



CONNECTICUT
HOUSING FINANCE
AUTHORITY

The Key To Affordable Housing

Connecticut Housing Finance Authority

Construction
Guidelines:
Environmental &
Hazardous Materials
Review

2015

These Guidelines are effective January 1, 2015

I. Environmental Design Concerns/Review Guidelines

Building materials, components, fabrications, assemblies and equipment for all proposed development projects – rehabilitations and new construction – shall comply with the applicable sections of the current “Multifamily Design, Construction and Sustainability Standards-CHFA” (“the Standards”). The “Construction Guidelines: Project Planning & Technical Services Review” and the Standards define the design process and the specific requirements for multifamily housing financed through CHFA. All applications must meet the Standards, and must comply with CHFA Procedures and the requirements of the CHFA/DOH Consolidated Application and all current Federal, State & Local Environmental Laws & Regulations.

The “Construction Guidelines: Environmental & Hazardous Materials Review” outline the CHFA Technical Services environmental review process. CHFA may select and commission an outside, third-party CT-Licensed Environmental Professional (at the applicant’s expense), from an approved list developed by the Authority, to review environmental reports for conformance to CHFA Environmental/ Hazardous Materials Review Guidelines. When required, the applicant will make advance, non-refundable payment for such environmental reviews.

A. Environmental Site Considerations

1. Potential issues and concerns:
 - a. Adjacent Properties
 - b. Proximity to Railroads/Highways/Large Agricultural Enterprise
 - c. Wetlands/Floodplains
 - d. Soil Type and Composition
 - e. Illegal Dumping
 - f. Hazardous Materials (HazMats)
 - g. Existing Buildings
 - h. Current/Previous Building Uses (Gas Stations/Dry Cleaners/Heavy Industry/Brownfield)

B. Environmental Consultants

The Owner/Developer shall contract with currently-licensed State of CT Environmental Consultants as necessary to investigate proposed development sites, in order to identify environmental concerns that need to comply with Federal and/or State Regulations. Based on the nature/conditions of the site and the types of environmental concerns initially identified by the Environmental Consultants, additional investigation and/or testing may be required. Based on the results of investigation and testing, site remediation and/or abatement may be required.

C. Environmental Consultant Qualifications

1. Connecticut Dept. of Energy and Environmental Protection (DEEP)
 - a. Licensed Environmental Professional Program (CT LEP)
 - b. Connecticut Dept. of Public Health (CT DPH) Lead Program
 - c. Connecticut Dept. of Public Health (CT DPH) Asbestos Program

D. Environmental Consultant Lists

1. Connecticut Department of Environmental Protection (CT DEP) and Environmental Professionals Organization of Connecticut (EPOC)
 - a. Licensed Environmental Professional (CT LEP)
2. The Connecticut Dept. of Public Health (CT DPH)
 - a. Licensed Lead Abatement Consultants and Contractors
 - b. Licensed Asbestos Consultants
 - c. In-State Approved Commercial Environmental Laboratories
 - d. Out-of-State Approved Commercial Environmental Laboratories
 - e. Approved Non-Commercial Environmental Laboratories

E. Environmental Site Assessment (ESA) Process

ESA components are generally presented in three major phases of investigation: Phase I, II and III. For certain sites, it may be cost effective to combine Phase I and Phase II or Phase II and Phase III. Environmental Consultants may conduct activities consistent with Phase III for one part of the site, while conducting activities consistent with Phase I or Phase II for other parts of the site.

1. Phase I Site Assessment

A Phase I Site Assessment investigation of the existing and past uses of a site for the purpose of identifying areas on a site at which pollutants may have been released into the environment is required for all projects seeking financing through CHFA. Such areas may be identified as “Areas of Concern”, “Potential Release Areas” or “Recognized Environmental Conditions”. Based upon the Owner’s Environmental Consultant’s findings, and/or the opinion of the CHFA third-party Environmental Consultant’s review/opinion, a Phase II Site Assessment may be required.

2. Phase II Site Assessment

A Phase II Site Assessment is an investigation of each “Area of Concern”, “Potential Release Area” or “Recognized Environmental Condition” to determine whether or not pollutants have, in fact, been released to the environment. Based upon the Owner’s Environmental Consultant’s findings, and/or the opinion of the CHFA third-party Environmental Consultant’s review/opinion, a Phase III Site Assessment may be required.

3. Phase III Site Assessment

A Phase III Site Assessment is an investigation that fully characterizes the nature and extent of contamination resulting from any release which has occurred on a site. While remedial actions to abate pollution may be taken at any time in the course of characterizing a site, a final remedial action plan can only be developed after a complete Phase III investigation.

4. Mitigation:

Design and construction documents shall incorporate work necessary to mitigate environmental concerns identified by CHFA and the Owner’s consultants unless these concerns are addressed prior to construction start and are outside the limits of the construction documents. Mitigation methods shall be in accordance with a plan prepared in conformance with applicable State and Federal regulations and accepted by CHFA.

II. Hazardous Material Review Guidelines

The following environmental/hazardous materials guidelines shall be followed for providing construction financing of multifamily developments pertaining to both new construction and the rehabilitation of existing buildings & properties:

A. Environmental/Hazardous Materials Consultant Qualifications

Submit qualifications of the firm along with the experience and licenses of those employees assigned to investigate, inspect, perform the environmental services and/or prepare reports. Environmental Consultants shall be Connecticut Licensed Professionals within their specific field. For verification of site remediation and or abatement work confirming environmental compliance, the firm and/or individual employed shall be listed on the current “CT DEP List of Licensed Environmental Professionals”.

B. Environmental/Hazardous Materials Site Assessment Report

A Phase I Environmental Site Assessment report prepared by a Connecticut Licensed Environmental Professional (CTLEP) shall be submitted to CHFA for review. Environmental Site Assessments shall comply with the National Environmental Policy Act (NEPA) and be prepared in accordance with Standards outlined in the “Transfer Act Site Assessment Guidance Document” (TASA, CTDEP) including current revisions published by the CT DEP and ASTM Standard E1527-13, Standard Practice for Environmental Site Assessments. Based on the information submitted and reviewed, additional phased site investigations, testing and or reports may be required.

C. Lead-based Paint

1. All current, applicable Federal, State and Local Laws and Regulations shall be adhered to, including the following:
 - a. “Guidelines for the Evaluation & Control of Lead-Based Paint Hazards in Housing” as published by the U.S. Department of Housing and Urban Development
 - b. State of Connecticut Department of Public Health & Addiction Services, Guidance Document for Lead Abatement
 - c. U.S. Environmental Protection Agency requirements regarding removal & disposal of lead-based paint
 - d. OSHA, Lead in Construction Standard 29 CFR 1926.62
 - e. Local Governmental Laws & regulations pertaining to lead-based paint.

D. Asbestos

1. All current, applicable Federal, State and Local Laws and Regulations shall be adhered to, including:
 - a. U.S. Environmental Protection Agency regulations and forms
 - b. State of Connecticut Department of Health Services Regulations - Standards for Asbestos Abatement

E. Radon

1. Provide radon testing of properties where buildings will be used for residential occupancy. If testing results are not provided, a Radon Mitigation System will need to be installed. Comply with all current U.S. Environmental Protection Agency guidelines for Residential Construction including:
 - a. EPA Document - “Radon-resistant Construction Techniques for New Residential Construction” (current issue)
 - b. EPA Document- “Model Standards and Techniques for the Control of Radon in New Residential Buildings” (current issue): A passive Radon Mitigation System shall be provided where radon test results are above the EPA Action Guideline of 4 pCi/L. A passive Radon Mitigation System shall also be provided where pre-construction testing is impractical or impossible. Upon completion of construction, but prior to occupancy, radon testing shall be performed, and test results shall be submitted for review. If radon test results remain above the EPA Action Guideline of 4 pCi/L, passives systems shall be made active by mechanical/electrical means.
 - c. HUD’s Office of Multifamily Development Radon Policy dated January 31, 2013

F. Other Environmental Concerns

1. Submit site & building information indicating review of other potential environmental concerns, including, but not limited to, the following:
 - a. Mold
 - b. Urea Formaldehyde Insulation
 - c. Polychlorinated Biphenyls (PCBs)
 - d. Drinking Water/Piping Systems
 - e. Flood Classification and/or Flood Zone
 - f. Wetland Classification and Designated Areas

G. Environmental Attorney

The Owner’s Environmental Attorney needs to confirm review of environmental reports prepared by consultants to insure that all applicable environmental regulations specific to the property will be met, including an opinion regarding the applicability of the CT Transfer Act and whether the site meets the definition of an “Establishment” per the Act. Submit opinion-statement from the Owner’s Environmental Attorney.

H. Abatement/Remediation Costs

Upon completion of all testing, and the determination of the scope of possible abatement and or remediation work, submit cost information for review.

I. Hazardous Material Notification Clause

In all developments involving demolition or rehabilitation, specifications shall be written to include the following:

"In carrying out the work of this contract, should the contractor encounter asbestos or other toxic materials the Contractor shall:

1. *Notify all parties to this contract;*
2. *Notify applicable State and Local authorities; and (if the cleanup is to be carried out under the direction of the contractor)*
3. *Make application for permits necessary for removal (or other methods of mitigating the potential harmful effects) of such materials; and*
4. *Upon receipt of required permits mitigate potential harmful effects of such materials in accordance with permits and applicable Codes and Laws."*

If the Contractor is not to be responsible for mitigation, the Sponsor/Developer/Owner shall carry out mitigation in accordance with the requirements as stated above.

III. Remediation/Re-use of Existing Brownfield Sites

CHFA encourages the re-use and redevelopment of abandoned or underutilized commercial and industrial sites, where redevelopment and re-use has not occurred due to the presence or potential presence of pollution in the buildings, soil and/or groundwater, which requires remediation before, or in conjunction with, the restoration, redevelopment and re-use of the property.

A. Soils Investigation for Previously Developed Sites

Where proposed developments are to be located on previously developed sites, particularly developmentally-suspect "brownfield" sites, an acceptable soils investigation plan shall be submitted to CHFA prior to Authority Feasibility.

1. Soils Investigation Plan

- a. The intent of the plan is to determine the extent of underground debris, buried fuel tanks, contaminated soil, etc. that needs to be removed and/or remediated, in order to construct the proposed development's buildings, parking, and utilities.
 - b. The plan shall be based on the location of previous structures using a review of historical Sanborn Insurance maps, similar historical information, historical aerial photographs, previous environmental investigations, and the proposed location of future buildings, parking and utilities.
 - c. The plan shall call for test pit trenches, using a backhoe, to be dug across the width of all areas of previous structures. The extent of the test pit trenches shall be explicitly delineated in the plan. The extent shall be suitable to determine the amount and cost of debris removal and replacement of excavated materials. The test pits shall be a minimum of 18" wide and to the depth of virgin soil.
2. **Soils Report**: Prior to undertaking the soil investigation, and only after plan approval, the development team shall notify the Authority's Technical Services staff as to the time and place of the investigation to allow Authority staff to observe the soil investigation. A complete soils report of the investigation, prepared by a qualified professional soils engineer, shall be submitted to the Authority. This soils investigation shall not remove the development team from the responsibility to carry out soil borings necessary to adequately determine the bearing capacity of the soil and recommend an adequate structural design for buildings, parking and utilities.
3. **Cost Estimate**: After the soils investigation and subsequent report, the developer, contractor and architect shall estimate the costs necessary to remove the underground debris, provide environmental remediation and restore the property to a "buildable" site. The costs shall be submitted to the Authority as a separate line item on the Authority's Exploded Trade Payment Breakdown (ETPB) form. This line item shall also include costs

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necessary to cover all environmental remediation of the site. The Authority shall review the soils removal costs and the environmental remediation costs as part of the ETPB approval process for Feasibility.

4. Contingency: The “soft costs” portion of the Pro Forma for the development shall include an additional contingency for the necessary removal of unforeseen underground debris, environmental remediation and site restoration, as may be determined during the course of normal construction activities.