FOR CONSTRUCTION MANAGEMENT SERVICES

PROJECT OWNER _____

PROJECT OWNER'S AGENT _____

ARCHITECT _____

FEDERAL AGENCY PROVIDING FINANCIAL ASSISTANCE _____

ROLE _____

Proposals are invited for the role of Construction Manager (CM) for "the project" consisting of the construction of:

_____ (Project Title)

_____ (City and State)

to contain approximately _____ gross square feet and _____ levels, and to include

(brief Project Description)

PROGRAM OF REQUIREMENTS

The Program of Requirements for this project is available in the office of the Owner and shall constitute the basis for the project briefly described above. The Program of Requirements is in narrative form and is supported by diagrammatic sketches to the extent necessary to describe the physical characteristics of the project. The Program of Requirements will be appended to the Construction Manager's Form of Agreement as a part of the formal contract.

RECEIPT OF PROPOSALS

Proposals received will be evaluated by the Owner and scored on a weighted basis in each of the categories contained in the Construction Manager's Qualification Statement. Firms whose proposals and qualifications are determined to be most advantageous to the Owner will be requested to submit price proposals.

Proposals will be received at the following address:

PROPOSALS FOR ROLE OF CONSTRUCTION MANAGER

Only proposals from firms invited on the basis of pre-qualification information submitted prior to _____ (Date) will be considered.

The Construction Manager System will be used in which the CM performs professional management services, but does not perform with the CM's own resources any of the construction work with the exception of General Conditions. The CM shall operate as a member of an Owner-Architect-CM team which will be involved with production of the project. It is the intent of the Owner to provide for early consolidation of the team of Owner, Architect and CM to allow acceleration of project development, early commencement of certain elements of construction, reduction in construction costs, and final, early occupancy.

The CM is essentially an organization which has proven ability to provide technical consultation during the design stage of the project and to act as manager of construction in organizing and directing construction activities on a project of the scope and complexity similar to that identified above. He shall be responsible for cost estimates and budget control, review of design during the entire process with a view towards value engineering, life-cycle costing, construction coordination and scheduling, and direction of all construction activities. The function of the CM, coupled with the above, shall be the assumption of administrative duties in conjunction with the Owner and Architect towards procurement, bidding and contracting as required for construction of the project.

CONSTRUCTION MANAGER'S TASKS

CM tasks will include but are not limited to the following:

- 1) Consultation related to building systems, sequences of events, materials and components.
- 2) Implementation of a management control system (MCS) for use in meeting the objectives of the project in a timely, economical, and acceptable manner.
- 3) Preparation of cost estimates and cost comparisons, including long-term cost effects of various alternatives.
- 4) Inspection of the work from start of construction until completion.
- 5) Management and general direction of the entire construction work performed by contractors whose separate bids will be offered to the Owner.

REQUIREMENTS FOR FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

Those firms requested to submit proposals are cautioned that participating Federal funds require that all contracts between the Owner and contractors, and between the contractors and lesser tiers of subcontractors, for work on this project shall require compliance of all parties thereto with provisions of HUD 2554-Supplementary Conditions to the Contract for Construction.

AWARD OF CONTRACT

The Owner intends to enter into Part A of the Construction Manager's Agreement with the Firm or Individual submitting the proposal which, in the judgment of the Owner, is most advantageous to the Owner, price and other factors considered. Part A of the Construction Manager's Agreement will be limited to services of design consultation (including the implementation of a Management Control System) until the Owner formally accepts the Guaranteed Maximum Price offered by the Construction Management firm. The award of Part A binds the Construction Manager to perform Part B of the Construction Manager's Agreement upon the acceptance of the Guaranteed Maximum Price.

EXHIBIT 3
CONSTRUCTION MANAGER'S PROPOSAL

DATE: _____

_____ (Owner)

_____ (Name of Facility)

_____ (Address)

_____ (City, State, Zip)

Gentlemen:

The UNDERSIGNED, doing business under the name of _____ having examined the invitation for proposal documents prepared by _____ (Architect) which documents consist of Parts A & B of the Construction Manager's Agreement and the Program of Requirements and having examined the invitation for proposals, hereby agrees to furnish all services and other items required to perform and complete all the work described by these contract documents according to the conditions prescribed therein for the following considerations:

1. For services specified under Part A, Article 2, of the Construction Manager's Agreement, the stipulated sum of: _____ Dollars (S)
2. For services during construction, as defined under Part B, Article 3, "Construction Manager's Tasks", the stipulated sum of: _____ Dollars (S)

PROJECT CONSTRUCTION SCHEDULE

A maximum construction period of ___ months is envisaged. Every effort shall be made to reduce this figure by optimum scheduling of work sequences.

GUARANTEE: The undersigned guarantees this proposal for a period of 60 days from date designated for receipt of proposals and agrees not to withdraw this proposal during this period.

CLASSIFICATION OF INDIVIDUALS OR FIRMS SUBMITTING PROPOSALS (Type or print answers to classification below which defines the Bidder's type of organization; furnish all information required for appropriate classification):

This Proposal is Submitted By:

AN INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME

(Firm Name)

A PARTNERSHIP

(Partnership Name)

Names of all Partners:

() A CORPORATION

(Full Name of Corporation)

Incorporated in State of

() A JOINT VENTURE

(Full Name of Joint Venture)

Joint Venture is incorporated in State of

Workmen Compensation Insurance is placed with:

Public Liability and Property Damage Liability Insurance is placed with:

EXECUTION OF CONTRACT: If written notice of acceptance of this proposal is mailed, certified, or delivered to the undersigned within the time stated in the Invitation for Proposals for Construction Manager, or any time thereafter before this proposal is withdrawn, the Undersigned shall, within 10 calendar days after the date of receipt of such written notice, deliver Part A of the Construction Manager's Agreement as issued with the invitation for proposals document.

SIGNATURE (Affix Corporate Seal if incorporated):

Signed _____

Title _____

Signed _____

Title _____

Name of Firm, Partnership, or Corporation:

Business Address

Mailing address or number to which notice of acceptance may be mailed or faxed:

EXHIBIT 4
CONSTRUCTION MANAGER AGREEMENT

PART A - CONSTRUCTION MANAGER'S CONSULTATION SERVICES

THIS AGREEMENT, entered into this _____ day, 20____, is by and between _____,
hereinafter called the OWNER, and _____,

CONSTRUCTION MANAGER:

WHEREAS the Owner intends to erect

Herein after called the PROJECT, according to construction contract documents to be prepared by _____, hereinafter called the ARCHITECT:

THEREFORE, the Owner and the Construction Manager agree as follows:

ARTICLE 1 PURPOSE AND INTENT

The primary purpose and intent of Part A of this Agreement is to secure the services of a Construction Manager to provide design consultation on the project; to monitor project costs and endeavor to keep costs within established limitations; to schedule the project efficiently for both design development and construction phases so that the project will be ready for occupancy at the earliest possible date; and to review the design of the project with the intent that the most efficient use of materials and methods will be employed to provide quality construction at the least cost.

ARTICLE 2 CONSTRUCTION MANAGER'S TASKS

2.1 Review of Plans and Specifications

- 2.1.1 Review of all plans and specifications during the design development and advise on site, foundations, systems and materials, construction feasibility, availability of labor and materials, time requirements for procurement, installation and construction, relative costs, and provide recommendations for economies as appropriate.
- 2.1.2 Technical consultation to the Architect or other professional disciplines shall not infringe upon the design responsibility of those disciplines. The Construction Manager may make recommendations relating to the cost of a particular design or material selection; however, if such recommendations are accepted for incorporation into the project design, their application with regard to structural stability and life safety shall be the responsibility of the Architect. The Construction Manager shall not be assigned responsibilities which duplicate those assigned in the contract for architectural services.

2.2 Technical Proposals

Participate with the Architect, as a consultant, in the preparation of performance specifications and requests for technical proposals for the procurement and installation of systems components of the construction and for procurement of long lead time equipment and materials. The Construction Manager shall issue requests for technical proposals to qualified sources and shall receive proposals and assist in their evaluation; conduct formally advertised procurement by

assembling the contractual documents and issuing invitations for bids; and be prepared to proceed with the several contracts immediately upon notification to proceed with PART B of this agreement.

2.3 Cost Consultation

The Construction Manager shall provide a continuous cost consultation service for the duration of this agreement and shall prepare, and be responsible for, all procurement and construction cost estimates. The Construction Manager shall prepare preliminary estimates as requested in support of the design process and shall prepare final cost estimates for all early procurement of equipment and materials; for all systems components contracts; and for all out of system construction work. The Construction Manager shall notify the Owner whenever the estimated construction cost is tending to exceed the budget or whenever the design is such as to preclude meeting the completion schedule.

2.4 Long Lead Time Procurement

Identify, recommend for purchase, and expedite the procurement of equipment, materials and supplies which require long lead time for procurement or manufacture.

2.5 Construction Contract Documents

Make recommendations to the Owner regarding the division of work into separate contracts to effect economy and permit phasing of procurement and construction. The Construction Manager shall consider such factors as type and scope of work, time of performance, availability of labor and materials, community relations, factory vs. on-site production costs, shipping costs and size limitations, building code restrictions, and other limiting factors.

2.6 Interfacing Separate Contracts

Review plans, specifications and schedules for the project to minimize conflict and overlap of jurisdiction between separate contractors.

2.7 Job Site Facilities

Review the specifications to ensure that they contain provision for all temporary facilities necessary to enable contractors to perform their work, and provisions for all of the job site facilities necessary to manage, inspect and supervise construction.

2.8 Bidding Documents and Advertisement for Bids

Review the bidding documents with the Architect, assemble bid data including copies of drawings and specifications provided by the Architect, to obtain competitive bids on appropriate segments of construction, including procurement of equipment, materials and supplies purchased under separate requisition.

2.9 Management Control System

The Construction Manager shall implement a management control system (MCS) for the design and construction of the project using both guide and automated procedures to support such functions as planning, organizing, scheduling, budgeting, reporting construction progress and expenditures, accounting, documentation, identifying variances and problems, decision making,

and decision implementation. The data provided by the management control system must be timely, must be responsive to the needs of management at all levels, and must be fully capable of providing a sound basis for management decisions.

2.9.1 Nature of Services to be Performed

The management control system shall incorporate three major subsystems, for use in meeting the objectives of the project in a total economical and acceptable manner. The Construction Manager shall provide the services, facilities and support equipment necessary to implement the MCS on the project.

2.9.2 Planning and Progress Monitoring Subsystems

Produce a preliminary construction schedule for initial review and approval.

Produce a final construction schedule that integrates the various construction contractors' plans into one complete and realistic schedule.

Provide for an occupancy schedule prepared in coordination with the Owner.

2.9.3 Budget Control and Accounting Subsystem

Provide for the periodic collection of proposed changes in the approved budget for all uncompleted tasks. The proposed but unapproved new budget figure is identified as the "current working estimate."

Identify variances between "current working estimate" and the approved budget. These variances are project cost overruns (under runs).

2.9.4 Documentation and Historical Subsystem

Provide documentation of all changes made in the approved schedule and approved budget so that complete traceability is maintained between the original plan (schedule and budget) and the latest approved plan.

2.9.5 Reports

The MCS, when fully implemented, will generate reports necessary for effective cost control of the overall construction Program.

Reports will be provided to management in summary form which will allow for management by exception. Reports will be provided to subordinate levels of management in sufficient detail consistent with their respective requirements and responsibilities.

2.10 Preparation of The Guaranteed Maximum Price

- 2.10.1 On or before the date given in Article 3 of this Agreement, the Construction Manager shall prepare an itemized Guaranteed Maximum Price for the entire project, clearly summarizing the costs for each component of the work as it will be packaged and bid. Such Guaranteed Maximum Price shall be the sum of:

- a. Reimbursable - An estimate of the cost of the reimbursable items as defined in Article 4 of PART B of this Construction Manager's Agreement; plus
- b. Cost of the Work - The Construction Manager's estimate of the cost of the work to be performed and materials to be purchased by separate contract including the cost of any separate contract, permits, fees, taxes, patents, copyrights, royalties, and performance and payment bonds to complete construction of the project, plus
- c. The cost of the Construction Manager's services as a fixed fee as set forth in PART B, Article 11.1.

2.10.1(a) Alternate to 2.10.1

When the design has been sufficiently developed, in the opinion of the Architect, Construction Manager and OAE, the Construction Manager shall prepare an itemized Guaranteed Maximum Price for the entire project, clearly summarizing the costs for each component of the work as it will be packaged and bid. Such Guaranteed Maximum Price shall be the sum of:

- a. Reimbursable - An estimate of the cost of the reimbursable items as defined in Article 4 of PART B of this Construction Manager's Agreement: plus
- b. Cost of the Work - The Construction Manager's estimate of the cost of the work to be performed and material to be purchased by separate contract, including the cost of any separate contract, including the cost of any separate contract permits, fees, taxes, patents, copyrights, royalties, and performance and payment bonds to complete construction of the project; plus
- c. The cost of the Construction Manager's services as a fixed fee, as set forth in PART B, Article 11.1.

2.10.2 The Guaranteed Maximum Price shall not include such Project expenses as cost of site, site survey and investigations, of professional design fees, construction testing and inspection, Owner's Project Inspector, moveable equipment, finance costs and furnishings. Cash allowances are prohibited in establishing the Guaranteed Maximum Price.

ARTICLE 3 TIME FOR PERFORMANCE

The Construction Manager shall submit a Guaranteed Maximum Price for acceptance by the Owner by (date) or within thirty (30) days after receiving the contract documents from the Architect, whichever is later. Upon submission of the GMP, the Owner shall accept or reject the offer submitted by the Construction Manager, as to proceeding with PART B of the Construction Manager's Agreement, within sixty (60) days after submission of the GMP, during which period the offered GMP may not be withdrawn or modified. Should the Owner not accept the GMP offered within such 60-day period, this Agreement shall be terminated.

ARTICLE 4 EXECUTION OF PART B OF THIS AGREEMENT

4.1 Upon the Owner's timely acceptance of the Guaranteed Maximum Price provided under Article 2.10 of this Agreement, the Construction Manager agrees to enter into PART B of this Agreement on the basis of the Construction Manager's offer to the Owner dated ____, 20__ .

4.2 Upon Execution of PART B of this Agreement the Construction Manager shall not be considered an

employee of the Owner. The Construction Manager shall perform his or her tasks and duties consistently in such status, and will make no claim or demand for any right or privilege applicable to an officer or employee of the Owner, including, but not limited to, workman's compensation, disability benefits, accident or health insurance, unemployment insurance, social security or retirement membership.

ARTICLE 5 CONSTRUCTION MANAGER'S COMPENSATION

5.1 The Owner will pay the CM as total compensation for services under Article 2 of this Agreement the fee of:

_____ dollars (\$_____).

1/ See Exhibit 3 - Construction Manager's Proposal.

5.2 Payments under this Agreement will be made for services under PART A, Article 2, after receipt of properly executed requests for payment as follows:

- a. 25% of the fee shown in Article 5.1 upon completion and acceptance of the services required to complete the preliminary drawings and specifications for the project
- b. 25% of the fee shown in Article- 5.1 upon completion and acceptance of the services required to develop the drawings and specifications to 50% completion.
- c. 25% of the fee shown in Article 5.1 upon completion and acceptance of an itemized Guaranteed Maximum Price as specified in Article 2.10.
- d. Upon satisfactory completion and acceptance of all design phase services specified under Article 2, the CM shall be paid the balance due under Article 5.1 of this Agreement.

ARTICLE 6 ASSIGNMENT AND TERMINATION

The Owner may, at its option, terminate this Agreement by giving the Construction Manager written notice of such termination and paying the Construction Manager for agreed services rendered to date of termination. Payment will be based upon the nearest level of completion specified in Article 5.2.

THE OWNER AND CONSTRUCTION MANAGER have, on this day, month and year first above written, executed this Agreement in two counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original thereof.

OWNER:

CONSTRUCTION MANAGER:

By: _____

By: _____

Attest: _____

Attest: _____

PART B**PART B - CONSTRUCTION MANAGEMENT SERVICES WITH GUARANTEED MAXIMUM PRICE**

THIS AGREEMENT, entered into this _____ day of _____, 20___, is by and between _____, hereinafter called the OWNER, and _____, hereinafter called the CONSTRUCTION MANAGER.

WHEREAS the Owner intends to erect a _____, hereinafter called the PROJECT, according to construction contract documents prepared by _____, hereinafter called the ARCHITECT: which documents are titled: _____, are identified by the Project Number _____, are listed with dates for each in the General Conditions.

THEREFORE, the Owner and the Construction Manager agree as follows:

ARTICLE 1 PURPOSE AND INTENT

- 1.1 The primary purpose and intent of PART B of this Agreement is to secure the services of a Construction Manager to organize and direct the complete construction of the project and to assume all risks and responsibilities of producing the project within a Guaranteed Maximum Price.
- 1.2 Upon notice that the Owner elects to proceed with PART B of this Agreement, the Construction Manager shall post performance and payment bonds each in the amount of 100% of the Guaranteed Maximum Price, and on written notice to proceed shall immediately accept assignment of and administer those contracts for which acceptable bids are in hand as provided under Article 2 of this Agreement.

ARTICLE 2 COMPETITIVE BIDDING

- 2.1 The bidding on construction contracts must be conducted so as to achieve maximum competition among qualified bidders in order to obtain the most reasonable price for acceptable work. Therefore, competitive bidding by formal advertising is the preferred method of contracting under a Construction Management Agreement.
- 2.2 Formal Advertising - For the purpose of this policy, the term "formal advertising" entails:
 - a. Preparation of the invitation for bids describing the building design and specifications clearly, accurately, and completely, but avoiding unnecessarily restrictive specifications or requirements which might unduly limit the number of bidders.
 - b. Publicizing the invitation for bids through distribution to prospective bidders, posting in public places, publication in newspapers and trade journals, and such other means as may be

appropriate, in sufficient time to enable prospective bidders to prepare and submit bids before the time set for public opening of bids.

- c. Awarding the contract, after sealed bids are publicly opened, to that responsible bidder whose bid, conforming to the invitation for bids, contains the lowest price offered.

2.3 Selective solicitation of bids—When selective solicitation of bids is permitted, the Construction Manager shall:

- a. Establish reasonable pre-qualification standards for bidders, acceptable to the Office of Architecture & Engineering, which shall be included in the "Information for Bidders" document. The Construction Manager shall forward a list of recommended bidders to the Owner for approval. (See Appendix A - Exhibit 8 - Sample pre-qualification statement for sub-contractors.)
- b. Solicit by written invitation and receive positive bid responses from three or more sub-contractors. Should less than three responsive bids be received, the Project shall be publicly advertised as described herein.
- c. Consider bids from any sub-contractor who requests permission to bid and who is determined by the Owner after consultation with the Construction Manager to meet bidding pre-qualification requirements set forth in the "Information for Bidders" document.

2.4 The general function of the Construction Manager is to serve as the Owner's representative with responsibility directly to the Owner. The CM's employment should be such to preclude any conflict of interest. In particular, the Construction Manager shall not bid any work in competition with bidding contractors. Neither the Construction Manager nor any firm in which a principal (i.e., over 10%) stockholder or member of the Construction Management firm has a financial interest, shall during the term of the contract, make or cause to be made any bid for construction work of the project referred to in this contract. Notwithstanding the foregoing, however, if the low bid for any bid package exceeds the Construction Manager's budget line item price for such package, or if less than three bids are received in response to the advertisement of any bid package, with the Owner's approval, one of the following procedures shall be followed:

- a. The CM shall negotiate with the low bidder to reduce the price of the bid package to a cost which will not exceed the budget line item price: or
- b. The CM shall reject all bids and issue a revised invitation to bid prepared by the project Architect and approved by the Owner: or
- c. The CM shall award to the low bidder for a price above the budget line item: or
- d. The CM shall perform the work for the amount of the budget line item price, or the Construction Manager's actual cost if lower than the budget price.

2.5 The Construction Manager may only perform work on the project under the provisions described in Article 2.4 above. Whichever of the foregoing procedures is followed, there shall be no reduction of the scope or quality of the project for any bid package in order to accomplish the project within the Guaranteed Maximum Price.

The CM shall be obligated to perform such work with the CM's own resources when it is necessary to

complete the project within the Guaranteed Maximum Price.

2.6 Contract Awards

- 2.6.1 The Owner shall be responsible for approving awards of all contracts after evaluation and recommendation by the Construction Manager and concurrence of the Project Architect. After Owner approval the Construction Manager shall make the award.
- 2.6.2 Participating Federal funds in this project require that all construction contracts between the Owner and contractors, between the Construction Manager and contractor, subcontractors and lesser tiers of subcontractors, incorporate the provisions of the current edition of the Department of Housing and Urban Development, Form HUD-2554. *Note: If construction does not begin within 90 days of initial endorsement, any modifications to a wage decision that occur after initial endorsement, any modifications to a wage decision that occur after initial endorsement become applicable to the construction work unless DOL approves a request from HUD for an extension. (See DOL regulations 29 CFR 1.6(c)(3)(ii) and (iv). In the less likely cases of a “project” wage determination issued upon request for an individual project the wage determination is effective for 180 days from the date of the determination. [29 CFR 1.6(a)(1)].*

2.7 Surety Bonds and Insurance

- 2.7.1 Construction Manager's Performance and Payment Bond - Upon notice that the Owner elects to proceed with PART B of the Construction Manager Agreement, the Construction Manager shall post performance and payment bonds each in the amount of 100% of the Guaranteed Maximum Price. HUD bond forms are required for Section 242 projects.

2.7.2 Insurance

- a. Construction Manager's Liability Insurance - Construction Managers shall be required to purchase and maintain such insurance as will protect them from claims set forth below which may arise out of or result from the Construction Manager's operations under the contract whether such operations be by the Construction Manager or by any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.
1. Claims under workmen's compensation, disability benefit and other similar employee benefit acts;
 2. Claims for damage because of bodily injury, occupational sickness or disease, or death of the Construction Manager's employees;
 3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Construction Manager's employees;
 4. Claims for damages insured by usual personal injury liability coverage which are sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by the Construction Manager, or (b) by any other person; and
 5. Claims for damages because of injury to or destruction of tangible property, including loss of use resulting there from.

- b. The Construction Manager's Comprehensive General Liability Insurance and Automotive Liability Insurance shall be in an amount not less than \$3,000,000 for injuries, including accidental death, to any one person and subject to the same limit for each person, and in an amount not less than \$3,000,000 on account of one occurrence.
 - c. The Construction Manager's Property Damage Liability Insurance shall be in an amount not less than \$1,000,000. The Construction Manager shall either (1) require each subcontractor to procure and to maintain during the life of the subcontract, Subcontractor's Comprehensive General Liability, Automotive Liability, and Property Damage Liability Insurance of the type and in the same amounts as specified in this Article, or (2) insure the activity of subcontractors in the Construction Manager's own policy. The Construction Manager's and subcontractors' liability insurance shall include adequate protection against special hazards.
 - d. Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the work. These certificates shall contain a provision that coverages afforded under the policies will not be canceled until at least fifteen day notice has been given to the Owner. *Evidence of Builder's Risk Insurance must be made available to HUD prior to HUD-242 initial endorsement.*
 - e. Owner's Liability Insurance - The Owner shall be responsible for purchasing and maintaining its own liability insurance and, at its option, may purchase and maintain such insurance as will protect against claims which may arise from operations under the Contract.
 - f. Property Insurance - Unless otherwise provided, the Owner shall purchase and maintain property insurance upon the entire work at the site to the full insurable value thereof. This insurance shall include the interests of the Owner, the Construction Manager, subcontractors, and sub-subcontractors in the work and shall insure against the perils of fire, extended coverage, vandalism and malicious mischief. In addition, if the property is located in a Special Flood Hazard Area (SFHA) designated on a Flood Insurance Rate Map issued by the Federal Emergency Management Agency (FEMA), the Owner shall purchase flood insurance on any building located in the SFHA.
 - g. The Owner shall purchase and maintain such steam boiler and machinery insurance as may be required by the Contract Documents or by law. This insurance shall include the interests of the Owner, the Construction Manager, subcontractors and sub-subcontractors in the work.
- 2.7.3 Each trade contract awarded by the Construction Manager is a separate contract awarded on the basis of competitive bidding. These contracts are referred to as subcontracts to conform to insurance terminology utilized in standard insurance policies. For insurance purposes the relationship of the Construction Manager to the trade contractor is the same as that of a general contractor to a subcontractor.
- 2.7.4 Bonding of trade contractors should be required when recommended by the Construction Manager. A specific statement with reference to bonding requirements shall be included in the information to bidders on each separately bid trade contract. Where bonding is not required, it should be stated clearly.

ARTICLE 3 CONSTRUCTION MANAGER'S TASKS

3.1 Obtain Separate Bids

- 3.1.1 Conduct with the Architect, pre-bid conferences to inform prospective bidders of requirements and answer questions concerning the bidding requirements for those parts of the work which have not been bid under PART A of the Agreement. The pre-bid conference may also serve as a means for obtaining comment from prospective bidders to clear up any ambiguities in the IFB documents. The requirements of Executive Order 11246, Equal Employment Opportunity (EEO) should be emphasized at the pre-bid conference. Where plans exist for affirmative action programs in "target areas" all prospective bidders shall be informed of the special requirements of such plans. The Owner and the Architect shall be represented at pre-bid conferences.
- 3.1.2 Award the separate contracts as required to provide all labor and materials for the construction of the project, including those parts of the work which have been paid under PART A of this Agreement.

3.2 Establishment of Construction Manager Organization

- 3.2.1 Establish organization and lines of authority required to carry out requirements of this Agreement in order to organize and direct the complete construction of the Project. A list of personnel, approved by the Owner, shall be included as a separate attachment to this Agreement, and shall be the key personnel to be used on the project.
- 3.2.2 Under the basic fee the Construction Manager will furnish the services of the key personnel named in the list of personnel attached hereto. No substitution of any of the key personnel will be made by the Construction Manager without the prior written consent of the Owner. Before any such substitution, the Construction Manager shall submit to the Owner a detailed justification supported by the qualification of any proposed replacement.
- 3.2.3 The services to be performed hereunder shall be performed by the Construction Manager's own staff, unless otherwise authorized by the Owner. The employment of, contract with, or use of the services of any other person or firm by the Construction Manager, as consultant or otherwise, shall be subject to the prior written approval of the Owner. Such approval shall not be construed as constituting an agreement between the Owner and any such person or firm.
- 3.2.4 All services under the contract shall be performed in a competent and efficient manner. The Owner may, in writing, require the Construction Manager to remove from the work any employee the Owner deems incompetent, careless, or otherwise objectionable and replace any such employee with suitable personnel.
- 3.2.5 Prepare and publish a field operation guide to implement the administration of the work to be performed under the terms of this Agreement. The guide shall include the following data:
- | | |
|------------------------------------|--------------------------------|
| a. Directory of Personnel | g. Contract Changes |
| b. Correspondence | h. Extensions of Time |
| c. Reports and Records | i. Progress Payments |
| d. Inspection Procedures | j. Final Acceptance Procedures |
| e. Shop Drawing Submittal | k. Additional Instructions |
| f. Testing Laboratories Procedures | |

3.3 Pre-Construction Conference

Conduct pre-construction conferences with successful bidders. Schedule and conduct meetings to be attended by the separate contractors and representatives of the Owner and Architect to discuss such matters of procedures, progress, problems, scheduling, labor standards (including overtime) and equal employment opportunity provisions. The Construction Manager shall take, transcribe, and distribute minutes of such meetings to principals in attendance.

3.4 Construction Estimate Revisions

Review and refine construction estimates as construction proceeds, and as required to incorporate approved changes to the Project as they occur. The Construction Manager shall advise the Architect and the Owner whenever construction costs deviate from the costs set forth in the itemized Guaranteed Maximum Price.

3.5 Shop Drawings, Materials, and Supplies

Establish and implement procedures to be followed for expediting the processing and approval of shop drawings, catalog, and samples, and the scheduling of material requirements.

3.6 Supervision of Separate Contractors

- 3.6.1 Maintain a competent full-time supervisory staff at the job site for the coordination and direction of the work of the separate contractors. Determine the adequacy of the separate contractor's personnel and equipment and the availability of necessary materials and supplies; take the action necessary to maintain the job schedule.
- 3.6.2 It is the responsibility of the Owner to maintain an inspection staff at the job site for the inspection of the work of the Construction Manager and the separate contractors, and to conduct factory inspections as required. The Construction Manager will participate with the Owner and the Architect in performing full project inspections at required intervals of completion as well as a pre-final and final inspection. The purpose of such inspections is to assure that the materials furnished and work performed are in accordance with the working drawings, specifications, and other contract documents and that the work on the project is progressing on schedule. The Architect shall have the authority to reject work which does not conform to the contract requirements. In the event an interpretation of the meaning and intent of the working drawings and specifications becomes necessary during the construction, the Construction Manager shall consult with the Owner and the Architect, obtain the interpretation in writing, and transmit the same to the appropriate separate contractor.

3.7 Comprehensive Safety Program

The Construction Manager shall review the safety programs developed by each of the separate contractors and prepare and submit to the Owner a recommended comprehensive safety program which complies with the requirements of the Occupational Safety and Health Act of 1970 (Performance of such services will not relieve the separate contractors of their respective responsibilities for safety of persons and property or from compliance with all applicable statutes, rules, regulations or orders). During construction, the Construction Manager shall monitor compliance by the separate contractors with their contractual safety requirements and report deficiencies.

3.8 Labor Relations

Make recommendations and render assistance as necessary for the development and administration of an effective labor relations program for the Project and the avoidance of labor disputes during construction.

3.9 Job Site Records

- 3.9.1 Maintain at the job site on a current basis records of all contracts including shop drawings; samples; purchases; subcontracts; materials; equipment; applicable handbooks; Federal, commercial and technical standards and specifications; and any other related documents and revisions thereto which arise out of this contract or the construction work. Prior to final payment, the records will be delivered to the Owner.
- 3.9.2 Maintain cost accounting records in accordance with established procedures with respect to portions of the work to be performed by change orders or otherwise on a time and materials, unit cost, or similar basis requiring the keeping of records and computation there from.
- 3.9.3 Keep accurate and detailed written records of the progress of the project during all stages of construction; submit monthly written progress reports to the Owner including, but not limited to, information concerning the work of each of the separate contractors, the percentage of completion and the number and amount of change orders. Maintain a daily detailed log of all events occurring on the job site or connected with progress of the project. The log shall be open to the Owner and the Architect at all times and shall be turned over to the Owner at the completion of the construction.
- 3.9.4 Maintain copies of the progress schedule at the job site to reflect current conditions and provide copies to the Owner with periodic reports as to deviations from the schedule, the causes of the deviations and the corrective action taken.
- 3.9.5 Maintain at the job site a current marked set of working drawing prints and specifications to facilitate the preparation of as-built drawings.
- 3.9.6 Furnish certified records in duplicate of building and approach lines; elevations of bottoms of footings, floor levels and approaches made as the work progresses.

3.10 Changes in the Work

- 3.10.1 Make recommendations to the Owner after consultation with the Architect for such changes in the work as the Construction Manager may consider necessary or desirable or as requested by the Owner.
- 3.10.2 Provide to the Architect such information including costs as he may require preparing necessary change orders and insuring that all change orders are properly carried out.

3.11 Payments to the Separate Contractors

Review and process all applications by the separate contractors for progress payments and final payments and make recommendations to the Owner for approval thereof. Upon approval, if duly authorized make payment to the separate contractors.

3.12 Storage of Materials and Equipment

Accept receipt of materials and equipment purchased by the Owner; provide storage and protection for materials and equipment until turned over to the separate contractors for installation.

B

ARTICLE 4 REIMBURSABLE COSTS

4.1 Reimbursable costs are defined as those costs and expenses incurred by the Construction Manager (exclusive of profit and overhead) for which reimbursement may be authorized in advance, in writing, by the Owner. Reimbursable costs shall be limited to General Condition Items and salaries for personnel employed on the project including the level of the Project Superintendent. Reimbursable may also include travel and per diem costs by the home office or job-site management personnel required to fulfill the Construction Management-Agreement Reimbursable costs shall include the following:

- a. The costs of all job site materials used in providing the general condition items
- b. The costs of all job site labor used in providing the general condition items, including the salaries of foreman and other employees below the level of the Project Superintendent including the salaries of specialized employees such as estimators, expeditors, and labor relations specialists used on an as-needed basis), subject to the prior approval of the Owner of all job site personnel, including the number of such personnel, their job classification and salaries.
- c. All payroll charges for job site personnel, such as FICA and other payroll taxes, workmen's compensation, disability benefits and unemployment insurance as required by law and wage supplements paid to labor organizations in accordance with current labor agreements: vacation expenses and sick leave allowances for such personnel not covered by labor agreements shall be reimbursed in accordance with the policy and trade practices applicable to wages or salaries paid to such employees for work in connection with the Project, subject to the prior approval of the Owner, provided, however, the contractor must comply with the Labor Standards Provisions applicable to the contract.
- d. The cost of all plant equipment owned by the Construction Manager at rental rates to be determined by the Owner in accordance with established principles for the derivation of costs of plant properly chargeable to job-site operations. The Construction Manager shall furnish its own plant and equipment, if available. For these purposes the rental rate on self-owned equipment shall be computed in accordance with market rates within the region of the project, and within industry standards, for the particular item of equipment, and any item of equipment required for a period of less than one month shall be prorated accordingly. However, the total amount of rental to be allowed by the Project Manager hereunder for any item of self-owned equipment shall not exceed the fair market value of such item at the time of its first use on the Project. The options for purchase of Construction Manager owned equipment shall be the same as provided for rental equipment under 4.1 e.
- e. Rental costs for equipment rented from others; provided, however, that every agreement under which the Construction Manager rents equipment from others shall contain an option or options for the Construction Manager's purchase of such equipment, if available. A copy of each such agreement shall be filed promptly with the Owner. The Construction Manager shall exercise any such option at the request of the Owner. In such event the Owner shall

- reimburse the Construction Manager for such purchase price and the Construction Manager shall dispose of such equipment as directed by the Owner and shall credit the proceeds thereof to the Owner.
- f. Transportation costs on equipment and materials.
 - g. Restricted quantities of small tools and supplies, which shall include among other items, all fire extinguishers and all special and protective wearing apparel.
 - h. The cost of fuel and lubricants, power, light, water, and telephone service if not provided directly by the Owner.
 - i. The amount of all sales and use taxes paid by the Construction Manager in connection with general condition items.
 - j. The amounts paid in accordance with subcontracts for General Condition items approved in advance by the Owner.
- 4.1.2 PROVIDED, however, that on all of the aforesaid items the Owner shall be credited with (a) such discounts of invoices as may be obtainable: (b) the salvage value of materials charged to the Owner and taken over by the Construction Manager for its use or sale when no longer needed by it in its performance of this Agreement: and (c) any rebates, refunds, returned deposits or other allowances properly credited to the Construction Manager's reimbursable costs and expenses hereunder.
- 4.2 Personnel Hourly Rate Schedule
- 4.2.1 A personnel hourly rate schedule shall be appended to this Agreement. The rate schedule shall be prepared by the Construction Manager and shall include the following data:
- a. A classification for each category of labor to be employed by the Construction Manager in performance of the General Condition items.
 - b. A specific rate for reimbursement of labor expended under each classification of labor in the performance of the General Condition items.
- 4.2.2 The personnel hourly rate schedule shall be used in determining the reimbursable amount due the Construction Manager in performance of General Condition items. The personnel hourly rate schedule shall not include the rates for officers, general supervisory employees, the construction executive, or engineering staff which have been provided for the Construction Manager's fee to organize and direct the complete construction of the project.

ARTICLE 5 GENERAL CONDITION ITEMS

- 5.1 General condition items shall be restricted to support type operations and shall not include labor and material utilized in construction of the project and resulting in a permanent part of the total facility.

5.2 General Condition items include, but are not limited to the following:

- | | |
|------------------------|--|
| a. Watchmen | j. Cleaning |
| b. Temporary toilets | k. Trucking |
| c. Temporary fencing | l. Refuse disposal |
| d. Sidewalk bridges | m. Temporary heat, water and electricity |
| e. First aid station | n. Field office and its related costs, equipment
and furnishings |
| f. Temporary elevators | o. Messenger service |
| g. Signs | p. Limited rental of automobiles for employee use only with prior
approval of Owner |
| h. Safety barricades | |

ARTICLE 6 ADJUSTMENT FOR CHANGES IN SERVICES

The Owner may, at any time, by written order, make changes to this contract for the services to be performed. If such changes cause a substantial increase or decrease in the Construction Manager's cost of performance of any services under this contract, the changes shall be indicated in writing. Exception: No increase in the Construction Manager's fee shall be permitted when the cost for such services results from changes in work generated from return of savings expected and agreed upon with the Owner. Any claim of the Construction Manager for adjustment must be asserted in writing within 30 days from the date of receipt by the Construction Manager of the notification of change unless the Owner grants a further period of time before the date of final payment under this contract. No services for which an additional cost or fee will be charged by the Construction Manager shall be furnished without prior written authorization of the owner. If a change occurs due to an excess in work and cost beyond the GMP, the additional cost including any proposed fee must be reviewed on a case by case basis, by the Owner, CM and HUD as are all changes, and in no case will the fee or general conditions be preset by the CM contract on a percentage basis. On HUD - 242 projects this agreement shall not be assignable by either party without the prior consent of the other party, the Lender and the Secretary of DHUD, except that the Owner may assign the Agreement to the Lender or the Secretary of Housing and Urban Development.

ARTICLE 7 SUSPENSION OF WORK - DELAYS

The Owner may order the Construction Manager in writing to suspend, delay, or interrupt all or any part of the part on the project for such period of time as he may determine to be appropriate for the convenience of the Owner.

If the performance of all or any part of the work on the Project is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of the Owner in the administration of the Project, an adjustment shall be made for any increase in the cost of performance of this contract necessarily caused by such unreasonable suspension, delay or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent (a) that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Construction Manager, or (b) for which an equitable adjustment is provided for or excluded under any other provision of the contract.

In the event work on the Project is suspended or otherwise delayed, the Owner shall reimburse the Construction Manager for the costs of his or her full job site staff provided for by this Agreement for the first 30 days of such delay. The Construction Manager shall reduce the site of the job site staff for the remainder of the delay period as directed by the Owner, and during such period, the Owner shall reimburse the Construction Manager for the costs of such reduced staff plus an amount not to exceed 30% for related payroll taxes, insurance, pensions, and fringe benefits. Upon the termination of the delay the

Construction Manager shall restore the job site staff to its former size, subject to the approval of the Owner.

ARTICLE 8 ARBITRATION

Any controversy arising out of or relating to this Agreement or the breach thereof shall be settled by arbitration in accordance with the rules then obtaining of the American Arbitration Association and judgment upon the award may be entered in any court having jurisdiction thereof.

ARTICLE 9 TERMINATION

The Owner may terminate all or any portion of the services to be performed by the Construction Manager under this Agreement, or any additions or modifications thereof, upon giving the Construction Manager 30 days written notice of such termination. In the event of termination, the Construction Manager shall deliver to the Owner all reports estimates, schedules and other documents and data prepared pursuant to this Agreement.

The Construction Manager shall be entitled to receive payments for services provided to date of termination (including payment for the period of the 30-day notice) plus the percentage retained thereon and reimbursement for approved reimbursable costs and expenses incurred by the Construction Manager to the date of termination. Prior to payment, the Construction Manager shall furnish the Owner with a release of all claims against the Owner, other than claims in stated amounts as may be specifically excepted by the Construction Manager from the operation of the release.

ARTICLE 10 TIME FOR COMPLETION

10.1 The Schedule showing required design and construction completion dates is included in Appendix ____ attached to this Agreement and incorporated herein by reference. In the absence of a specified completion date, the construction shall be substantially completed within calendar days.

ARTICLE 11 CONSTRUCTION MANAGER'S COMPENSATION

11.1 The Owner will pay the Construction Manager as total compensation for services under PART B, Article 3, the fee of:

_____ Dollars (\$_____)

11.2 The Owner will pay the Construction Manager, on a reimbursable basis, for services provided under PART B, Article 4, Reimbursable Costs, and Article 5, General Conditions Items, an amount not to exceed the sum of:

_____ Dollars (\$_____)

11.3 The Owner will pay the Construction Manager a sum equal to the cost of all separate contracts awarded and materials purchased or the construction of the project not to exceed the sum of:

_____ Dollars (\$_____).

Subject to prior formal approval by the Owner, based on reasonable justification by the Construction Manager, excess funds may be transferred between Article 11.2 and Article 11.3. Attached is a breakdown showing the dollar amount allotted to each bidding package; all of which total this amount.

11.4 The amounts paid to the Construction Manager under Article 11.1 thru 11.3 of PART B of this Agreement shall not exceed the Guaranteed Maximum Price of:
_____ Dollars (\$_____)

11.5 Payments to the Construction Manager will be made for services under PART B of this Agreement consistent with the Department of Housing and Urban Development's ' retainage requirement as defined below, on a monthly basis after receipt of properly executed application for payment. Retainage retention is mandatory in the Section 252 HUD Program.

a. Retainage requirement for the purposes of this Article is defined as the withholding of 10% on the entire request for payment by the Construction Manager

1. The fee for services performed.
2. The cost of the work performed.
3. The reimbursement of general condition items.

Retainage will be held as described herein up to 50% of the GMP on a cumulative basis. Thereafter, with the approval of the Architect, the Owner, the *Lender*, the Department of Housing and Urban Development, and the Surety, no further retainage maybe required on the balance.

b. After completion and acceptance of all construction work and upon receipt of a release of claims pertaining to all work performed under the terms of this Agreement, the full amount including retainage due the Construction Manager shall be paid at the time of final endorsement of the mortgage.

11.6 The Construction Manager shall file no mechanic's or material man's lien or maintain any claim against the Owner's real estate or improvements for or on account of any work done, labor performed or materials furnished under this Construction Management Agreement.

ARTICLE 12 GUARANTEE AND CORRECTION OF WORK

12.1 The Construction Manager warrants and guarantees that title to all work, materials and equipment covered by an application for payment, whether incorporated in the project or not, will pass to the Owner upon the receipt of such payment by the Construction Manager, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to as "liens" and that no work, materials or equipment covered by an application for payment will have been acquired by the Construction Manager; or by any other person performing the work at the site or furnishing materials and equipment for the project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Construction Manager or such other person.

12.2 Correction of Work

12.2.1 The Construction Manager shall promptly provide for correction of all work rejected by the Architect as defective or as failing to conform to the Construction Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Construction Manager shall bear all cost of correcting such rejected work, including the cost of the Architect's additional services thereby made necessary.

12.2.2 If, within one year after the Date of Substantial Completion or within such longer period of time

as may be prescribed by law or by the terms of any applicable special guarantee required by the Construction Documents, any of the work is found to be defective or not in accordance with the Construction Documents, the Construction Manager shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Construction Manager a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition.

- 12.2.3 If the Construction Manager does not remove such defective or non-conforming work within a reasonable time fixed by written notice from the Architect, the Owner may remove it and may store the materials or equipment at the expense of the Construction Manager. If the Construction Manager does not pay the cost of such removal and storage within ten days thereafter, the Owner may upon ten additional days written notice sell such work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Construction Manager including compensation for additional Architectural services. If such proceeds of sale do not cover all costs which the Construction Manager should have borne, the difference shall be charged to the Construction Manager and an appropriate Change Order shall be issued.

ARTICLE 13 BONDS

The CM Agreement must be executed by both parties and a 100% Performance and Payment Bond acquired prior to submittal to OAE for final approval. Included shall be a statement that this executed document is conditioned upon a successful execution of a loan agreement between the Owner and HUD when Section 242 of the FHA Hospital program is used. Be advised that DHUD requires DHUD approved bond forms, for Section 242 Hospital projects.

ARTICLE 14 SAVINGS

In the event the aggregate, actual, construction costs are below the Guaranteed Maximum Price, all savings shall accrue 100% to the Owner. These savings can be made available, by the Construction Manager, to the Owner during the construction period so as to include items which were previously deleted. A mutually agreed upon procedure whereby the CM incrementally will make available to the Owner portions of the savings, during the construction period, should be agreed upon and included in the contract.

ARTICLE 15 FINAL DRAWINGS

The submittal of the Guaranteed Maximum Price is the total cost of construction of said project including all labor, materials and other items required to provide a complete, functional project whether shown on said plans and specifications or not and including compliance with all Local, State, and Federal requirements. The final plans and specifications will become part of this contract with no change in the Guaranteed Maximum Price or time period.

ARTICLE 16 LIQUIDATED DAMAGES

As stated previously in this guide, liquidated damages are recommended in all construction programs; however, they are mandatory in Department of Housing and Urban Development, FHA Section 242 projects. The Owner will suffer financial loss if the project is not substantially complete on the date set forth in the Contract Documents. The Construction Manager (and Surety) shall be liable for and shall pay to the Owner the sums hereinafter stipulated as fixed, agreed and liquidated damages for each calendar day of delay until the work is substantially

complete:

_____ (\$ _____). *This amount is based upon \$.09/\$1,000 of total construction cost in the contract, ie. GMP.*

- a. In cases where there are several buildings, wings, and/or phases which will be occupied by the Owner as they become available, the overall liquidated damages shall be reduced accordingly.
- b. The document shall identify the phase, indicated the completion date and the pro-rata liquidated damage assessment dollar amount for each phase. A simple wording is as follows:
 - 1. For each calendar day that the new construction work at the East Wing (Phase A) remains incomplete beyond 180 calendar days from the formal notice to proceed, liquidated damages in the amount of \$13,000 will be assessed.
 - 2. For each calendar day that the renovation work in the Jones Building (Phase B) remains incomplete beyond 105 calendar days from the formal notice to proceed, liquidated damages in the amount of \$2,500 will be assessed.
 - 3. For each calendar day that the work in the Smith Building (Phase C) remains incomplete beyond 128 calendar days from the formal notice to proceed, liquidated damages in the amount of \$500 per day will be assessed.

N.B. *The above information for liquidated damages is provided for guidance only and should be discussed and approved by HUD.*

THE OWNER AND THE CONSTRUCTION MANAGER have, on the day, month and year first written, executed this Agreement in two counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original thereof

OWNER

CONSTRUCTION MANAGER

By: _____

By: _____

Attest: _____

Attest: _____

EXHIBIT 5
PERFORMANCE BOND AND PAYMENT BOND SAMPLE FORMS

Note: For HUD FHA-242 projects only HUD format of Performance and Payment Bonds are acceptable.

PERFORMANCE BOND FORM

FORM FOR-CONSTRUCTION MANAGER'S PERFORMANCE BOND

(Sample only, may vary depending on surety, format, etc)

KNOW ALL MEN BY THESE PRESENTS that we _____, as Principal, and _____, as Surety, are held firmly bound unto _____, as Obligee, hereinafter called the Owner, in the sum of _____ Dollars (\$ _____), for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that whereas the Principal entered into a contract in the prescribed Construction Manager's Agreement, PART B, with the Owner, dated _____, for _____, which contract is by reference incorporated herein and is made a part hereof as fully as if here set forth at length:

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof that may be granted by the Owner with or without notice of the Surety, and during the life of any guarantee required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, then this obligation shall be void; otherwise this obligation shall remain in full force and virtue.

IN WITNESS thereof, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by each party's undersigned representative, pursuant to authority of its governing body

ATTEST: _____ (Principal)
_____ (Address)
_____ (By)
_____ (Title)

ATTEST: _____ (Surety)
_____ (Address)
_____ (By)
_____ (Title)

(To be filled in by Surety)

Rate of premium of this bond is \$ _____ per thousand.

Total amount of premium charged is \$ _____ .

PAYMENT BOND

FORM OF CONSTRUCTION MANAGER'S PAYMENT BOND

(Sample only, may vary)

KNOW ALL MEN BY THESE PRESENTS, that we, _____, as Principal, and _____, As Surety are held and firmly bound unto _____, as Obligee, hereinafter called the Owner, in the sum of _____ Dollars (\$ _____), for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The conditions of this obligation are such that whereas the Principal entered into a contract in the prescribed Construction Manager's Agreement, PART B, with the Owner, dated _____ for _____, which contract is by reference incorporated herein and is made a part hereof as fully as if here set forth at length:

NOW THEREFORE, if the Principal shall promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, then this obligation shall be void: otherwise this obligation shall remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 20 __, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by each party's undersigned representative, pursuant to authority of its governing body.

ATTEST: _____ (Principal)
_____ (Address)
_____ (By)
_____ (Title)

ATTEST: _____ (Surety)
_____ (Address)
_____ (By)
_____ (Title)

(To be filled in by Surety)

Rate of premium of this bond is \$_____ per thousand.

Total amount of premium charged is \$_____ .

EXHIBIT 6
OPTIONAL SAMPLE FORMS THAT MAY BE USED IN REQUESTING CONSTRUCTION
MANAGEMENT FIRMS TO SUBMIT BIDS

1 - INVITATION TO BID FOR CONSTRUCTION MANAGEMENT SERVICES

2 - ADDENDA FORM

3 - CONSTRUCTION MANAGER'S BID BOND FORM

4 - CONSTRUCTION MANAGER'S BID FORM

INVITATION TO BID FOR CONSTRUCTION MANAGEMENT SERVICES

Role

Bids are invited for the role of Construction Manager (CM) for "the Project" consisting of the construction of:

_____ (Project Title)

_____ (City & State)

The Construction Manager system will be used in which the Construction Manager performs professional management services, but does not perform with his or her own forces any of the construction work with the exception of General Conditions. The Construction Manager shall operate as a member of an Owner-Architect-Construction Manager team which will be involved with production of the project.

The Construction Manager is essentially an organization which has proven ability to provide technical consultation during the design stage of the project and to act as manager of construction in organizing and directing construction activities on a project of the scope and complexity similar to that identified above. He shall be responsible for cost estimates and cost control, review of design during the entire process with a view towards value engineering, construction coordination and scheduling, and direction of all construction activities. The function of the Construction Manager, coupled with the above shall be the assumption of administrative duties in conjunction with the Owner and Architect towards procurement, bidding and contracting for materials and labor as required for construction of the Project.

The services of the Construction Manager will be procured by competitive bids under a two-part agreement.

PART A will include:

1. Consultation related to systems, sequences of events, materials, and components.
2. Implementation of a management control system (MCS) for use in meeting the objectives of the project in a timely, economical, and acceptable manner.
3. Preparation of cost estimates and cost comparisons, including long-term cost effects of various alternatives.
4. Development of an acceptably Guaranteed Maximum Price, as set forth in PART A, Article 2.10, of the Construction Manager's Agreement.

PART B will include:

1. The management and general supervision of the entire construction work.
2. The performance of general condition items.
3. The assumption of the responsibility for completing the project within the Guaranteed Maximum Price, which shall be as set forth in Part A, Article 2.10 of the Construction Manager's Agreement.

Project Description

The proposed _____, to be located
will contain approximately _____ gross square feet,
levels, and will include:

(BRIEF PROJECT DESCRIPTION)

Proposed Design and Construction Schedule

- 1. Completion of Schematic Design.....
- 2. Completion of Preliminary Design...
- 3. Development of Working Drawings
and Specifications to a stage
upon which the Guaranteed
Maximum Price will be established.....
- 4. Completion of Bid Packages for
Separate Contracts (a)
- (b)
- (c)
- (d)
- (e)
- 5. Start of Construction
- 6. Completion of Construction

The Building Team

It is the intent of the Owner to provide for early consolidation of the team of Owner architect/and Construction Manager which allows acceleration of project development, production of drawings and specifications, procurement of labor and materials; early commencement of work; reduction in construction costs and finally, early occupancy.

PROJECT OWNER

PROJECT OWNER'S AGENT

ARCHITECT

FEDERAL AGENCY FURNISHING FINANCIAL ASSISTANCE

Bidders for Role of Construction Manager

Only proposals from firms selected on the basis of prequalification information submitted ____ (Date) will be considered.

Bidders are cautioned that FHA-242 projects require that all construction contracts between the Owner and the Construction Manager and between his subcontractors and lesser tiers of subcontractors for work on this Project shall require the current edition of HUD-2554 Supplementary Conditions of the Contract for Construction.

Preparation of Bids

Form of bid issued in the bidding documents shall be properly and completely filled out, submitted in sealed envelopes, and marked plainly as noted below. All lines on the blank forms shall be filled in with those elements of Title and Location of the Bidder. No other form of bid will be considered.

Any bid may be rejected as incomplete which is in any way conditional, or which makes alterations, omissions, or reservations to terms of the bidding documents.

Figures are required both in letters and in numerals. It shall be understood that, in the event of conflict between lettered quotations and numerical quotations, lettered quotations shall govern.

Bid data except signatures shall be typed or printed legibly in ink. Mistakes may be crossed out and corrections inserted adjacent if each is initialed in ink by signer of bid.

Each bid shall show full business address of the Bidder and be signed with the Bidder's usual signature. Bids by partnerships shall furnish full name of all partners and shall be signed in partnership name by one member of partnership or by an authorized representative, followed by signatures and designation of person signing. Bids by corporations, with corporate seal affixed, shall be signed with legal name of corporation followed by name of State of incorporation and by signature and designation of person authorized to bind it in the matter. Name of each person signing shall also be typed or printed below respective signatures. The Owner may require satisfactory evidence of the authority of the officer signing in behalf of the corporation.

Bid Security Required

Each bid shall be accompanied by a bid bond or certified cashier's check payable to the Owner in an amount equal to 5 percent of the bid price. This security shall act as guarantee that the Bidder shall not withdraw the bid during the period stipulated below, and that, if awarded such contract by the Owner, the Bidder shall enter into contract for the role of Construction Manager in the form provided and shall provide insurance and other bonds as required.

The Bidder shall guarantee his or her offer for a period of _____ days from date designated herein for receipt of bids. All but the three lowest bids may be withdrawn by bidders after seven days following date for receipt of bids. Should extensions beyond this period be required, it will be by mutual agreement with the remaining three lowest Bidders.

Bid securities will be returned to the three lowest Bidders following date of execution of PART A of the Construction Manager's Agreement with the successful bidder, or at the expiration date of period stated above for the Bidders to guarantee their bids, whichever date occurs first.

If PART A of the Construction Manager's Agreement has not been executed within the period designated

for the Bidders to guarantee the low bids, any Bidder's bid security will be returned upon request unless the Bidder has been notified of bid acceptance prior to such request.

Procurement of Bidding Documents

Bidders will be issued, without charge, schematic drawings, schematic specifications and a proposed schedule, for design and construction of the Project. Also to be issued: Construction Manager's Agreement, and forms for contract security.

Time and Place for Issue of Bidding Documents

A Project Information Conference is scheduled for _____ (Time, Date, and Location)

Bidders for Construction Management Services shall attend this conference in person or be represented by a responsible managing officer.

Time Deadline and Place for Receipt and Opening of Bids

(Time, Date, and Location)

A bid shall be placed, together with a copy of bid security, in a sealed envelope addressed to said Owner and inscribed in lower left hand corner: "**BID FOR ROLE OF CONSTRUCTION MANAGER.**"

Bidder shall be responsible for delivery of bid to the specified address by or before the time stated above. No Bid will be accepted after that hour and date.

Bids will be opened and publicly read immediately after the hour for receipt. Bidders may be present at the opening. No further notice of opening will be given except of change in opening place, date, or hour.

Award of Contract

The Owner intends to enter into PART A of the Construction Manager's Agreement with the lowest responsive and responsible bidder. Part A, as per the Construction Manager's Agreement, will be limited to services of Design Consultation until the final actual price of construction is established, to be compensated for according to the successful bidder's proposed Personnel Rate - Schedule and binds the Bidder to performance of PART B upon obtaining a Guaranteed Maximum Price - within the Owner's available funds provided such action is in the Owner's best interest. PART B will be concerned with the actual construction of the Project.

The Owner reserves the right to waive minor irregularities in any responsive bid and to reject any or all bids.

Identity of the successful bidder may not be determined at the time of opening bids: the Owner reserves the right to obtain opinion of Counsel and the Architect on the legality and sufficiency of all bids.

Execution of Contract

Within 10 days after the Owner notification in writing of intent to award a Construction Manager's Agreement, the successful bidder shall enter into PART A of such agreement according to the Construction Manager's Agreement issued with the bidding documents. Bidders are advised that should

they be awarded PART A of the CM Agreement they will be required to furnish the following surety bonds and file them with the Owner prior to being awarded PART B of the Construction Manager's Agreement. Bonds shall be in the form issued with the bidding documents, made payable to the Owner, issued by corporations legally licensed to transact business at the place of the work and satisfactory to the Owner, and shall be issued at the successful Bidder's expense and maintained by him or her for life of the Contract. The successful Bidder shall verify number of copies of each bond required.

- (1) Performance Bond in amount of 100 percent of the Guaranteed Maximum Price to assure the Owner of full and prompt performance of the Construction Manager's Agreement.
- (2) Labor and Materials (Payment) Bond in amount of 100 percent of the Guaranteed Maximum Price to assure payment of any and all claims for labor and materials used or consumed in construction of the Project.

Discrepancies and Ambiguities

Any Bidder in doubt as to intent or meaning of any portion of bidding documents may make inquiry to the Architect for clarification not less than five working days before deadline specified for receipt of bids.

If documents are in error or do not fully explain the role, the Architect will issue written Addenda and distribute them to all set holders of record. Neither the Architect nor the Owner will be responsible for oral answers to inquiries.

Personnel Hourly Rate Schedule

Bidders are required to submit a schedule with their bids indicating the hourly rate to be paid for labor in performance of General Condition Items set forth in the Construction Manager's Agreement, PART B, Article 4.

ADDENDUM NO. 1

PROJECT NO.

To Bidding Documents for Project Title

Holders of Bidding Documents for the Subject project are hereby informed that these documents are modified as noted in this Addendum; and that all conditions not modified herein remain unchanged.

1. The following pages or sheets of the Bidding Documents are revised by this Addendum and are enclosed herewith as revised to replace the respective original pages:

DOCUMENT NAME

PAGE/SHEET NOS.

2. The following new pages of the Bidding Documents are issued by this Addendum and are enclosed herewith to supplement the data previously issued:

DOCUMENT NAME

PAGE/SHEET NOS.

CONSTRUCTION MANAGER'S BID BOND SAMPLE FORM

KNOW ALL MEN BY THESE PRESENTS that we _____ As Principal, and _____ ,
as Surety, are held and firmly Bound unto _____ , as Obligee, hereinafter called the Owner, in the
amount of _____ Dollars (\$ _____), for payment of which
sum well and truly to be made, we bind ourselves, or heirs, executors, administrators and successors,
jointly and severally, firmly by these presents.

The Conditions of this obligation are such that whereas the principal submitted to the Owner a certain
Bid, attached hereto and hereby made a part hereof, to enter into a contract in writing for _____.

NOW THEREFORE, if said Bid shall be rejected; or if said Bid shall be accepted, and the Principal shall
execute a contract in the prescribed Construction Manager's Agreement, PART A, and shall diligently
perform all the terms of said PART A Agreement, and if either (1) the Principal's Guaranteed Maximum
Price developed there under be not accepted by the Owner within the Bid guarantee period: or in the
alternative (2) if the said Principal's Guaranteed Maximum Price be accepted by the Owner within the Bid
guarantee period and the Principal shall execute a contract in the prescribed Construction Manager' s
Agreement, PART B, and shall execute and deliver Performance and Payment Bonds in the forms
prescribed, and shall in all other respects perform the agreement created by the acceptance of said Bid,
then this obligation shall be void; otherwise this obligation shall remain in force and effect, it being
expressly understood and agreed that the liability of the Surety for any and all default of the Principal
hereunder shall be the amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its
bond shall in no way be impaired or affected by any extension of the time within which the Owner may
accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several
seals this _____ day of _____ 20 __ , the name and corporate seal of each corporate party being
hereto, affixed and these presents duly signed by its undersigned representative, pursuant to authority of
its governing body.

ATTEST: (Principal)

(Address)
(By)
(Title)

ATTEST: (Surety)

(Address)
(By)
(Title)

(To be filled in by Surety)

Rate of premium of this bond is \$ _____ per thousand.

Total amount of premium charged is \$ _____ .

CONSTRUCTION MANAGER'S BID SAMPLE FORM

BID FORM

DATE:

_____ (Owner)
 _____ (Name of Facility)
 _____ (Address)
 _____ (City, State, Zip)

Gentlemen:

THE UNDERSIGNED, doing business under the name of _____ having examined the bidding documents prepared by _____ .

(Architect) which documents consist of Schematic Drawings and Schematic Specifications, General Conditions, Construction Manager's Agreement, Performance Bond Forms and Payment Bond Forms; and having examined the Invitation to Bid, this Form of Bid, and the Form of Bid Bond; and having examined all Addenda and Notices which modify or clarify the above listed items, hereby agrees to furnish all services and to perform all the work described by these contract documents according to the conditions prescribed therein for the following considerations:

ITEM 1. For services limited to the Design Consultation until the final actual price is established, and development of an acceptable Guaranteed Maximum Price for construction as defined in the Construction Manager's Agreement, PART A, Article 2, "Construction Manager's Tasks," in the fee of:

_____ Dollars (\$) - 1/

ITEM 2. For services during construction, as defined in the Construction Manager's Agreement, PART B, Article 3, "Construction Manager's Tasks," the fee of:

_____ Dollars (\$))

1/ Item 1 may not exceed 15% of the total of Item 1 and 2.

GUARANTEE: The undersigned guarantees his or her bid for a period of _____ days from date designated for receipt of bids and understands that the bid may not be withdrawn during this period.

ADDENDA: Receipt of all addenda or notices issued prior to receipt of bids is acknowledged as follows:

Addendum No. _____ dated

Addendum No. _____ dated

Addendum No. _____ dated

CLASSIFICATION OF BIDDER (Type or print answers to classification below which defines the Bidder's type of organization; furnish all information required for appropriate classifications:

BIDDER IS AN INDIVIDUAL

(Name as stated on State Contractor's License)

BIDDER IS AN INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME

(Firm name as stated on State Contractor's License)

(Individual's name as stated on State Contractor's License)

BIDDER IS A PARTNERSHIP

(Partnership name as stated on State Contractor's License)

Names of all Partners:

() BIDDER IS A CORPORATION

(Full name of corporation as stated on State Contractor's License)

Corporation is incorporated in State of _____.

() BIDDER IS A JOINT VENTURE

(Full name of joint venture as stated on State Contractor's License)

Joint Venture is incorporated is State of _____.

INSURANCE

Workmen's Compensation Insurance is placed with:

Public Liability and Property Damage Liability Insurance is placed with:

EXECUTION OF CONTRACT: If written notice of acceptance of this bid is mailed, telegraphed, or delivered to the Undersigned within the time stated in the Invitation to Bid for Construction Manager, or any time thereafter before this bid is withdrawn, the Undersigned shall, within 10 calendar days after date of receipt of such written notice, execute and deliver PART A of the Construction Manager's Agreement as issued with the bidding documents and shall diligently perform all terms and conditions of said PART A, including but not limited to, submission of a Guaranteed Maximum Price by _____(date). If, after submission of the Guaranteed Maximum Price, a written notice of acceptance, by the owner, of the Bidder's Guaranteed Maximum Price is mailed, telegraphed, or delivered to the Undersigned, the Undersigned shall, within 10 calendar days after receipt of such written notice, execute and deliver to the Owner a contract in the form of PART B of the Construction Manager's Agreement, and provide Performance and Payment Bonds and certificates of insurance as required by the General Conditions and any Supplemental General Conditions.

BIDDER'S SIGNATURE (Affix Corporate Seal if Incorporated):

Signed

Title

Signed

Title

Name of Firm, Partnership, of Corporation:

Business Address:

Mailing Address/number to which notice of acceptance may be mailed or faxed:

ENCLOSURE: Personnel Hourly Rate Schedule for determining labor costs under Construction
Manager’s Agreement, PART B Article 5, General Conditions.

EXHIBIT 7
CONTRACT TIME AND SUBSTANTIAL COMPLETION

Definitions:

The Contract Time is the period of time allotted in the Contract Documents for completion for the Work.

The date of commencement of the Work is the date established in a notice to proceed. If there is no notice to proceed, it shall be the date of the Agreement or such other date as may be established therein.

The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Architect when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner may occupy the Work or designated portion thereof for the use of which it is intended.

The term day as used in the Contract Documents shall mean calendar day.

Progress and Completion

All time limits stated in the Contract Documents are of the essence of the Contract.

The Contractor shall begin the Work on the date of commencement. He shall carry the Work forward expeditiously with adequate forces and shall complete it within the Contract time.

If a date or time of completion is included in the Contract, it shall be the date of Substantial Completion including authorized extensions thereto, unless otherwise provided.

Delays and Extensions of Time

If the Contractor is delayed at any time in the progress of the Work by any act or neglect of the Owner or the Architect, or by any employee of either, or by any separate contractor employed by the Owner, or by changes ordered in the work, or by labor disputes, fire, unusual delay in transportation, unavoidable casualties, or any causes beyond the Contractor's control, or by delay authorized by the Owner pending arbitration, or by any cause which the Architect determined may justify the delay, then the Contract time shall be extended by Change Order for such reasonable time as the Architect may determine.

All claims for extensions of time shall be made in writing to the architect no more than twenty days after the occurrence of the delay; otherwise they shall be waived. In the case of a continuing cause of delay only one claim is necessary.

If no schedule of agreement is made stating the date upon which written interpretations shall be furnished, then no claim for delay shall be allowed on account of failure to furnish such interpretations until fifteen days after demand is made for them, and not then unless such claim is reasonable.

This paragraph does not exclude the recovery of damages for delay by either party under other provisions of the Contract Documents.

Substantial Completion and Final Payment

When the Contractor determines that the Work or a designated portion thereof acceptable to the Owner is substantially complete, the Contractor shall prepare for submission to the Architect a list of items to be

completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Architect on the basis of an inspection determines that the Work is substantially complete, he will then prepare a Certificate of Substantial Completion which shall establish a Date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for maintenance, heat, utilities and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate.

Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, if the Work is acceptable under the Contractor Documents and the Contract is fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of his or her knowledge, information and belief, and on the basis of observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, and noted in said final Certificate, is due and payable.

EXHIBIT 8
SAMPLE PRE-QUALIFICATION STATEMENT FOR SUB-CONTRACTORS

All Sub-Contractor Bidders must submit a sworn, notarized certificate stating that they comply * with the following pre-qualification.** Each bidder:

1. Must have completed a minimum of five hospital projects in the past 15 years, and one of which must have been completed within the past 5 years.
2. Must have completed a minimum of 10 projects of not less that \$3 million in cost within the last 10 years.
3. Must have completed at least 5 alteration projects in the last 5 years.
4. Must have been in the contracting business a minimum of 10 consecutive years under the present time.
5. Shall not now, nor have been in the past, disqualified for cause from bidding on any Federal, State or City Agency.
6. Must be capable of providing a performance bond equal to 100% of the contract and a labor and material payment bond of not less than 100% of contract.
7. Must be able to provide a bid bond to pay CM, should he fail to sign and execute the contract, an amount equal to 5% of his base bid.
8. Must have at least 5 full time field construction superintendents permanently employed on his active payroll.
9. Must provide a full time field construction superintendent having a minimum of 10 consecutive years' s experience on projects of \$5 million or more.
10. Must submit a detailed financial statement showing that his assets exceed his liabilities, and by how much.

* Revisions may be made to suit need of particular project.

** Pre-qualifications shall be submitted *for review and approval* to the Office of Architecture & Engineering **prior to issuance.**

PART III – GUIDE FOR PROJECT APPLICANTS: DESIGN-BUILD SERVICES

1. INTRODUCTION

Use of a design-build project delivery methodology has been in existence for approximately five years in the FHA-242 and FHA 241 program. The previous design-build policy was basically created in May 2008 and was based upon the guidance of HUD Handbook 4615.1 at that time. This latest policy reflects current design-build formats used in the industry as well as refinements made specifically for these HUD hospital programs since that date.

2. POLICY

Allow this design-build project delivery methodology to be utilized under Section 242/241 of the National Housing Act. Whereas the previous policy permitted the construction line item to be limited to \$60 million, this new policy has no dollar limitation.

3. IMPLEMENTATION PROCESS

The design-build process detailed herein is to be utilized in-lieu of prior policies and is to be required for applications including design-build projects submitted after April 30, 2012. It constitutes a waiver of the old handbook section which did not permit this methodology and needs no longer be approved on a case-by-case basis. A waiver of competitive bidding will no longer be required by the Director OHP by this methodology if it is not fully utilized as it was previously as long as the conditions enumerated herein are followed.

All the American Institute of Architects (AIA) Documents must be utilized as follows:

AIA Document A141-2004-Standard Form of Agreement Between Owner and Design-Builder

AIA Document A141-2004-Exhibit A-Terms and Conditions

AIA Document A141-2004-Exhibit B-Determination of the Cost of the Work

AIA Document A141-2004-Exhibit C-Insurance and Bonds

These new AIA forms combine the design as well as the construction contracts into one agreement. They were accepted in separate agreements in the past.

Note: The AIA documents noted above must be amended to reflect the Section 242 requirements as indicated in the following Addendum. Use of AIA Document A201, General Conditions, is not permitted with these documents.

4. OWNER'S REPRESENTATIVE

An Owner's Representative, independent of the design-builder, is required to be appointed and named in the A141 documents noted above. He/she (or the firm) shall be either a licensed architect or engineer who preferably has experience in the design and construction

of hospitals. The hospital (Owner) will enter into an Owner’s Representative agreement in a form and substance acceptable to the Office of Architecture and Engineering (OAE) in the Office of Healthcare Programs. This Owner’s Representative is responsible for reviewing the drawings and specifications, for supervising and inspecting the project’s construction and insuring compliance with the approved contract documents and to otherwise provide the services customarily provided by an Owner’s Representative.

5. DOCUMENT AND COST REVIEW

The drawings and specifications for the project must be submitted to OAE for review and approval and OAE must independently review and confirm the reasonableness of the proposed construction costs for the project. The hospital will be required to employ an independent cost estimator to provide an estimation or analysis firm or individual to review and approve construction costs proposed by the design/build firm. A copy of the cost analysis or report shall be furnished to OAE in conjunction with its review of drawings and specifications and other contract documents. However, if the design-builder utilizes 100% competitive bidding in obtaining its subcontractors or is chosen as a part of a competitive bidding process by the hospital or the Owner’s Representative, an independent cost estimation analysis at the hospital’s expense will not be required.

6. REQUIRED ADDENDUM

AIA A141 and its Exhibits must be revised as follows:

1. Article 1 must be amended to permit use of the drawings and specifications by Lender and/or HUD and to address conflicts between the Design Build Documents and HUD requirements. Add the following “In the event the Lender, the surety under the performance bond, or HUD takes control of the Project or takes responsibility for completion of the Project construction pursuant to said parties’ legal rights under the agreements concerning the Project, and notwithstanding anything to the contrary in this Agreement, the party taking control or taking responsibility for completion of construction, and any substitute contractor hired by said party, shall have the right to use the Drawings and Specifications, and other documents, including those in electronic form, prepared by Design-Builder. Such use shall be to the same extent and with the same limitations as Owner under this Agreement. In the event of conflict with any HUD statutes, regulations and documents, the HUD requirements control.”
2. Add the following 1.4, “This Agreement shall not be assigned in whole or in part to anyone, without the written consent of HUD. Neither Owner nor Design Builder shall contract with anyone currently listed by the General Services Administration as a firm that is debarred, suspended, proposed for debarment, or declared ineligible by federal agencies or by the General Accounting Office. Owner and Design-Builder shall each require from their contractors, consultants and agents similar agreements prohibiting contracts with such persons or entities.”
3. Article 4- The Contract Sum must be fixed and must be based upon a fixed scope of work when it comes into OAE for review and approval for an FHA-242 commitment. Therefore only a “Stipulated Sum” or a “Cost of the Work Plus Design-Builder’s Fee

with a Guaranteed Maximum Price” format may be utilized. Delete the “Cost of Work Plus Design-Builder’s Fee as an option. All alternates must be decided upon by the Owner before OAE can recommend the project proceed to commitment because a firm fixed price is needed.

4. Article 4.4.3.1- The Design-Builder may not participate in use of any savings remaining at the end of the job in a DB GMP format. Delete reference to that option. Any savings at the end of a DB GMP project must revert to the Owner.
5. HUD Form 92554 – Supplementary Conditions must be included as part of the construction contract. Appropriate minimum Construction Federal Wage Rates must be included in the construction contract. Wage rates in effect at the time of the Initial Endorsement of the mortgage note for insurance by HUD or at the time of Early Start (Form 2415) is approved by HUD, whichever occurs earlier, are the required Federal minimum construction wage rates for the design build contract. In addition the contract must make provisions for all laborers and mechanics be paid not less than 1 ½ times their basic rate of pay for all hours worked in excess of eight hours in any workday or 40 hours in any work week.
6. Add the following to Article 7: “Notwithstanding any other provision or term contained in this Agreement or any Exhibit to this Agreement, in the event HUD succeeds to Owner’s interests under this Agreement, HUD shall not have any indemnification obligations under this Agreement.”
7. 100% complete construction documents must be submitted to OAE for approval before OAE can recommend a design-build project proceed to commitment.

7. RETAINAGE

The AIA A141 must reflect HUD’s retainage policy of with-holding 10% of the total completed and stored work to date each month until 50% completion of the project construction. After the 50% point, subject to the written approval of the architect, the Owner, the Lender, the Surety and OAE, no further retainage may be withheld. The final retainage will be paid at the final HUD endorsement.

8. SCHEDULE OF PAYMENTS

A schedule of payments for the design phase submissions shall be enumerated in the document. Only 80% of the total architect’s fee will be paid at the initial endorsement. The balance of the architect’s fee for construction administration will be paid out at the rate of construction completion.

9. NOTICE TO PROCEED

The date of commencement of construction shall be from the Notice to Proceed provided by the Owner to the Design-Builder as well as OAE. Duration of the work must be shown in number of calendar days.

10. LIQUIDATED DAMAGES

Liquidated damages at the rate of \$.09/\$1,000 of construction cost must be included in the design-build contract.

11. BONUSES

Bonuses are not permitted in a design-build contract.

AIA Document A141-2004, Exhibit A**12. EXHIBIT A, ARTICLE A.1.1.3.**

This article must be amended to include construction administration responsibilities by the architect of record. OAE requires the architect to be present at the jobsite when OAE makes construction inspections bimonthly and the architect needs to provide a monthly independent construction status report to OAE. The architect must inspect and sign the HUD-92448 to verify whether the construction meets all requirements of the construction documents. The construction supervisory fee must be broken out separately from the design portion of the architect's fee in the design-build contract. The architect must also certify closeout documentation at the end of the project to enable OAE to recommend proper closeout of the construction project. The design-build fee may not be an automatic percentage of the construction portion of the contract.

13. EXHIBIT A, ARTICLE A.1.2

This section must be amended to include the following to insure compliance with HUD rules and regulations. "The construction of the Project as described by the Owner in the application submission is expected to be financed by a loan from _____ as Lender through the Hospital Mortgage Insurance Program of the U.S. Department of Housing and Urban Development ("HUD") pursuant to Section 242 of the National Housing Act, and must meet all applicable federal requirements for mortgage insurance under Section 242. HUD's Office of Architecture and Engineering Services ("OAE") is responsible for the architectural and engineering matters including a review of the Design-Build Documents" as defined in herein."

14. EXHIBIT A, ARTICLE A1

Add A.1.5.4 "The provisions of AIA Document A141 shall remain in full force and effect as modified hereby. In the event of conflicts between AIA Document A141, and this Addendum, this Addendum shall be controlling. In the event of conflict with any HUD statutes, regulations and documents, the HUD requirements control."

15. EXHIBIT A, ARTICLE A2

Add to A.2.2.11, that easements during construction shall require HUD and Lender approval.

16. EXHIBIT A, ARTICLE A4.2.4

Delete reference to cash allowances in Design-Build GMP contracts.

17. EXHIBIT A, ARTICLE A.7.2 AND 7.3

These should be amended to note that Change Orders and Directives must be approved in writing by the Owner, Lender, and HUD.

18. EXHIBIT A, ARTICLE A.9.3

This article should be amended to note that Applications for Payment shall be made using HUD Form 2448, and shall be accompanied by the appropriate AIA Forms G702 and G703, and other documents substantiating the right to payment as the Owner may require. Each month after the commencement of Work hereunder, the Design-Builder shall make a monthly request on HUD-92448 for payment by Owner for Work done during the preceding month. Each request for payment shall be filed at least 25 days before the date payment is desired. Subject to the approval of Lender and HUD, the Design Builder shall be entitled to payment thereon in an amount equal to (1) the total value of classes of the Work acceptably completed; plus (2) the value of materials and equipment not incorporated in the Work, but delivered to and suitably stored at the site; plus (3) the value of components stored off-site in compliance with applicable HUD requirements; less (4) ten (10) percent holdback and less (5) prior payments.

19. EXHIBIT A, ARTICLE A.9.3.2

This article shall be amended to include the following HUD requirements for Offsite Storage: An Application for Payment may be made for up to 90 percent of the invoice value (to exclude costs of transportation and storage) of any building components stored off-site, if the components are stored at a location approved by the Lender and HUD. HUD requires the following with regard to the storage of components offsite:

- a. Each building component shall be adequately marked so as to be readily identifiable in the inventory of the off-site location. Each component shall be kept together with all other building components of the same manufacturer intended for use in the same project for which insured advances have been made and separate and apart from similar units not for use in the Project.
- b. A bill of sale for the component must be provided to the Owner.
- c. Storage costs as well as the costs of delivering or contracting for the delivery of the components to the storage area and to the construction site, including payment of freight, if any, shall be borne by the Design Builder.
- d. The building components must be insured in the name of the Owner while in transit and storage;
- e. In order for an Application for Payment for components stored offsite to be processed by Owner, the Design-Builder shall certify to HUD that the components, in their

intended use, comply with HUD-approved contract plans and specifications. At no time shall the invoice value of building components being stored off-site, for which Applications for Payment have been processed, represent more than 50 percent of the total estimated Work.

20. EXHIBIT A, ARTICLE A.9.8

This article should be amended to include the following: With its final application for payment by the Owner, the Design Builder shall disclose all unpaid obligations contracted in connection with the Work performed under this Agreement and execute and deliver to Owner a waiver or release of lien for all the Work performed and materials furnished hereunder, as well as similar waivers or releases from all subcontractors and material suppliers, if permitted by state law. Design Builder agrees that within 15 days following receipt of final payment, it shall pay such obligations in cash and furnish satisfactory evidence of such payment to Owner.

21. EXHIBIT A, ARTICLE A.9.10.1

HUD's final inspection is required as well as the Owner's.

22. EXHIBIT A, ARTICLE A.9.10.2

It is to be noted that the final retainage will be paid at the final endorsement of the mortgage note insured by HUD.

23. ARTICLE A.11.5

100% Performance and 100% Payment Bonds for the construction on HUD forms must be submitted prior to initial endorsement. The bonds must be provided by a surety acceptable to HUD, must run to Owner and Lender as obligees (as appropriate) and must be assignable to HUD in the event of a claim.

24. AIA DOCUMENT A141-2004, EXHIBIT B– B.1 – CONTROL ESTIMATE

A design-build contingency may not be carried as a separate line item for design or construction in the finally agreed upon contract submitted to OAE for commitment approval.

25. PAST PERFORMANCE

Finally, it is recommended that hospitals request letters of recommendation from the design-build firm or a list of previous projects where OHP could follow up on their past performance.

PART IV – GUIDE FOR PROJECT APPLICANTS: ENVIRONMENTAL REVIEW AND REQUIREMENTS

1. INTRODUCTION

This Part outlines, for the mortgagor, consultants, the Lender and HUD staff, the policies and procedures that the Office of Architecture and Engineering (OAE) staff must follow to meet HUD’s environmental responsibilities. The Lender must submit sufficient environmental information for the project and receive OAE’s environmental clearance prior to HUD’s issuance of a commitment. It must be noted that an environmental clearance by OAE is required in order to proceed with site preparation and/or pre-commitment work. Because of the number of acronyms used, a Glossary is provided at the end of this Part.

a. Legal Authorities, Handbooks, and Forms

- (1) All Federal agencies are required to comply with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) (NEPA), and the implementing procedures issued by the Council on Environmental Quality at 40 CFR Parts 1500-1508. HUD regulations implementing NEPA are contained in 24 CFR, Part 50, “Protection and Enhancement of Environmental Quality”. Related Federal laws and authorities are listed in 24 CFR 50.4 and 50.3(i). HUD may not delegate its environmental responsibilities to others; it is required to prepare the environmental assessment and make the appropriate environmental finding. (See 24 CFR 50.11.)
- (2) HUD has issued two general handbooks covering environmental issues: Handbook 1390.2, “Environmental Assessment Guide for Housing Projects”, and Handbook 1390.4 “Guide to HUD Environmental Criteria and Standards contained in 24 CFR Part 51”. Additional information can be found at <http://portal.hud.gov/hudportal/HUD?src=/topics/environment>.
- (3) HUD has established an environmental HUD-4128 form, “Environmental Assessment and Compliance Finding for the Related Laws,” that documents compliance with NEPA and other environmental Federal laws, authorities, Executive Orders, and HUD standards. The HUD-4128, with attached Sample Field Notes Checklist (SFNC) may be retrieved electronically from HUDClips¹. OAE staff will use the SFNC to provide information supporting the conclusions listed on the HUD-4128.
- (4) HUD’s requirements in this chapter may exceed those of many State agencies. One reason for this is, if a mortgagor defaults on an FHA-insured project, HUD may become the project owner. Under Section 120(h) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Federal agencies that own properties are required to take “all remedial action necessary to

¹ http://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/hudclips

protect human health and the environment” with respect to known hazardous substances upon disposition of the property. This requirement is beyond any liability releases under State or Federal law and any due diligence requirements under CERCLA.

b. Local, State, Tribal or Federal (LSTF) Laws

- (1) In cases where state or local laws, tribal laws, ordinances, codes or regulations are more restrictive than Federal requirements, the applicant must comply with the stricter local or state standard unless Federal law states otherwise. An Application for Firm Commitment does not relieve an owner of responsibility for compliance with state or local requirements.
- (2) HUD will not assume any responsibility with respect to inspection, enforcement, interpretation or determination of compliance with such state or local requirements.
- (3) Where the project is located on a Native American reservation, the tribal authority may have the responsibilities of the state or local environmental protection agencies. In the Contamination Analysis, the acronym LSTF refers to “local, state, tribal or federal”.
- (4) The above is not a substitute for requirements in the federal, state or local laws, regulations, and Executive Orders regarding environmental analysis and mitigation.

2. PROCEDURES

a. Lender’s Responsibilities

- (1) The Lender must provide a Phase I Environmental Site Assessment (ESA), and if applicable, a Phase II ESA and Remediation Plan. The Lender must also provide an Environmental Report to HUD, which will identify any significant environmental issues to be resolved, and will help HUD staff in the preparation of the HUD-4128 and the Sample Field Notes Checklist (SFNC). The Lender should not fill out the HUD-4128 and should not fill out the SFNC. However, the Lender should use the criteria included in the SFNC as a format for the information to be provided in the Environmental Report. The Lender must also provide an Asbestos Report, when applicable.
- (2) HUD environmental policy requires that there be a limitation of certain activities or actions by any direct or indirect parties to a transaction from the time of initial contact with HUD, whether it is a request for early commencement of work, pre-application or application submission, until HUD has completed the environmental review process. Specifically, no action concerning the proposal shall be taken which would: (1) have an adverse environmental impact; (2) limit the choice of reasonable alternatives, or (3) prejudice the ultimate decision on the proposal. Certain actions do not fall within such limitations, such as development of plans or designs or performance of other work necessary to support an application for

Federal, State or local permits. Other actions do fall within such limitations, such as acquisition, demolition, modification of a wetland or significantly adversely affecting a historic property.

Furthermore, pursuant to the “anticipatory demolition” requirements of Section 110(k) of the National Historic Preservation Act (16 U.S.C. 470h-2(k)), with guidance provided by the Secretary of Interior at 63 FR 20496, even before a request for early commencement of work, pre-application or application submission takes place, any action by a potential Lender or Borrower, or any action by another party that the Lender or Borrower has the legal power to prevent, that is taken with the intent to avoid Section 106 review and that significantly adversely affects a historic property (see Section IV.5.b.1), could result in eventual rejection of an application.

If any party is unsure as to whether an action would fall within the above limitations, it should seek advice and possibly approval by HUD. These requirements are distinct and separate from any early start of contractually related construction activities.

b. HUD Staff Responsibilities

- (1) In accordance with 24 CFR 50.32, HUD, not the Lender, is responsible for performing the environmental review as reported on the HUD-4128 and SFNC and determining that there are no environmental factors that are prohibited by law, Executive Order, or regulation, or which would endanger health or safety, or would put FHA mortgage insurance or the U.S. Government at financial risk or liability.
- (2) HUD staff must review the Phase I ESA and Environmental Report submitted by the Lender and must make a site visit. The site visit will help validate part of the information provided on the Phase I ESA and Environmental Report, and is useful for evaluating other environmental factors. A member of the OAE team will make the site visit and sign-off on the HUD-4128 and SFNC. The OAE Director is responsible for signing the HUD-4128.
- (3) As part of its environmental review responsibilities, HUD may require additional environmental material from a Lender, such as a Phase II ESA, even when the Lender might not believe that such additional environmental material is necessary.
- (4) Environmental conditions should be identified as soon as possible in the processing, preferably at the time of the pre-application. Resolution of the issues should be reached prior to submission of an Application for Firm Commitment. Any requirements that affect project design will be fully detailed. The Lender must assure that any requirements affecting project design are conveyed to the design architect for incorporation into the contract drawings and specifications.
- (5) HUD staff shall promptly notify the Lender that it will take appropriate action to insure that the objectives and procedures of HUD environmental policy are

achieved if it becomes aware that an action subject to limitation has taken place or may be about to take place.

c. When to Submit Required Exhibits to Resolve Environmental Issues

- (1) For Lenders that use the pre-application process for new construction or substantial rehabilitation proposals, rather than going directly to Firm Commitment submission, HUD requires various submissions regarding contamination pursuant to Section IV.3 and the Environmental Report pursuant to Section IV.4 so that HUD can determine that all environmental issues can be resolved at the Firm Commitment processing stage. The purpose of asking for certain documents at the pre-application stage is to help make an early evaluation of any environmental issues to be resolved. It does not mean that all the documentation required for environmental review need be submitted at the pre-application stage. Important issues should be resolved at the pre-application stage, with documentation on the issues submitted with the Application for a Firm Commitment. The letter of invitation will condition the issuance of a Firm Commitment upon a finding on the HUD-4128 that there are no unresolved environmental concerns.
- (2) The implementation of plans which provide a remedy to environmental conditions may, with HUD approval, continue throughout the construction period. The Lender must identify any plan for the cure of any environmental problems which will not be solved by the time the Application for a Firm Commitment is submitted. HUD will review the Lender's plan and, if it is acceptable, will make the plan a condition in the Firm Commitment, including any plans for remediation of soil contamination, wetlands mitigation, noise abatement, historic preservation, and/or floodplains map revisions.
- (3) Removal or containment of lead-based paint or asbestos may continue beyond Initial and Final Endorsement if HUD approves.

d. Qualifications of Professionals

- (1) The sponsor will generally select the professionals who prepare the Environmental Report, the Phase I ESA, or any other environmental information required by HUD, but the Lender should verify that the professionals used are qualified for their assigned responsibilities. The Environmental Professional preparing the Phase I ESA must meet all of the qualification requirements of Appendix X2 of ASTM E1527-05 and must meet the license/certification, education, and experience requirements of Section X.2.1.1(2)(i), (ii), or (iii), of Appendix X2 of ASTM E1527-05. The environmental professional must describe how she/he meets these qualifications in the Qualification(s) of Environmental Professional(s) Section of the Phase I ESA. For "relevant experience", such discussion must be specific as to how the requirements of Section X.2.2 of Appendix X2 of ASTM E1527-05 have been met. The Phase I ESA must clearly indicate that HUD is an authorized user of the report. An example of an insufficient discussion of relevant experience would be stating that he/she performed sample analyses in a laboratory along with writing

associated reports, unless such discussion indicated an “understanding of surface and subsurface conditions” and the “development of opinions regarding conditions indicative of releases or threatened releases.”

- (2) For a Phase II ESA the “Phase II Assessor” must meet all of the qualification requirements of Section 3.1.33 of ASTM E1903-11.
- (3) Other professionals may be required to evaluate technical areas, including asbestos and other various parts of the Environmental Report such as flooding or soil stability conditions. The Lender should assure itself that these technicians are qualified and, when these professionals are required, the Lender may contract for the services, if the sponsor has not done so.

e. Consulting with the Office of Architecture and Engineering (OAE)

Lenders should consult early with OAE staff on HUD environmental requirements as local conditions and interagency relations affecting environmental review requirements differ from State to State. For instance, coastal zone management requirements are not applicable in most states, but in states where they are applicable, compliance procedures differ. In some states, a letter from the state coastal zone management agency for projects in the coastal zone is required but in others, alternative review procedures make this unnecessary.

3. CONTAMINATION ANALYSIS: PHASE I AND PHASE II ENVIRONMENTAL SITE ASSESSMENTS AND REMEDIATION

a. Purpose of this section

The purpose of this section is to identify any man-made contamination on a site, other than contamination from in-place building components such as asbestos containing materials and to ensure that any contamination so identified is mitigated to the point where it would be unlikely to “affect the health and safety of occupants or conflict with the intended utilization of the property” as stated in HUD-wide policy at 24 CFR 50.3(i)(1).

b. Phase I Environmental Site Assessment (ESA)

- (1) Submission. The Lender must submit a complete Phase I ESA with the pre-application or, if the pre-application stage is omitted, with the application for Firm Commitment. A summary submission is not acceptable. The Lender must inform the ESA preparer of all of the Phase I ESA requirements described in the following paragraphs.
- (2) Purpose. The Phase I ESA will make an initial determination as to the presence of “hazardous substances” as defined by CERCLA, and of petroleum and petroleum products. However, HUD requires an initial determination not for CERCLA purposes, but rather as a part of the Department’s overall environmental responsibilities pursuant to 24 CFR 50.3(i). This purpose must be described in the “Purpose” subsection to the required “Introduction” Section of the Phase I ESA.

- (3) **Format.** The Phase I ESA must be prepared in accordance with the requirements of ASTM E1527-05 “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process” using the table of contents and report format specified in Appendix X4, thereto.
- (4) **Timing.** The Phase I ESA must be conducted within one year of the submission to HUD (meaning the earliest of the date of the site visit, records review or interviews). A Phase I ESA that was conducted more than 180 days prior to the submission date to HUD, but within the allowable one-year period, must be updated pursuant to Section 4.6 of ASTM E1527-05.

A Phase I ESA prepared more than one year prior to submission to HUD, even if updated within 180 days of being submitted, is not acceptable.

- (5) **Preparer’s Qualifications.** The Qualifications of the environmental professionals section of the Phase I ESA must describe the preparer’s qualifications.
- (6) **Findings Section.** The Findings section of the Phase I ESA must list obvious Recognized Environmental Conditions (REC), suspected or potential RECs as determined from statements made in earlier sections in the Phase I ESA, Historical Recognized Environmental Conditions (HREC) and de minimis conditions (such as minor soil staining). The Findings Section must also list Vapor Encroachment Conditions (VECs), likely VECs, and circumstances in which VECs cannot be ruled out.
- (7) **Opinions Section.** The Opinions Section must discuss each finding from the Findings Section and whether it is a REC pursuant to Section 12.6 of ASTM E1527-05. The justification for any finding deemed not to be a REC must be included in the Opinions section. If the ESA preparer cannot make a statement as to whether a condition is or is not a REC, the Opinion Section must state what information or further investigation – such as gaining access to a building, a so called “data gap,” but not including a Phase II ESA – would be deemed necessary to make such a determination. When previous remediation has been performed or is ongoing - i.e., not yet an HREC at the proposed site, the Phase I ESA must fully discuss the extent of such remediation in this section of the Phase I ESA, including any involvement of LSTF Authorities (Local, State, Tribal and Federal Authorities). The Phase I preparer must justify whether such ongoing remediation should resolve any RECs or undecided issues identified in the ESA. **Warning:** Even if the Environmental Professional preparing the Phase I ESA determines that a finding does not rise to the level of a REC, HUD may nevertheless determine that there is a REC.
- (8) **Conclusions Section.** The Conclusions Section pursuant to Section 12.8 of ASTM E1527-05 regarding a determination of a REC must include one of the two quoted statements therein.
- (9) **User Provided Information Section.** The borrower, or the current property owner (if different from the borrower), shall complete the User Questionnaire(s) as per Appendix X3 of ASTM E1527-05 which must be included in the “User Provided

Information Section” of the Phase I ESA and the preparer must take into account any information provided in the preparation of the Phase I ESA.

- (10) **Testing Not Required.** The Phase I ESA does not require sampling and testing, which will be performed during the course of a Phase II ESA or as part of a remediation plan (see below). However it may reference and discuss a prior Phase II ESA performed in general accordance with ASTM E1903-11, including whether a condition is a REC.
- (11) **Vapor Encroachment Screen.** The Phase I ESA must incorporate an initial vapor (a.k.a. gas) encroachment screen to determine if there is a potential for vapors to occur in the subsurface below existing and/or proposed on-site structures. Those hazardous substances may be petroleum and petroleum products that consist of volatile organic compounds (VOC), semi-volatile organic compounds (SVOC) and inorganic volatile compounds. The initial vapor encroachment screen amendment to the Phase I ESA shall be performed using Tier 1 “non-invasive” screening pursuant to ASTM E2600-10 “Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions,” Section 8. If the Tier 1 vapor encroachment screen determines that, as indicated in ASTM E2600-10, Section 8.7.1, there is a “vapor encroachment condition (VEC), which is the presence or likely presence” of such vapors in the subsurface below existing and/or proposed on-site structures, a likely VEC, or that a VEC “cannot be ruled out”, it must be deemed to be a REC for purposes of the Phase I ESA. Analyses regarding the VECs must be integrated within the body of the various sections of the Phase I ESA rather than analyzed solely in the regulatory records documentation.
- (12) **Lead-based Paint (LBP) Chips.** LBP chips that are not inside or part of a structure may be deemed to be a hazardous substance under CERCLA. Therefore, if there is or was a structure on the site that was built prior to 1978, any evidence of paint chips not inside or part of any current structures must be discussed in the “Site Reconnaissance” section of the Phase I ESA, must be listed in the Findings Section, and must be discussed further as to whether the paint chips are either a REC or a de minimis condition in the Opinions section.
- (13) **Previous Remediation.** When previous remediation has been performed, or remediation is currently taking place, the Phase I ESA must fully document such remediation, including any involvement from LSTF Authorities.
- (14) **Evaluation of the ESA.** The Phase I ESA will be evaluated by HUD to determine if the property is acceptable for the hazards reviewed. If it is unacceptable because it shows an identifiable hazard, i.e. a REC, as described in ASTM E1527-05, and no corrective action is deemed feasible, HUD may reject the property.

c. Phase II Environmental Site Assessment (ESA)

- (1) **Purpose.** The purpose of the Phase II ESA is to ascertain by chemical testing of samples and within the requirements of ASTM E1903-11, “Environmental Site Assessments: Phase II Environmental Site Assessment Process”, whether the RECs identified in the Phase I ESA have resulted in the presence of “hazardous

substances” as defined by CERCLA, and of petroleum and petroleum products at levels that would exceed the Statewide, non-site specific criteria (de minimis levels).

- (2) Timing. The Phase II ESA shall be submitted at the same time as the Phase I ESA.
- (3) When Required. A Phase II ESA is required if:
 - (a) The Phase I ESA indicates that there is a REC and corrective action is potentially feasible,
 - (b) The Phase I ESA comes to no definite conclusion regarding the presence of a REC, or
 - (c) HUD requires a Phase II ESA for reasons that are described to the Lender.
- (4) Exception to Submission Requirement. In some cases where it is obvious that remediation will be required, with HUD permission, a separate Phase II ESA may be bypassed and instead incorporated within the “site characterization” segment of the remediation plan.
- (5) Standards to Use. The Phase II ESA is to be performed pursuant to the logic model of ASTM E1903-11, Section 7, such as developing the conceptual model and validation.
- (6) Report Format. The Phase II ESA must be prepared in accordance with the requirements of ASTM E1903-11 using the table of contents and report format specified in Appendix X3.2 as amended by X3.3. Some of the steps that a Phase II assessor might perform may be intuitive in nature, but they nevertheless must be included in the report so as to ensure its scientific validity.
- (7) HREC. If the Phase I ESA indicates that there is a HREC, as described in ASTM E1527-05, i.e., a hazard has been remedied and an LSTF Authority has issued a No Further Action (NFA) letter or similar approval, HUD may either deem the NFA as completion of the remediation or it may require a Phase II ESA and/or further remediation.
- (8) Nature and Extent of the Study. The Phase II ESA need not necessarily be a complete site characterization (total nature and distribution) of contamination, but must proceed to a point where it indicates the location of greatest concentration and risk. However, when the existence of elevated levels of contaminants is confirmed, a complete site characterization will be required as a first step in remediation per Section 1.3.C.1 below.
- (9) Vapor Encroachment/Vapor Intrusion. If it is determined that there is a potential for vapors to occur in the subsurface below existing and/or proposed on-site structures either identified from the Phase I ESA as a REC or from this or a prior Phase II ESA, the Phase II ESA shall include either a Tier 2 vapor encroachment screen (per ASTM E2600-10, Section 9, a vapor intrusion assessment (VIA) pursuant to LSTF policy and/or procedure (as discussed in ASTM E2600- 10, Appendix X7.1), or go directly to a Tier 4 “mitigation” (per ASTM E2600-10, Appendix X7.1 or 7.2).
 - (a) If a Tier 2 screen was performed and it determined that there was a VEC, a likely VEC, or that a VEC could not be ruled out, either a vapor intrusion

assessment (VIA) pursuant to LSTF policy and/or procedure or Tier 4 “mitigation” (per ASTM E2600-10, Appendix X7.1 or 7.2) is required.

- (b) If a VIA was performed, any mitigation (or remediation) deemed necessary must follow LSTF policy and/or procedure.
- (10) Phase II Conclusion. The Phase II ESA must conclude that:
- (a) There are “hazardous substances” as defined by CERCLA, and/or of petroleum, and/or petroleum products at levels that exceed the Statewide, non-site specific criteria and list any chemicals so found, or
 - (b) No hazardous substances, petroleum or petroleum products have been identified above de minimis levels.
- (11) Off-site contamination conclusion. The Phase II ESA must indicate whether there is a risk of off-site contamination migrating on to the proposed site including if:
- (a) There is no known or perceived off-site contamination in the vicinity of the proposed site.
 - (b) It is unlikely that any known or perceived off-site contamination will migrate on to the site.
 - (c) It is likely that known or perceived off-site contamination will migrate on to the site.
- (12) The Phase II ESA written report must describe how it conforms to any applicable LSTF requirements and must include a detailed, common language summary.
- (13) Exception of requirement for Phase II preparation and submission for ongoing remediation. A Phase II ESA is not required when remediation is ongoing to the point of not yet being an HREC, if the Phase I ESA preparer states that such remediation should resolve any RECs and undecided Phase I ESA issues, and if the remediation plan preparer indicates that all of the Phase II ESA requirements have been met.

d. Remediation Plans - General

Remediation plans are required if the Phase II ESA cannot make the determinations at Sections IV.3.c.10.b, and IV.3.c.11.a or IV.3.c.11.b. The following requirements apply to all remediation plans:

- (1) Complete site characterization.
 - (a) Any time a site has been identified from a Phase I or Phase II ESA as having contamination (or contamination exposure pathways), be it vapor (gas), liquid, solid, dissolved, or non-aqueous phase liquid (NAPL), above de minimis levels, a complete site characterization (sometimes known as special site assessment report, a detailed Phase II ESA, or a Phase III ESA) must be prepared as the initial step of any remediation plan.
 - (b) It must determine the total nature and distribution of such contamination, exposure pathways, and potential receptors (a.k.a., a conceptual site model).

However, if the remediation plan preparer determines that the Phase II ESA preparer has already determined the total nature and distribution of such contamination, exposure pathways and potential receptors, then such determination shall be so indicated and the Phase II ESA shall be made a part of the remediation plan.

- (c) It must be based on the appropriate combination of the following ASTM Practices and Guides, as amended, as determined by the remediator’s environmental investigator. Lesser degrees of site assessments or non-conformance are not acceptable. For lead contaminated sites, refer to the listed EPA Handbook.
 - i. D6235-04, “Practice for Expedited Site Characterization of Vadose Zone and Groundwater Contamination at Hazardous Waste Contaminated Sites”
 - ii. E1689-95 “Standard Guide for developing Conceptual site models for Contaminated Sites”
 - iii. E1903-11, “Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process”
 - iv. E1912-98, “Standard Guide for Accelerated Site Characterization for Confirmed or Suspected Petroleum Releases”
 - v. EPA, Superfund Lead-Contaminated Residential Sites Handbook, 2003
 - (d) It must discuss how it complies with the listed Practices or Guides and/or the appropriate LSTF procedures.
 - (e) It must indicate how it meets the requirements of any applicable LSTF regulatory procedures.
- (2) Any remediation studies and plans must be in the form of a report which includes a detailed, common language summary and discusses how it meets the listed Practices or Guides and/or the appropriate LSTF procedures.
 - (3) Any remediation studies and plans must be presented to HUD at the same time as the Phase I ESA and, if applicable, the Phase II ESA.
 - (4) Evidence of approval of the remediation plan by the LSTF authority must be submitted with the Application for Firm Commitment.
 - (5) The remediation plan preparer’s qualifications must be discussed in any remediation reports.
 - (6) The remediation plan must cover all relevant contaminant phases: vapor (gas), liquid, solid, dissolved, and NAPL.
 - (7) The remediation plan must require either the removal of the contamination (bring the contamination to de minimis levels) pursuant to Section IV.3.e or incomplete removal of contamination in the form of a Risk-Based Corrective Action pursuant to Section IV.3.f.
 - (8) If HUD determines that it is uncertain whether implementation of the remediation plan will meet the requirements of either Sections IV.3.e or IV.3.f, the remedial work must be completed, including clearance testing, and the remediation itself must

be approved, including issuance of any clearance and closure documents, by the LSTF authority prior to issuance of the Firm Commitment.

- (9) If the extent and cost of removing the contamination can be definitively determined, and the cost of removing that contamination can be specified pursuant to a contract for remediation, HUD may allow a remediation plan that has been approved by the LSTF authority that:
 - (a) Permits the remediation including site testing, any clearance and closure documents, and the approval by the LSTF, prior to Initial Endorsement, or
 - (b) If the applicant can show why it would be impractical to complete remediation prior to Initial Endorsement, permit the remediation including site testing, any clearance and closure documents, and the approval by the LSTF, prior to Final Endorsement and initial occupancy.
- (8) All staff and patients living regularly and construction workers working regularly on site while remediation is taking place shall be informed of the remediation activities and protected from any potential contamination. This requirement must be a part of the remediation plan.
- (9) Remediation contract insurance. Unless HUD determines otherwise, the remediation contract shall require cost cap and reopener insurance coverages, copies of which are to be included in the remediation plan.
- (10) Ongoing Remediation. If remediation is taking place or has been completed but has yet to receive approval by the LSTF at the time of submission of the Phase I ESA, the remediation plan and all remediation studies shall be submitted, along with a detailed common language summary, at the same time as the Phase I ESA.

e. Remediation Plans – Complete Removal of Contamination

1. Except for situations where remediation plans allowing for incomplete removal of site contamination (Section IV.3.f) apply, the Lender must submit a remediation plan designed to bring the contamination identified by a complete site characterization to de minimis levels or eliminated to the extent necessary to meet the LSTF authority standards, with no ongoing active or passive remediation. There must not be any need for engineering controls, institutional controls, or monitoring wells. All of the requirements for Section IV.3.d must be met.

f. Remediation Plans – Incomplete Removal of Contamination

- (1) If the costs are deemed to be exorbitant and/or the feasibility deemed impractical for remediation of on-site contamination to de minimis levels, or if there is known or expected offsite contamination that poses a risk to the project site, the remediation plan may allow for incomplete removal, as described below. Justification for such incomplete removal must be submitted along with the remediation plan and must include documentation that shows that the cost of the incomplete removal of contamination, including any life cycle costs for Operation and Maintenance and any applicable enforcement requirements of LSTF authorities, are sufficiently below the costs of complete contamination removal, per Section IV.3.e above.

- (2) All of the requirements of Section IV.3.d must be met. The corrective action must be a Risk Based Corrective Action (RBCA) based on the appropriate combination of:
- (a) The following ASTM Guides and Practices, as determined by the remediator’s environmental investigator (for lead contaminated sites, refer to the listed EPA Handbook):
 - i. E1689-95 “Standard Guide for Developing Conceptual Site Models for Contaminated Sites”
 - ii. E1739- 95, “Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites”
 - iii. E1943-98, “Standard Guide for Remediation of Ground Water by Natural Attenuation at Petroleum Release Sites”
 - iv. E2081-00, “Standard Guide for Risk-Based Corrective Action”
 - v. E2091-05, “Standard Guide for Use of Activity and Use Limitations, Including Institutional and Engineering Controls”
 - vi. E2435-05, Standard Guide for Application of Engineering Controls to Facilitate Use or Redevelopment of Chemical-Affected Properties”
 - vii. WK16004, “Draft Standard Guide for Risk-Based Remedy Selection” (when issued)
 - viii. E2600-10 “Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions.”
 - ix. For Lead Contaminated Sites. EPA, “Superfund Lead-Contaminated Residential Sites Handbook,” 2003.
 - (b) LSTF regulatory procedures may be followed in lieu of the ASTM Guides and Practices, as listed above, when the remediator’s environmental investigator determines they are equivalent to the ASTM standards or of greater stringency.
- (3) The RBCA must always meet the requirements of any LSTF regulatory authority.
- (4) The RBCA report(s) must discuss how the remediation plan complies with the applicable ASTM Guides and Practices and/ or LSTF regulatory procedures. The corrective action must be an RBCA supported by the applicable combination of Engineering and Institutional Controls (EC/IC).
- (a) An appropriate mix of engineering controls such as capping and slurry walls, and institutional controls such as protective covenants and access restrictions are usually required for all RBCAs, shall follow the guidance in ASTMs E2435-05 and E2091-05 and must indicate how it met these Guides. LSTF regulatory provisions may be followed in lieu of these ASTM Guides, as amended when the remediator’s environmental professional determines their equivalence.
 - (b) Operations and Maintenance Plan (O&M) Plan. Any time there is an EC/IC there must be an O&M plan which itself is an IC. The O&M plan must be approved by the LSTF authority, and must discuss any associated enforcement

required by LSTF authorities. An O&M plan must be in place for management of all contamination remaining on the site and any controls thereof. If HUD determines that the mortgagor does not have sufficient capacity to manage the O&M plan, the mortgagor must contract an appropriate servicer to do so.

- (c) **Hard/Soft Cap Engineering Control.** A hard cap EC, such as concrete, generally is required if any contamination will remain on the site after Final Endorsement. Unless the applicant can justify why a lesser depth to contamination would be protective of the health and safety of occupants, the depth of any remaining contamination should be greater than:

- the depth of the foundations of any existing or proposed structures including sumps,
- the depth of any existing or proposed utilities on site, and
- five feet below the surface.

In certain situations, HUD may allow for a soft cap (e.g. dirt) if other engineering controls such as an impenetrable geotextile fabric are included. Even if EC are not required for such RBCAs, IC is still required.

- (d) **Slurry Wall or Equivalent Engineering Control.** A slurry wall or equivalent type EC may be required to prevent offsite contamination from migrating onsite or to prevent onsite contamination from migrating onsite or offsite. If the Phase I and/or Phase II ESA determines that the likely existence of off-site contamination presents a risk to the site, such a slurry wall or equivalent type EC will be required.
- (e) **Monitored Natural Attenuation and Enhanced Passive Remediation (MNA/EPR).** MNA/EPR and passive engineering controls such as a slurry wall may be allowed as part of the RBCA. In such cases, the LSTF authority must issue a conditional No Further Action Letter or similar approval. Monitoring wells pursuant to the above RBCAs and meeting the requirements of Section 1.3.F will be required to monitor the progress of the remediation. When MNA/EPR is part of the RBCA, the remediation may continue beyond Initial Endorsement provided that the LSTF authority has determined in writing that such undertakings would present no threat to health, safety or the environment.
- (f) **Vapor Encroachment/Vapor Intrusion Mitigation.** If a VEC is present, a VEC is likely present, or a VEC cannot be ruled out, then mitigation as discussed in ASTM E2600-10, Section 7.2 is required, unless a VIA has been performed pursuant to LSTF policy and/or procedure and in accordance with ASTM E2600-10, Appendix X7.1 and has determined that it is in compliance with such policy or would be in compliance after instituting mitigation. When remediation goes directly from a Tier 1 screen or a Tier 2 screen, such controls shall, where feasible, consist of a poured-on vapor barrier to be used in conjunction with active and passive venting systems.
- (g) **IC regarding groundwater contamination, if applicable, must be put in place.**

- (5) No Further Action Letter (NFA). The LSTF authority must issue an NFA, or similar approval, except that a conditional NFA may be allowed pursuant to MNA/EPR and must be issued pursuant to the time lines as required by Section IV.3.d, above. Additionally, the LSTF authority must indicate that the remediation that has taken place or will take place is protective of health, safety and the environment.
- (6) Groundwater Requirement. A site is or will be otherwise acceptable if contamination exists in the groundwater after completion of remediation, if:
 - (a) IC regarding the groundwater is/will be put in place, along with an O&M plan, approval by the LSTF authority, and any applicable enforcement requirements of LSTF authorities. The ICs must prohibit any and all uses of the groundwater;
 - (b) The highest anticipated levels of groundwater based on high groundwater and/or 100 year flooding events, are below the levels of any construction or potentially anticipated utility work unless it can be shown how such high groundwater levels will not modify the nature and distribution of contamination to such a degree that it could affect the health and safety of residents and workers; and
 - (c) Any vapors from groundwater and/or soils are shown not to present a significant risk pursuant Tier 1 vapor encroachment assessment, Tier 2 vapor encroachment assessment, VIA, or mitigation.
- (7) Safety of and Disclosure to Residents and Workers. Any time contamination above de minimis levels is allowed to remain on site after initial occupancy and final closing, all maintenance workers who might perform activities that could compromise the EC/IC, construction workers, and building occupants etc. are to be informed of the general nature and distribution of contamination and the protective measures that have been taken. It would be up to staff to inform any of their visitors/patients of these conditions.
- (8) Hazardous Substance Quantification. If any RBCA remediation plan identifies hazardous substances (listed in 40 CFR 302.4) that will remain on the property after Final Endorsement, such plan shall determine the quantity of such hazardous substances and whether it exceeds the levels indicated at 40 CFR 373.2. (This is a requirement under CERCLA that would apply to HUD at any time that HUD might own the property or take over its management.)

g. Monitoring Wells, Flushing Wells, or Testing Wells

- (1) General Requirements. The presence of a testing or monitoring well on the property does not bar the property from consideration for mortgage insurance. If a monitoring well is required to confirm that contaminants have been removed to intended levels or that an MNA/EPR is working properly, EC/IC will be required until such time as contaminants are reduced to de minimis levels and a Final NFA letter is issued.
- (2) Monitoring Well Protocols. Monitoring protocols must be specified in the RBCA and monitoring must proceed until contaminants have been removed to intended levels or that passive MNA/EPR is working properly.

- (3) Off-site Contamination – Acceptability. If a monitoring well is required to determine if existing or assumed off-site contamination has migrated or might migrate on-site, the site is generally not acceptable unless associated EC/IC are put in place pursuant to a RBCA or unless the LSTF authority provides a statement that such off-site contamination would not present a risk to the health of the project’s occupants if it were to migrate on-site.
- (4) Flushing Wells – Unacceptable. In no case may Final Endorsement/initial occupancy take place when a flushing well is in operation or will be required.
- (5) Testing or Monitoring Wells Ordered by LSTF. A testing or monitoring well may also be placed on the property by order of the LSTF to test or monitor contamination on the site or from a neighboring site. If a monitoring well would be required or exists solely to monitor the general health of an aquifer used as a water supply or potential water supply, but not in relation to an existing or potential hazardous condition, this is not a bar to environmental approval. However, the Lender must notify HUD if there is any current or intended placement of a monitoring or testing well.
- (6) Non-operating Wells. Non-operating wells are not a bar to environmental approval, but must be capped over and closed out pursuant to the appropriate LSTF authority.

h. Off-site Contamination

If the Phase I and/or Phase II ESA determine that the existence of off-site contamination presents a risk to the site or the residents of the project and the sponsor has no control over the off-site locations of the contamination, the site is not acceptable unless such off-site contamination is subject to a RBCA meeting all of the requirements of Sections IV.3.d and IV.3.f.

i. Escrow

An escrow account must be set up and held by the Lender for the maintenance of any monitoring wells and engineering controls, such as caps or slurry walls.

j. Waivers

If OAE intends to waive any of the requirements in this Section IV.3 that are not regulatory in nature, the advice of the Departmental and/or Housing Environmental Officer or one of the Field Office Environmental Officers should be obtained before the waiver is granted to ensure that such waiver is in compliance with the environmental requirements of 24 CFR 50.3(i).

k. LSTF Approvals and Reviews

Any approvals by an LSTF authority must be given directly by that authority and may not be given by a third party approved by that authority to act in lieu of the authority itself. Approvals by local authorities are only acceptable when such authority is acting under delegation from the State.

l. Unacceptable Sites

A site over a former solid waste landfill/dump and/or Superfund (National Priorities List (NPL)) site generally is not acceptable for development unless the hazardous substances, petroleum, and petroleum products are completely removed, the site is delisted, or for an NPL site only, the Federal Agency with management authority over the site gives approval of the site for residential usage.

m. Insurance/Guarantee Requirements

Borrowers are required to obtain separate insurance for environmental hazards from an insurer acceptable to HUD if remediation work will be done on the site during the insured loan period, if the coverage is available. Environmental hazard insurance typically covers liability and cost of completion.

The environmental remediation contractor will almost always be different from the project's general contractor. Aside from the contractor qualifications, licensure and bonding that are addressed above, the remediation contractor must provide HUD a separate guarantee of completion for their work on a form prescribed by HUD.

4. ENVIRONMENTAL REPORT

- a. In addition to the submission requirements discussed above, the Lender must provide a narrative Environmental Report along with any available supporting documentation for the project. The Environmental Report should be separate from the Phase I ESA. This report should cover the relevant topics in the SFNC and those issues that might affect the acceptability of the project including any issues of compliance with state environmental laws. Additionally, the following environmental issues should or must be included:
- (1) Asbestos (not covered in the SFNC) (Mandatory)
 - (2) Historic Preservation (Item 18 in the SFNC) (Mandatory)
 - (3) Floodplain Management (Item 17 in the SFNC)
 - (4) Wetlands Protection (Item 22 in the SFNC)
 - (5) Endangered Species (Item 24a in the SFNC)
 - (6) Noise Abatement (Item 19 in the SFNC)
 - (7) Explosive/Flammable Hazards (Item 20 in the SFNC)
 - (8) Coastal Barrier Resources (Item 16, SFNC)
 - (9) Coastal Zone Management (Item 10, SFNC)
 - (10) Sole Source Aquifers (Item 24b of the SFNC)
 - (11) Airport Clear Zones (Item 21 of the SFNC)
 - (12) Environmental Justice (Item 24e of the SFNC)
 - (13) Other Federal or State Laws (Item 24 of the SFNC)
 - (14) Additional Hazards and Nuisances (covers pipelines, etc.) (Items 27 and 28 of the SFNC)
- b. The issues discussed in detail below must be analyzed by HUD OAE staff during their preparation of the HUD-4128 and SFNC to provide guidance by which the Lender can

assist HUD. These brief descriptions are not substitutes for the requirements in the statutes, regulations, Executive Orders, and handbooks. Note that Item 23 “Toxic Chemicals and Radioactive Materials” of both the SFNC and the HUD-4128 should be included in the Phase I ESA discussed above.

c. Asbestos

- (1) While many uses of asbestos are technically allowed today, several uses of asbestos have been banned starting in the early 1970s, and many commercial enterprises have stopped installing asbestos products as of the late 1970s. Some of the more common examples of asbestos containing materials include insulation, sprayed on finishes, such as ceilings, vinyl floor tile and the adhesive to fix the tile in place, siding, and roofing. Asbestos is not covered by the HUD-4128 or the SFNC, but for any proposed project site containing structures built before 1978, the topic must be included in the environmental report and addressed by the sponsor’s architect.
- (2) For any structures on the site built before 1978 which are to be demolished, a comprehensive building asbestos survey by a qualified asbestos inspector is required. It must be based on a thorough inspection to identify the location and condition of asbestos throughout any structures and performed pursuant to the “**pre-construction survey**” requirements of ASTM E2356-10 “Standard Practice for Comprehensive Building Asbestos Surveys”. The survey must be completed prior to HUD issuance of a Firm Commitment.
- (3) Other than for structures to be demolished per Section IV.5.d.2, on any building built before 1978, a qualified asbestos inspector must perform a comprehensive building asbestos survey based on a thorough inspection to identify the location and condition of asbestos throughout any structures pursuant to the “**baseline survey**” requirements of ASTM E2356-10 “Standard Practice for Comprehensive Building Asbestos Surveys.” The survey must be completed prior to HUD issuance of a Firm Commitment. In those cases where suspect asbestos is found, it should either be assumed to be asbestos or should require confirmatory testing. If the asbestos survey indicates the presence of asbestos or the presence of asbestos is assumed, and if the Application for Firm Commitment is approved, HUD will condition the approval on an appropriate mix of asbestos abatement and an asbestos O&M Plan.
- (4) If there is asbestos and it is friable or damaged, HUD strongly recommends that it be removed. If asbestos is not friable or damaged, HUD strongly recommends that at a minimum, it be encapsulated which would be incorporated in the O&M plan.
- (5) The cost of any asbestos abatement activities may be included in the proposed mortgage loan.
- (6) All asbestos abatement shall be done in accordance with EPA requirements for air pollution prevention pursuant to 40 CFR, subpart M especially, 40 CFR 61.145 and OSHA requirements for Worker Protection, pursuant to 29 CFR 1926.1101, and

any LSTF asbestos abatement and worker protection rules. All asbestos abatement must be performed by a qualified asbestos abatement contractor.

d. Historic Preservation (HUD-4128, Part A, No. 18)

- (1) HUD must follow the procedures implementing the National Historic Preservation Act (16 U.S.C. 470 et seq.) with regulations found at 36 CFR Part 800. All Applications for Firm Commitment, whether for new construction, rehabilitation, refinancing or conversion from non-residential to residential property, are considered “federal undertakings” which require HUD to make a determination of no effect, no adverse effect, or adverse effect upon historic properties. This is required regardless of whether the property is on vacant land, is a rehabilitation of an older property or is located in an historic district. A historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. Also, HUD must consider the area of potential effect (APE), which is often the site boundary, but occasionally the block on which the site is located or the immediate site environs.
- (2) Section 223(f) refinancing transactions that will not involve new construction or rehabilitation, nor result in any physical impacts or changes except for routine maintenance, have “no potential to cause effects” to historic properties, as described in 36 CFR 800.3(a)(1), and therefore have no further obligations under Section 106 of the Historic Preservation Act or 36 CFR Part 800. For such transactions, the applicant is not required to contact the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), and HUD staff historic preservation responsibilities are limited to documenting this determination in the HUD-4128. Routine maintenance includes activities such as cleaning, replacing broken glass, caulking, fixing gutters, and replacement of non-fixtured appliances, while physical impacts that are not routine includes activities such as replacing a doors, window, or fixtures.
- (3) To assist HUD in making its historic preservation determinations, the borrower or Lender should submit a letter to the appropriate State Historic Preservation Officer (SHPO) consisting of a narrative explaining the proposal. The letter should include a map identifying the site location, the APE, and an opinion as to whether the proposal would have any effect on historic properties. The letter and the SHPO response, if any, must be included in the Environmental Report. Lenders may obtain from the HUD office the name and address of the SHPO who has the right to comment on the proposal. Note that some SHPOs will not respond to applicants but only to Federal agencies. If this is the case, the Lender should contact the HUD OAE Office as soon as possible in the development process. The response from the SHPO need not be received by HUD prior to the Application for a Firm Commitment, but must be received by HUD before a commitment is issued.
- (4) The SHPO is allowed 30 days (from the receipt of sufficient information from HUD) to reply to requests for consultation. If there is no reply within that time, and if there is no reason to anticipate an objection to the Application for Firm

Commitment, HUD may make a determination of no effect and a commitment may be issued. Where an undertaking will affect an historic property or historic district, the result of the consultation may be a design change, research and preservation, salvage, or in rare cases, rejection of the Application for Firm Commitment. Consultation for these procedures may take considerable time before a commitment can be issued.

- (5) Pursuant to the “anticipatory demolition” requirements of Section 110(k) of the National Historic Preservation Act (16 U.S.C. 470h-2(k)), with guidance provided by the Secretary of Interior at 63 FR 20496, even before a request for early commencement of work, pre-application or application submission takes place, any action by a potential Lender or Borrower, or any action by another party that the Lender or Borrower has the legal power to prevent, that is taken with the intent to avoid Section 106 review and that significantly adversely affects a historic property could result in eventual rejection of an application.

e. Floodplain Management (HUD-4128, Part A, No. 17)

- (1) Applications for Firm Commitment are subject to regulations regarding floodplain management found at 24 CFR Part 55, which implements Executive Order 11988 (Floodplain Management). Hospital projects are considered “critical actions” as that term is defined in Part 55. The borrower should check the relevant floodplain map from FEMA. If any part of the site or integral offsite development is located within the 500-year floodplain according to the applicable FEMA map, it should be discussed with HUD at the pre-application stage.
- (2) An application for mortgage insurance shall not be approved for a property located in (a) a floodway, (b) a coastal high hazard area (generally listed as “V” zones for high velocity, on Flood Insurance Rate Maps), or (c) a FEMA identified special flood hazard area in which the community has been suspended from or does not participate in the National Flood Insurance Program. The terms “critical action,” “coastal high hazard area,” “floodway,” and “functionally dependent use” are defined in regulations at 24 CFR 55.2. 24 CFR 55.12 lists categories of proposed actions for which the floodplain management requirements in 24 CFR 55 are not applicable. As such, the floodway and coastal high hazard area prohibitions do not apply if only an incidental portion of the project site is in the 100-year floodplain, or for critical actions, the 500-year floodplain and certain conditions are met. If an incidental portion of the project site is in the in the 100-year floodplain, or for critical actions, the 500-year floodplain, the floodplain management requirements of 24 CFR Part 55 are not required if the project approval is conditioned on meeting the requirements of 24 CFR 55.12(c)(6). Furthermore, the restrictive covenant imposed in 24 CFR 55.12(c)(6)(iii) must run with the land and not be dependent on the mortgage instrument.
- (3) If a stream coursing through a proposed site is designated as being in the FEMA mapped 100-year floodplain, but there is no designated floodway area (a so-called “regulatory floodway”), development will be prohibited in the channel of the stream.

- (4) New construction in mapped 100-year floodplains is strongly discouraged. This flood buffer zone is extended to the 500-year floodplain for proposed rehabilitation, refinancing, or new construction of hospitals – a critical use. Sites for new construction, which are in the applicable floodplain according to the FEMA Flood Insurance Rate Map, Advisory Base Flood Elevation Map, Preliminary FIRM, or any of their official FEMA digitized equivalents, will not be considered for mortgage insurance unless one of the following steps will be taken:
- (a) A Conditional Letter of Map Amendment (CLOMA) or of Map Revision (CLOMR) removing the entire property from the applicable floodplain has been obtained from FEMA prior to submission of the pre-application or, in the absence of a pre-application, prior to submission of the application for Firm Commitment. If the applicant has a CLOMA or CLOMR, HUD approval for a Firm Commitment will be conditioned on the borrower: (a) meeting the requirements of the CLOMA or CLOMR; (b) obtaining a Final Letter of Map Amendment (FLOMA) or Map Revision (FLOMR) removing the entire property from the applicable floodplain prior to Final Endorsement; and, (c) obtaining flood insurance on any building during the construction period until the FLOMA or FLOMR is issued.
 - (b) If Section IV.4a does not apply, HUD must determine if there may be extraordinary circumstances which lead to the conclusion that there are no practicable alternatives to the project site being in the floodplain. In order to make this determination, HUD must conduct an 8-step decision making process that includes publishing two public notices and taking comments, as summarized in 24 CFR 55.20. In such instances, prior to issuing the first public notice, HUD will require detailed information about how the property will be altered and improvements designed. This information includes the elevation of the property, the elevation of the floodplain, and the location of life support systems. Except in circumstances where it would not be practicable, in order to minimize adverse impacts, the 8-step process shall require as a condition of any project approval that a CLOMA or CLOMR be issued prior to initial endorsement, a FLOMA or FLOMR be issued prior to Final Endorsement, and flood insurance be maintained on any building during the construction period until the issuance of the FLOMA or FLOMR. The 8-step process shall be completed before issuance of the Firm Commitment. HUD will develop the two notices, but the costs of publication will be borne by the borrower.
 - (c) The 8-step process requires that hospitals, which are “critical actions,” as defined in 24 CFR 55.2(b)(2), must comply with the requirements of 24 CFR 55.20(e).
- (4) For purchase or refinancing actions described in 24 CFR 55.12(a)(2) or repair, rehabilitation, modernization or improvement actions described in 24 CFR 55.12(a)(3), an abbreviated process pursuant to 24 CFR 55.12(a) may be used by the HUD OAE office to determine their acceptability. The Department will evaluate risks and mitigation measures in making its decision but it discourages these actions if either the lowest floor or the life support facilities, or egress and

ingress of the existing building, are more than 12 inches below the 100-year floodplain line. Where a site does not appear to be located in the floodplain on official FEMA maps, but shows evidence of flooding, HUD is not precluded from qualitatively evaluating the acceptability of the site. Lenders will be required to provide extensive data to aid HUD in evaluating previously flooded or floodplain sites.

- (5) Any building accepted that is located within a FEMA mapped special flood hazard area is required to carry flood insurance under the National Flood Insurance Program for the term of the loan, in the amount of the least of: the development or project cost less estimated land value; the outstanding principal balance of the loan, or the maximum available coverage. At the time of Application for Firm Commitment, the Lender must submit a completed Standard Flood Hazard Determination Form with proof that the new mortgagor has a commitment for flood insurance effective as of loan closing.
- (6) All new and renewal leases must contain acknowledgements signed by residents indicating that they have been advised that the property is in a floodplain and flood insurance is available for their personal property. This applies to properties within the 100-year floodplain and to critical actions within the 500-year floodplain.

f. Wetlands Protection (HUD-4128, Part A, No. 22)

- (1) Applications for Firm Commitment for new construction are subject to Executive Order 11990 “Protection of Wetlands,” which prohibits the development or disturbance of wetlands and proposals impacting wetlands unless there is no practicable alternative and the proposed action includes all practicable measures to minimize harm to the wetland. Proposals impacting wetlands must be reviewed by HUD to determine compliance with HUD wetland protection policy.
- (2) Wetlands are those identified on the National Wetland Inventory maintained by the U.S. Fish and Wildlife Service. Projects on land listed in the inventory will be considered only after HUD conducts an 8-step decision-making process which is the same as the process used for floodplains and includes consultation, issuing two public notices and taking public comment. Wetlands under local or state jurisdiction are subject to state or local review as appropriate. However, compliance with state or local requirements is not a substitute for the eight-step process.
- (3) Only in rare cases will rehabilitation, purchase and refinancing proposals be permitted to involve wetlands impacts.
- (4) The Lender must provide extensive data to aid HUD in evaluating wetland impacts and the Lender should consult early with OAE on any application for Firm Commitment on a site that impacts wetlands.

g. Endangered Species (HUD-4128, Part A, No. 24)

Under Section 7 of the Endangered Species Act, HUD must consult with the U.S. Fish and Wildlife Service (FWS) or, where applicable with the National Marine Fisheries Service (NMFS), whenever a proposal may affect an endangered or threatened species or

its habitat. A required consultation should be assumed for any site within the designated critical habitat (as defined in 50 CFR Part 226) of a listed species. The lender should review published information, including, but not limited to, information on the FWS and NMFS websites regarding the possible presence and associated critical habitats of any listed species in the vicinity of its proposal and provide HUD with the results of its research. Furthermore, if a lender believes that its proposal is in an area of potential impacts on a listed species or its critical habitat, it should discuss any possible associated impacts caused by its proposal in its submission to HUD. Lenders should not contact FWS or NMFS directly unless otherwise informed by OAE.

Note that when required, formal consultation may extend the application processing time period considerably and may result in more stringent conservation measures than would otherwise be imposed.

h. Noise (HUD-4128, Part A, No. 19)

HUD standards regarding the acceptability of noise impacts are found at 24 CFR Part 51 Subpart B, which standards must be met for new construction and conversion from nonresidential to residential projects. Where threshold criteria are met or exceeded, a noise analysis utilizing the methodology in HUD's Noise Guidebook (HUD-953-CPD) will be performed by HUD as part of HUD's NEPA environmental assessment. OAE should be consulted prior to attempting to design mitigation measures.

As a general rule, the HUD standards found at 24 CFR Part 51 Subpart B prohibit new construction in the Unacceptable Noise Zone (where outdoor noise levels are above 75 dB). To consider such a proposal, an Environmental Impact Statement (EIS) must be prepared, and project approval from the Assistant Secretary for Community Planning and Development must be obtained. However, if it is determined that noise is the only environmental issue and no outdoor noise sensitive activity will take place on the site, a waiver of the EIS requirement may be requested from the Assistant Secretary for Community Planning and Development.

For rehabilitation and refinancing, noise exposure by itself will not result in the rejection of existing properties for insurance, but will be considered as a marketability factor. For rehabilitation projects, HUD will encourage appropriate noise attenuation measures for inclusion in the property alteration.

i. Explosive/Flammable Hazards (HUD-4128, Part A, No. 20)

HUD will not insure a property where structures and residents will be exposed to unacceptable risks posed by proximity to explosive or flammable hazards. This means that for new construction projects and rehabilitation projects there must be an Acceptable Separation Distance (ASD) away from aboveground storage facilities with explosive or flammable material contents and similar industrial facilities. HUD standards regarding proximity to explosive or flammable hazards are found at 24 CFR Part 51 Subpart C. Analysis of sites near or in the vicinity of these types of facilities must be performed by HUD as part of the NEPA environmental assessment, in accordance with the HUD guidebook titled "Siting of HUD Assisted Projects Near Hazardous Facilities" (HUD-

1060-CPD)”. If a plan is agreed upon with HUD before the invitation letter, these hazards may be mitigated during the construction period, if the work can be done on the subject property. For refinance projects, HUD will substantively evaluate the risks associated with proximity to hazardous facilities.

j. Coastal Barriers (HUD-4128, Part A, No. 16)

Under the Coastal Barriers Resources Act and cited in 24 CFR 50.4(c), HUD is prohibited from insuring a project located within designated coastal barriers of the Atlantic Ocean, Gulf of Mexico, or the Great Lakes, known as Coastal Barrier Resource System (CBRS) units and shown on associated Fish and Wildlife Service maps. A project located within a CBRS unit or, that includes a facility (such as a water main) to a CBRS unit, will not be eligible for application processing.

k. Coastal Zone Management (HUD-4128, Factor 10, Planning and Findings)

Projects located within a state’s coastal management zone must be determined to be consistent with the approved state Coastal Zone Management program. In many states, HUD will require a letter from the State Coastal Zone Management Agency confirming consistency with the approved program. Mortgagees should be aware of the extent of coastal management zones in coastal states and contact the field office early when examining a proposal in a coastal zone.

l. Sole Source Aquifers (HUD-4128, Part A, No. 24)

Projects utilizing municipal water and sewer, and with appropriate local drainage and runoff approval, require no review for sole source aquifers. An aquifer is an underground body of water usually kept in place by rock, gravel, or sand. New construction and some rehabilitation projects located within the boundaries of the recharge area of a designated sole source aquifer must be reviewed by EPA for their effect on the sole source aquifer. HUD offices will identify the local, state or Federal agency with maps of sole source aquifers.

m. Runway Clear Zone, Runway Protection Zones, Clear Zone, or Accident Potential Zone (HUD-4128, Part A, No. 21)

- (1) HUD standards regarding the acceptability of property located in Runway Clear Zones (also known as Runway Protection Zones), Clear Zones, and Accident Potential Zones are found at 24 CFR Part 51 Subpart D. An Accident Potential Zone is an area at military airfields that is beyond the Clear Zone.
- (2) Construction or major rehabilitation of any property located within a Clear Zone is prohibited. Acquisition, refinance and minor rehabilitation of projects within Clear Zones are allowed with some restrictions. HUD must determine that projects located in Accident Potential Zones are generally consistent with Department of Defense land use compatibility guidelines for Accident Potential Zones.
- (3) HUD, as part of its environmental review for an existing property, shall advise the Lender who will advise the mortgagor purchasing the property that the property is in a Runway Clear Zone or Clear Zone, and what the implications of such a location

are. The buyer must sign a statement acknowledging receipt of this information. HUD may reject applications for existing properties within a Runway Clear Zone or Clear Zone because of the possibility that the property may be acquired at that later date by the airport operator.

n. Environmental Justice (HUD-4128, Part E, No.24)

HUD will determine whether Executive Order (EO) 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” is applicable to the project. This EO requires that federal actions not result in disproportionately high and adverse health or environmental effects on minority or low-income populations. When a project impacts a minority or low-income population, or when siting of a project raises questions of discrimination, HUD will perform the necessary analysis before determining the acceptability of the project. HUD will advise the Lender of any Environmental Justice concerns including recommendations on their resolution. In most cases the preferred resolution would be to modify the project to eliminate or at least reduce the adverse effects, when feasible.

o. Other Federal or State Laws (HUD-4128, Part A, No. 24)

- (1) Applications for Firm Commitment are subject to provisions of other Federal authorities which seldom require action on the part of HUD, including the Wild and Scenic Rivers Act, Farmland Protection Policy Act, and the Clean Air Act. Certain State regulations also implement air quality requirements. HUD will advise the Lender if any actions under these or other Federal or State authorities are required.
- (2) HUD may require mitigation of a variety of additional nuisances and hazards on the property which would affect the health and safety of residents and the security of the collateral.

p. Commonly Found or Observed Additional Nuisances and Hazards (HUD-4128, Part B No. 27 and 28)

- (1) All parts of any structure must be at least 10 feet from the outer boundary of the easement for any high pressure gas or liquid petroleum transportation pipeline (HUD-4128, Part B, No. 28).
- (2) No structure may be located within the easement of any overhead high voltage transmission line and must be located outside the engineered fall distance of any support structure for high voltage transmission lines, radio antennae, satellite towers, cellular towers, etc. This does not apply to local service electric lines and poles (HUD-4128, Part B, No. 28).
- (3) Additional HUD requirements for oil or gas wells, sour gas wells and slush pits are found in HUD-4128, Part B, No. 28.
 - (a) Operating or planned drilling site: No structures may be within 300 feet from the boundary of the drilling site.
 - (b) Operating well: No structures may be within 75 feet of an operating well

unless the following mitigating measures are taken:

- i. Nuisance controls maintenance,
 - ii. Noise level controls caused by pumping, and
 - iii. Spill controls to reduce risk of contamination.
- (c) Abandoned well
- i. Confirmation by the State government that the well is safely and permanently abandoned and no structures are within 10 feet must be obtained.
 - ii. If there is no confirmation letter, no structures may be within 300 feet an abandoned well.
- (d) Sour gas (hydrogen sulfide bi-product) wells: Separation distance must be determined by a petroleum Engineer, with concurrence by State government.
- (e) Slush pits (used for drilling mud mixes for well lubrication):
- i. If on-site, hazards analysis is required to be performed pursuant to Section 1.3 above. Mitigation must include, but not necessarily be limited to, removal of all drilling mud from the site and backfilling with clean compacted material.
 - ii. If offsite, hazards analysis must be performed pursuant to Section 1.3.
- (4) If any part of a site is to be developed on filled ground, HUD may require that all grading be properly controlled to prevent differential earth movement, sliding, erosion, and/or other occurrences which might damage dwellings, streets or other improvements (HUD-4128, Part B, No. 27).
- (5) HUD OAE may adopt additional requirements to address unique local concerns, but, if any local requirement is mandated, OAE must inform the Deputy Assistant Secretary for Healthcare Programs of the requirement and its rationale.

GLOSSARY OF ACRONYMS

AIA	American Institute of Architects
ASD	Acceptable Separation Distance
ASTM	ASTM, International
CBRS	Coastal Barrier Resource System
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CLOMA	Conditional Letter of Map Amendment
CLOMR	Conditional Letter of Map Revision
CM	Construction Manager
CPD	Community Planning & Development
EC	Engineering Controls
EO	Executive Order
EPA	Environmental Protection Agency
EPR	Enhanced Passive Remediation
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FLOMA	Final Letter of Map Amendment
FLOMR	Final Letter of Map Revision
GMP	Guaranteed Maximum Price
HREC	Historical Recognized Environmental Condition
HUD	Housing and Urban Development
IC	Institutional Controls
LSTF	Local, State, Tribal or Federal Laws
MNA	Monitored Natural Attenuation
NAPL	Non-Aqueous Phase Liquid
NEPA	National Environmental Policy Act
NPL	National Priorities List
NFA	No Further Action
O&M	Operations & Maintenance

OAE	Office of Architecture and Engineering
OHP	Office of Healthcare Programs
RBCA	Risk Based Corrective Action
REC	Recognized Environmental Condition
SFNC	Sample Field Notes Checklist
USC	United States Code
VEC	Vapor Encroachment Condition
VIA	Vapor Intrusion Assessment