**Chapter 7**

**DEMOLITION**

A. GENERAL

Under certain circumstances, demolition costs for structures acquired with mitigation funds may be covered by the Public Assistance (PA) program. In general, these structures must have been damaged by a declared event to the point that they represent a hazard to life, safety or health. PA demolition standards are different from mitigation program standards in that PA programs only require removal of a structure to the level of the footing and do not require removal of footers, sidewalks, driveways and other features deemed necessary for completion of mitigation projects. Mitigation Staff will confer with NCEM’s Public Assistance Section to see if a cost savings may be recognized in the mitigation program by partnering with PA. Owners of properties insured under the NFIP that experience substantial damage may be eligible for demolition funds under the Increased Cost of Compliance rider to the NFIP policy. NCEM will assist local governments in the conduct of a duplication of benefits assessment to determine whether or not ICC funds must be claimed and signed over to the local government for use against project expenses to avoid a duplication of benefits situation.

The following requirements apply to all demolition associated with mitigation projects.

B. CONTRACT DOCUMENTS

Once the properties have been acquired and the jurisdiction is ready to proceed with a demolition project, contract documents must be developed specifying the work to be completed under the demolition project. Typically, these contract documents should include the following items:

*Advertisement for Bids -* The advertisement for bids is usually a short paragraph placed in a newspaper of general circulation (one that is distributed locally or regionally) or trade journal that alerts prospective bidders that contract documents are available for examination; explains where to obtain the contract documents, and provides a brief description of the project.

*Invitation to Bid* - This is a formal invitation to bid rather than a general announcement and is usually bound into the project manual as part of the contract documents. The invitation is more explicit than the Advertisement for Bids and includes a description of the proposed work, any special requirements, and most important, the date, time and location the bids will be received.

*Description of the Project -* This is a complete description of the project and expands on the descriptions included in the Advertisement for Bids and Invitation to Bid. For demolition, this should include a complete description of each property, and a description of demolition and debris disposal standards.

*Pre-Bid Qualifications statement -* This document asks pertinent and personal questions of prospective bidders. Usually there are five major areas of inquiry: organization of the contractor, financial condition, past experience, equipment and labor force available and work in progress. Together, this information provides a comprehensive picture of the qualifications of proposed bidders.

*General Conditions -* This document is usually a previously-developed document that is included in the project manual which defines and/or details such items as the contract documents, architect/engineer, owner, contractor, subcontractor, time limits for payments and completion of work, protection of persons and property insurance requirements, changes in the work, uncovering and correction of work, and termination of the contract. Most architects will use the *American Institute of Architects (AIA) Document A201*. Most engineers will use a similar document developed by the Consulting Engineers Council. The General Conditions are as implied, conditions which apply in general to the project.

*Supplementary Conditions* - The General Conditions, as discussed above, do not always clearly define the requirements of the project. For this reason most projects have supplements to the printed General Conditions. These Supplements can eliminate, alter, or add portions to the General Conditions to meet project requirements.

*Special Conditions* - Whereas Supplementary Conditions are actually variations of the General Conditions, Special Conditions are concerned with the project. Examples of Special Conditions include requirements for barricades, dust palliation, use of utilities, noise suppression, fire protection, use of elevators, toilets or existing parking, and burning waste if allowed. Not all projects need Special Conditions, but there should be a clear-cut separation between conditions that might apply to any project and the special requirements for a particular project.

*Instruction to Bidders* - This document details the bidding requirements that are placed upon bidders and instructs bidders on how to complete the necessary documents for an acceptable bid.

*Technical Specifications* - These specifications detail the technical requirements of the project work. The following sections may be included for demolition work: the demolition of existing structures, compaction control and testing, and completion of grading and lawns. The following minimum provisions are to be included as part of the technical specifications:

* All demolition debris (hazard and non-hazardous) shall be removed and taken to an approved landfill. All residential improvements acquired under the various UHMA programs, including but not limited to houses, garages, driveways, sidewalks and above-grade concrete slabs shall be removed. It should be noted that costs to remove streets, roads or sidewalks in the public right-of-way are not eligible for reimbursement under the Public Assistance Program.
* All septic tanks that are not removed shall be emptied, have the floors and walls cracked or crumbled so the tank will not hold water, and be filled with sand or other clean fill.
* All foundation and basement walls shall be removed to at least one (1) foot below the finish grade of the site.
* All basements shall be filled with compacted clean fill. Prior to filing, basement floors should be provided with a minimum one foot diameter hole in the floor to allow for drainage. The jurisdiction’s demolition inspector should verify that the hole has been placed in the basement floor before it is filled in.
* Only trees which restrict the demolition work on any structure may be removed as part of the demolition project. Any additional tree removal will be done at the jurisdiction’s expense.
* All abandoned utilities shall be terminated at least two (2) feet below the finish grade of the site.
* Removal of underground fuel storage tanks and adjacent contaminated materials is not eligible for Public Assistance reimbursement. Such tanks should be removed and disposed of in accordance with local, state, and federal regulations. Tank demolition and removal costs are eligible expenses; any site remediation costs due to contamination from tank contents will not be deemed an eligible program expense.
* All demolition sites shall be graded and leveled. Clean fill should be added to provide a minimum 12 inch layer of soil capable of encouraging vegetation. The contractor should provide grass seed and straw to the entire soil surface unless the site is to be used for agricultural purposes.

There are several forms that should be included in the contract documents. These forms are:

* Bid Form
* Bid Guarantee Form
* List of Subcontractors Form
* Agreement
* Performance Bond Form
* Payment Bond Form
* Notice of Award Form
* Notice to Proceed Form
* Application for Payment Form
* Lien Waiver Form
* Change Order Form
* Certificate of Substantial Completion
* Hold Harmless Agreement

The contract documents should include the following minimum bonding requirements:

1. *A bid guarantee from each bidder equivalent to five percent of the bid price*. This bid guarantee shall consist of a firm commitment such as a bid bond, certified check or other negotiable instrument accompanying the bid as assurance that the bidder will, upon acceptance of his or her bid, execute such contractual documents as may be required within the time specified.

2. *A performance bond on the part of the contractor for 100 percent of the contract price.* A performance bond is to be executed in connection with a contract to secure the fulfillment of all the contractor’s obligations under the contract.

Other Uses of Structures to be Demolished

The jurisdiction may allow various police and fire organizations to use acquired structures for training purposes prior to their demolition. In some cases, police organizations may ask jurisdictions for permission to use structures for hostage situation training or other purposes. Similarly, fire departments may ask to use acquired structures for controlled fires to practice their procedures. In both cases, the jurisdiction must realize that they may be liable for damages or injuries which could occur as a result of these organizations using the structures and should take the appropriate measures to protect themselves from this liability. In addition, any such actions must be considered in terms of possible non-compliance with existing local, state and federal environmental ordinances, laws, and regulations.

C. DEMOLITION MINIMUM SPECIFICATIONS

1. General

The Contractor shall provide all labor, equipment, machines and tools necessary to perform demolition and debris removal of structures at the work sites identified on the Bid Form. The work sites will be identified by street address of the primary structure located at the site, and each site will be additionally identified by the Tax Identification Number of the property. All utility services must be shut down by appropriate parties.

The Contractor shall verify the service has been shut down prior to accomplishing the physical disconnections and any capping or terminations necessary to proceed with demolition. The local/state government will present the Contractor with the condemnation notice and/or permit for demolition and right-of-entry for each structure.

The Contractor shall comply with the directions of the local/state government representative having jurisdiction over the work, such as, but not limited to, the hours of work and the abandonment of utilities. The pricing submitted for the subject work shall be all-inclusive. The cost submitted will include the removal of all debris generated by the demolition and removal of any debris which is deemed necessary to complete the demolition.

2. Mobilization

The Contractor shall be capable of mobilizing his equipment and crews within seven days of the receipt of Notice to Proceed. The Contractor shall work expeditiously to obtain permits and proceed with the work.

3. Scope of Work

Demolition will include the cost of “Final Disposal” of debris in a manner that complies with all local, state and federal codes. Structures with basements will have their walls pushed in and backfilled with clean, unclassified fill material. Concrete pads, slabs or driveways will be removed and may be disposed of on site if buried below grade with a 3 foot minimum of cover. Erosion due to flood waters will be filled and/or graded to blend in with the contours of surrounding areas.

In addition to the general requirements, the following conditions shall also be required:

a. The Contractor is responsible for demolishing the specific structures and removing the resulting debris, as well as any associated outbuildings specified by the local/state representative.

b. All demolition debris shall become the property of the Contractor. It shall be the Contractor’s responsibility to remove from the site and properly dispose of all material in accordance with federal, state and local ordinances.

c. The Contractor shall coordinate the clearing of all property with the local/state representative.

d. Inoperable automobiles, trucks, boats and trailers shall be removed from the site by acceptable and approved towing methods. Unless notified otherwise, these items shall become the property of the Contractor.

e. All relevant street side appurtenances including fire hydrants, fencing and street signs shall be left undamaged during demolition and debris removal. Damaged, disconnected and/or out-of-place street side appurtenances, such as fire hydrants, manhole covers and street signs shall not be collected, unless otherwise directed by the local/state representative. Locations of previously-damaged appurtenances shall be reported to the local/state representative.

g. Propane cylinders may be located in debris. If found, propane cylinders shall be stored on-site and the appropriate local/state representative shall be notified. Propane cylinder disposal measures should be undertaken at the discretion of the local/state representative.

h. The Contractor can use tracked or rubber-tired equipment in the performance of this contract. The Contractor is directed to coordinate with the local/state representative in identifying and resolving liability for damage. The Contractor shall make repairs to property damaged by negligence of the Contractor. Damages caused by the fault or negligence of the Contractor will not be reimbursable under this contract. The Contractor shall preserve and protect all existing structures which have not been designated for demolition. The Contractor shall preserve and protect vegetation such as trees, shrubs and grass on or adjacent to the area of work.

i. The Contractor is responsible for collecting and transporting debris. All truck hauling must comply with State Department of Transportation Regulations. After being loaded in the work area, trucks shall have their loads trimmed so that no debris extends horizontally beyond the bed in any direction. All trucks utilized in hauling debris shall be provided with a means to effectively contain the debris on the vehicle while hauling.

j. Any material which is found to be classed as hazardous or toxic waste shall be reported immediately to the local/state representative. At the local/state representative’s direction, this material shall be segregated from the remaining debris in such a fashion as to allow remaining debris to be loaded and transported.

k. The Contractor is to notify the local/state representative immediately of any situation which causes a health or safety risk to workers on site. The hazardous or toxic waste must be disposed of in accordance with federal, state, and local ordinances.

l. The use of burning at the project site for the disposal of refuse and debris will not be permitted unless for fire fighter training. The use of explosives will not be permitted.

m. The Contractor must comply with all state and/or federal laws, regulations, policies and guidelines and take all necessary precautions to identify and protect threatened or endangered species and wetland habitats throughout the duration of the project.

n. The Contractor shall verify whether or not underground storage tanks are present at the project site. If underground tanks are found to be present, the Contractor must notify the local/state representative prior to any attempt to remove the tanks.

o. Any fill material required from a borrow site must be obtained from a borrow site which has been pre-approved in writing by the state/local government.

p. Rough grading of the site by the Contractor is included. Preparation of subsoil, placing of topsoil, seeding, mulching and fertilizer are not a part of this demolition contract.

r. Prior to demolition, each acquisition property will be inspected to determine the possible presence of asbestos, and other toxic and/or hazardous substances. The inspection will be conducted in compliance with all federal and state environmental laws and regulations.

Should asbestos or other toxic and/or hazardous substances be found during inspection, the building demolition and site clean-up will be conducted in such a way as to be in compliance with all federal and state environmental laws and regulations.