

# **CHFA Developer Training Seminars: Pre-Submission**

prepared by the

## **Technical Services Department**

at the

## **Connecticut Housing Finance Authority**

999 West Street

Rocky Hill, Connecticut

presented on

### **April 24, 2007**



CHFA  
999 West Street  
Rocky Hill, Connecticut 06067  
[www.chfa.org](http://www.chfa.org)





## Welcome to CHFA

- This seminar is the cornerstone presentation for a series of five seminars defining the Technical Services acceptance procedure for multifamily developments.
- This series will highlight each phase of the Technical Services review process in succession:
  - Pre-Submission (Pre-Design/Site Analysis) – 04/24/07
  - Preliminary Application (Feasibility/Concept) – 06/19/07
  - Full Application (Design Development/Construction Document Development) – 08/14/07
  - CHFA Approval/Initial Closing – 11/13/07
  - Final Closing – 01/15/08
- This seminar outlines Technical Services' expectations and requirements for the Development Team – Owner/Developer, Architect and Contractor – prior to the submission of a development application to CHFA.





## CHFA Technical Services

- CHFA Technical Services Staff
  - Mark Hirsch – Manager Architectural & Construction Development (Technical Services)
  - August Sarno – Senior Architect/Environmental Reviewer
  - Charles Emerson – Architect
  - George Kleven – Field Observer
  - Orrie Vardar – Field Observer
  - Robert Ottiano – Development Cost Analyst
- The goal for Technical Services is to facilitate the development of quality affordable multifamily housing at the most reasonable cost.
- Housing units must be constructed to last the life of the mortgage (typically 40 years) – plus any extended use terms (up to 15 years).



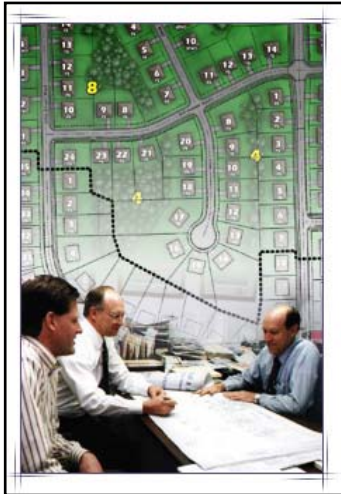


## What Technical Services Does

- Implements the CHFA Standards of Design and Construction through:
  - Development Team Review
  - Design/Construction Documents Review
  - Development/Construction Cost Review
  - Construction Observation
  
- Review Considerations:
  - Utility
  - Convenience
  - Health and Safety
  - Accessibility
  - Comfort
  - Indoor Air Quality
  - Quality Materials
  - Durable Details
  - Energy Efficiency
  - Sustainability/Resource Conservation



# Seminar Outline

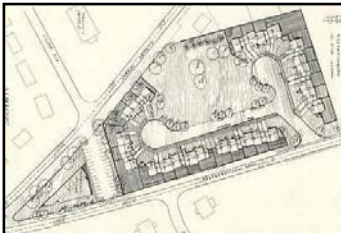


## Development Team

- Selection Process
- Architect
- Consultants
- General Contractor
- Project Delivery Method

## Site Selection

- Location
- Planning and Zoning
- Land and Soil
- Site Utilities
- Existing Structures
- Costs



## Environmental Issues

- Environmental Consultants
- Environmental/HazMat Review Guidelines
- Phase I Site Investigation

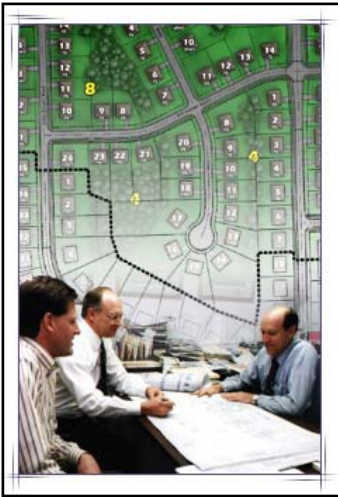
## Questions





# Development Team

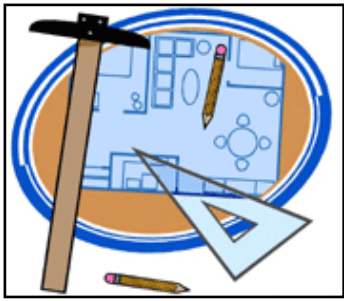




## Development Team Selection Process

- The Owner/Developer issues a Request for Qualifications (RFQ) for architectural services.
  - The Owner/Developer selects several candidates, from the architectural firms (A/E) that respond to the RFQ, to be interviewed.
  - The Owner/Developer conducts the interviews, selects an architectural firm (A/E), and negotiates a contract.
  - Using the same RFQ/interview process, the Owner/Developer selects a General Contractor (GC), and negotiates a contract.
- 
- The Development Team - Owner/Developer, Architect (A/E), and General Contractor (GC) - is established.





# The Architect

- An Architect is the licensed design professional who listens to the Owner/Developer's wishes, and helps realize the Owner/Developer's building dreams.
- The Architect considers appearance, function, safety and economy in translating future user needs into documents, which enable the General Contractor to build the project.
- The Architect functions as a counselor, planner, designer, mediator and work coordinator, working closely with clients, user groups, professional consultants, builders, trades workers, government bodies, attorneys, bankers and other specialists to balance their requirements.
- The Architect acts as the Owner/Developer's representative throughout the design and construction process, to ensure that the final product meets expectations.





## What Architects Do

- Develops the Owner/Developer's project goals – user needs, functions, design expectations and available budget - into a development program.
- Addresses governmental regulations, such as building codes, zoning laws, fire regulations, and those requiring easy access by disabled persons.
- Translates the project program into design concepts.
- Assembles and coordinates the work of a team of professional consultants.
- Prepares construction drawings and specifications.
- Administers the construction contract.





## CHFA Architect Qualifications

- The Architect shall be licensed by the State of Connecticut and must have a minimum of five (5) years of relevant, multifamily residential design and construction experience.
- The Architect shall provide proof of such experience by submitting at least three (3) reference letters from current and/or past clients, regarding the Architect's performance on multifamily residential projects of similar type and size.
- The Architect's consultants shall submit similar documentation of relevant, multifamily residential design and construction experience in their specific disciplines.





## Potential Consultants

- Environmental Consultants
- Land Surveyor
- Site/Civil Engineer
- Soil Scientist/Geo-technical Engineer
- Landscape Architect
- Traffic Consultant
- Building Code Consultant
- Energy Consultant
- Acoustical Engineer
- Structural Engineer
- Plumbing/Fire Protection Engineer
- Mechanical Engineer
- Electrical Engineer
- Interior Designer





## **Overview of CHFA Requirements for Architects**

- The Authority relies heavily on the professional competency of participating architectural firms and their consultants.
- Architects should fully express themselves in their design submissions.
- Architects must not submit design proposals they do not agree with, or which are not prepared by their design firm.
- CHFA discourages multiple professional services contracts. All consultant services that contribute to the drawings and specifications shall be in the employ of the Architect.

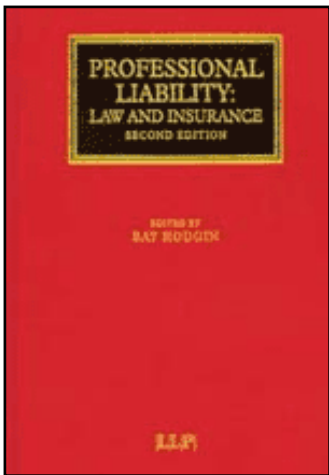




# Owner/Architect Agreement

- AIA Document B141-1997 Part 1 – Standard Form of Agreement Between Owner and Architect with Standard Form of Architect’s Services
- AIA Document B141-1997 Part 2 – Standard Form of Architect’s Services: Design and Construction Administration (C/A)
- CHFA Agreement Requirements:
  - Contracts shall be assignable to CHFA
  - The Construction Administration portion of the Architect’s fee shall be a minimum of 35% of the total fee, and shall be paid in equal monthly installments based upon the length of the agreed-upon construction schedule.
  - The scope of the Architect’s Services shall include the preparation of agenda, scheduling and running weekly job-site meetings with the Owner/Developer, GC, and CHFA Field Observer, recording meeting minutes and distributing copies to all parties.
  - The Architect shall also prepare and distribute a final punch list to all parties, and verify that the work is completed by the GC.





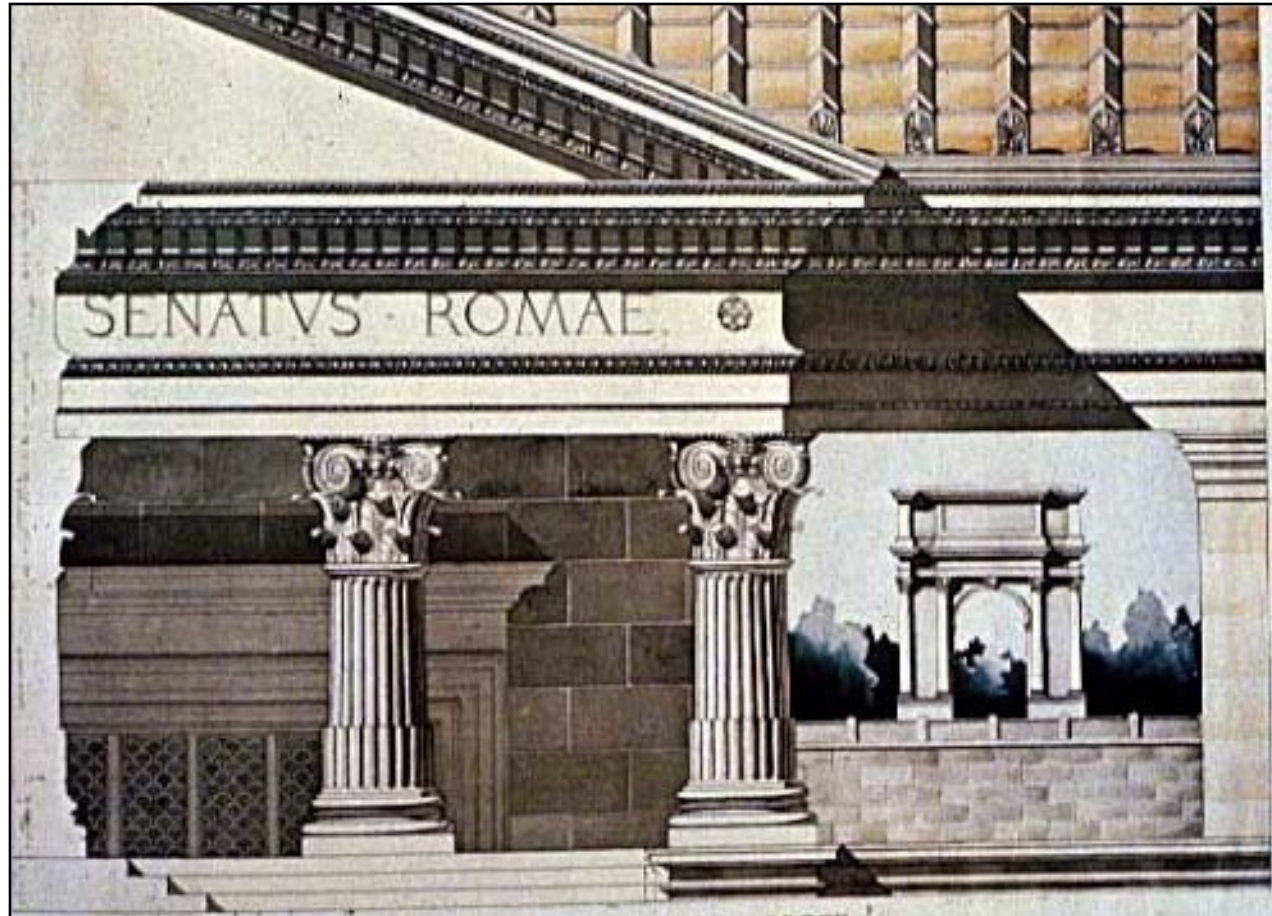
# Professional Liability Insurance

- Design/Supervisory Architects, and their professional consultants, shall provide and maintain professional liability insurance in a form, amount and term satisfactory to CHFA.
- Design/Supervisory Architects shall furnish evidence of professional liability insurance acceptable to CHFA, prior to the date of submission of drawings and outline specifications to the Authority for Preliminary Application.
- All insurance policies must be in full force and effect as of the date of submission, and must be maintained for a period of seven (7) years after substantial completion of construction.
- Minimum amount of professional liability insurance coverage shall be:
  - \$1,000,000 for projects with construction costs up to \$5,000,000
  - \$2,000,000 for projects with construction costs up to \$10,000,000
  - \$3,000,000 for projects with construction costs over \$10,000,000, or as otherwise determined on a case-by-case base by CHFA.
- CHFA shall be a named certificate holder on all Professional Liability Insurance Certificates





## Questions?





# The General Contractor





## What General Contractors Do

- The General Contractor (GC) is responsible for the construction or development of a property, pursuant to the terms of a primary contract with the Owner/Developer.
- The GC is responsible for the means and methods – materials, vehicles, tools and labor – used in the construction of the project, in accordance with the contract documents – construction contract, schedule, general conditions, material/systems specifications and drawings – prepared by the Architect.
- The GC manages the construction process, including planning, staffing, organizing, budgeting, scheduling and supervision.
- The GC must use his own employees to perform at least 15% of the construction work, but can utilize the services of specialty trade firms (Sub-Contractors) to complete the project.
- The function of the Sub-Contractor is to perform particular tasks under the direction and coordination of the GC in a direct contractual relationship.





# General Contractor Qualifications

- The General Contractor shall be licensed by the State of Connecticut and must have a minimum of five (5) years of relevant experience in the construction of residential facilities.
- The General Contractor shall provide proof of such experience by submitting a minimum of three (3) reference letters from current and/or past clients, regarding the GC's performance on residential projects of similar type and size.
- The General Contractor shall provide a minimum of three (3) reference letters from major material suppliers, regarding the GC's credit account payment history.





## **Overview of CHFA GC Requirements for General Contractors**

- CHFA encourages constructive participation by the General Contractor during the design process, and recommends the GC's regular input to help maintain cost control for the proposed housing development.
- Recognizing that field experience has given the General Contractor unique and valuable insight into cost-saving construction techniques, the Authority seeks the benefit of this experience as it relates to the design process.
- To facilitate a constructive exchange of ideas, the Authority forwards CHFA Design and Construction review comments to the Owner/Developer and General Contractor, as well as to the Architect.





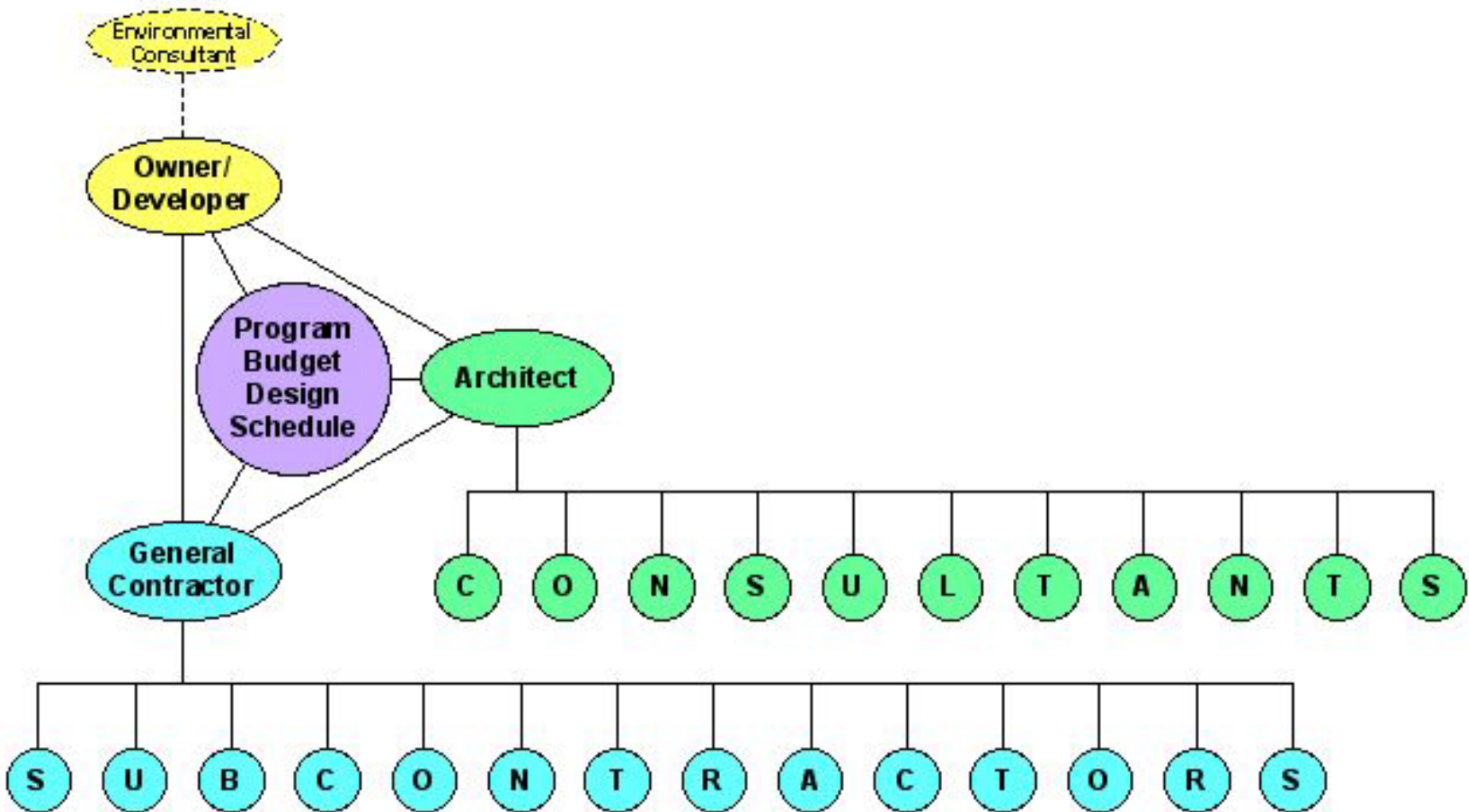
## Owner/General Contractor Agreement

- AIA Document A101 – 1997 Standard Form of Agreement Between Owner and Contractor – Stipulated Sum, with Instructions
  
- AIA Document A201 – 1997 General Conditions of the Contract for Construction, with Instructions
  
- AIA Document A312 – 1984 Performance Bond and Payment Bond, with Instructions
  
- CHFA Agreement Requirements:
  - Contracts shall be assignable to CHFA
  - Liquidated damages
  - Date of Commencement and Completion of Construction
  - Progress Payments
  - Reduction of Retainage





# CHFA Model Project Delivery Method



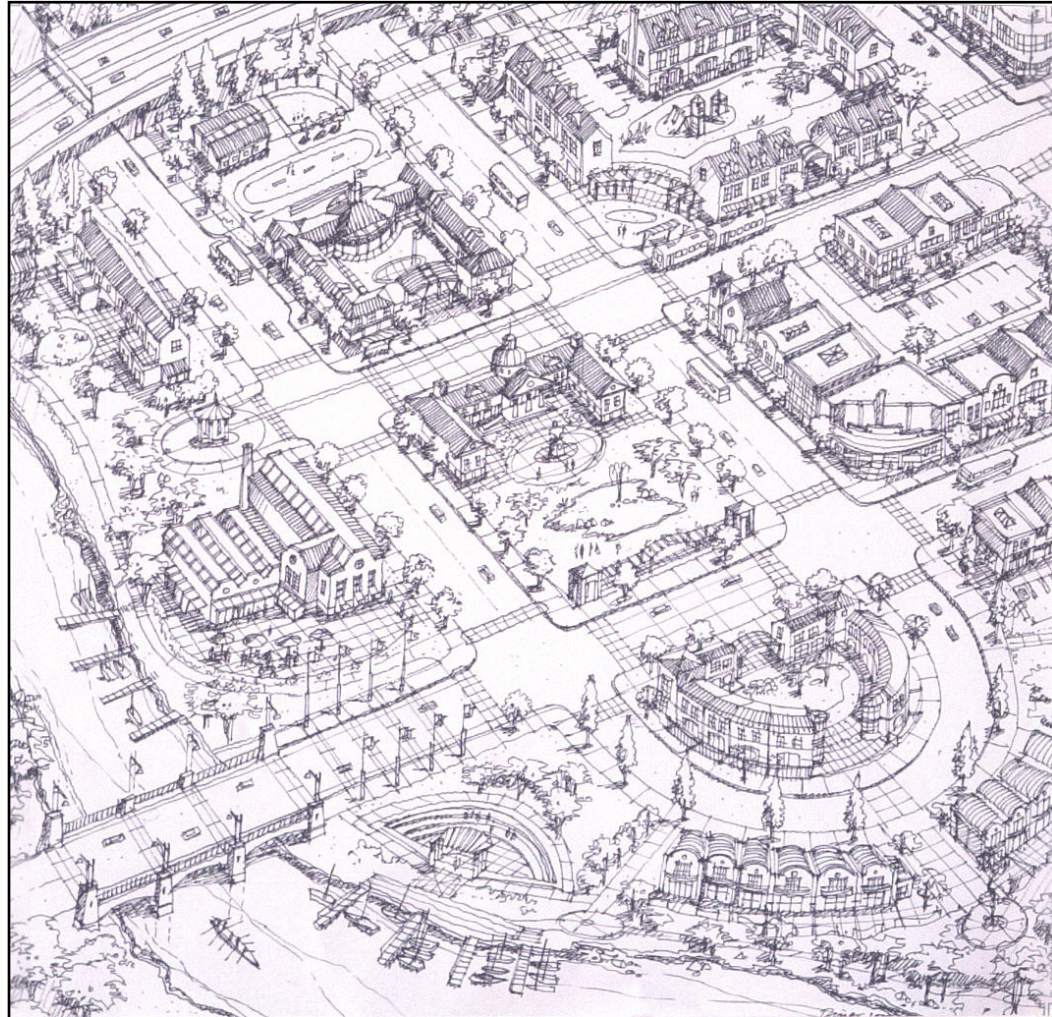


# Questions?





# Site Selection

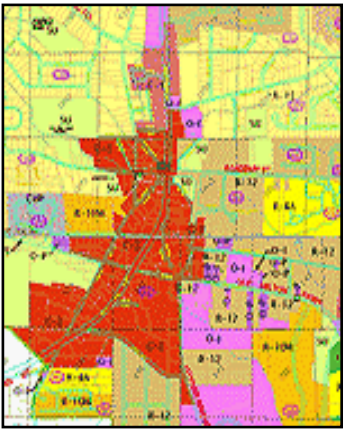




## Location

- Adjacent uses, and densities
- Open Space on- and off-site
- Physical/social characteristics
- Adverse influences (railroads, highways, floodplains, heavy industry, brownfields, etc.)
- Preservation of historic/scenic features
- Proximity to:
  - health care facilities
  - social services
  - education
  - places of worship
  - public transportation
  - shopping (supermarkets, pharmacies, department stores, etc.)
  - commercial services (financial, legal, etc.)





## Planning and Zoning

- Minimum lot size/frontage
- Use restrictions
- Easements, Encroachments, and Rights of Way
- Front, rear and side yard setbacks
- Density and Bulk restrictions
- Maximum lot coverage by buildings/paving
- Parking requirements
- Wetlands and open space requirements
- Zoning approval/variance procedures





## Land and Soil

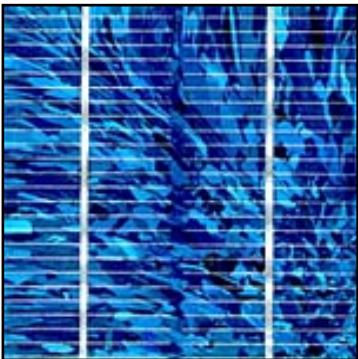
- Topography and landforms
- Geo-technical Report (test pits/ borings)
- Soil type and composition
- Soil bearing capacity
- Illegal Dumping
- Hazardous Materials (HazMats)
- Proximity to large agricultural enterprise (odors/insects/pesticides)





## Site Utilities

- Determine accessibility, condition and age of public utility feeds; i.e. water, sanitary/storm sewer, electric, gas, communications (development of sites without access to public sanitary systems will not be funded)
- Determine Green possibilities for placement of alternative energy systems to control utilities cost; i.e. solar heat/hot water, photovoltaic cells, geothermal

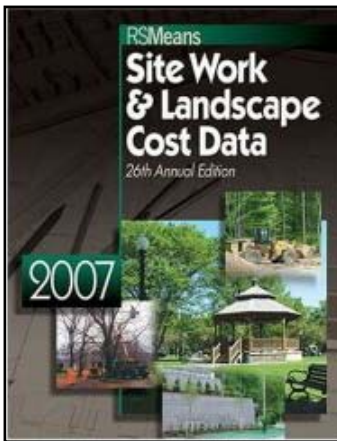




## Existing Structures

- Previous building uses (gas stations, dry cleaners, factories, etc.)
- Structural viability of building and appurtenant structures
- HazMats
- Feasibility/expense of bringing building up to Code
- Treat building(s) as part of the site





## Site Development Costs

- Site selection determines limits of site development costs
- Administrative and Legal fees
- Environmental Testing and Reports
- Bring site into Code compliance
- Removal of HazMats/remediation





## Questions?





## Environmental Issues





## Environmental Site Considerations

- Direct relationship with Site Selection
- Certain issues are readily identifiable:
  - Existing Buildings
  - Adjacent Properties
  - Uses/Activities
- Prior to property purchase/option:
  - Available Resources
    - Town/City Agencies
    - Architect
    - Environmental Consultant (preliminary information)
  - Goal: Manage Risk
- Site Development Cost Impact





## Environmental Consultants



- Environmental Consultants are Licensed Professionals who 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.





## Environmental Consultant Qualifications



- **Connecticut Dept. of Environmental Protection (CT DEP) – Licensed Environmental Professional Program (CT LEP)**  
*[http://www.ct.gov/dep/cwp/view.asp?a=2715&q=324984&depNav\\_GID=1626](http://www.ct.gov/dep/cwp/view.asp?a=2715&q=324984&depNav_GID=1626)*
- **Connecticut Dept. of Public Health (CT DPH) – Lead Program**  
*[http://www.dph.state.ct.us/BRS/Lead/lead\\_program.htm](http://www.dph.state.ct.us/BRS/Lead/lead_program.htm)*
  - Licensed Lead Inspector
  - Licensed Lead Inspector Risk Assessor
  - Licensed Lead Planner–Project Designer
- **Connecticut Dept. of Public Health (CT DPH) – Asbestos Program**  
*[http://www.dph.state.ct.us/BRS/asbestos/asbestos\\_program.htm](http://www.dph.state.ct.us/BRS/asbestos/asbestos_program.htm)*
  - Licensed Asbestos Consultant–Inspector/ Management Planner
  - Licensed Asbestos Consultant–Project Designer
  - Licensed Asbestos Consultant–Project Monitor





## Environmental Consultant Lists

- **Connecticut Department of Environmental Protection (CT DEP) and Environmental Professionals Organization of Connecticut (EPOC):**
  - **Licensed Environmental Professional (CT LEP)**  
*[http://www.ct.gov/dep/lib/dep/site\\_clean\\_up/lep/LEProster.pdf](http://www.ct.gov/dep/lib/dep/site_clean_up/lep/LEProster.pdf)*
- **The Connecticut Dept. of Public Health (CT DPH):**
  - **Licensed Lead Abatement Consultants and Contractors**  
*[http://www.dph.state.ct.us/BRS/Lead/Licensing\\_lists/lp\\_liclead.pdf](http://www.dph.state.ct.us/BRS/Lead/Licensing_lists/lp_liclead.pdf)*
  - **Licensed Asbestos Consultants**  
*<http://www.dph.state.ct.us/BRS/asbestos/CONSULTANTS.PDF>*
  - **Licensed Asbestos Contractors**  
*<http://www.dph.state.ct.us/BRS/asbestos/contractors.pdf>*
  - **In-State Approved Commercial Environmental Laboratories**  
*[http://www.dph.state.ct.us/BRS/Environmental\\_Lab/in\\_state.pdf](http://www.dph.state.ct.us/BRS/Environmental_Lab/in_state.pdf)*
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  - **State/Municipal/Industrial/Non-Commercial Environmental Laboratories**  
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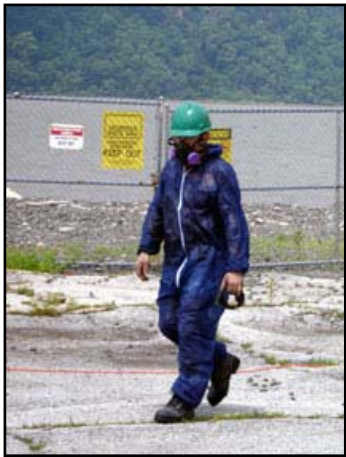




## CHFA Environmental/Hazardous Materials Review Guidelines

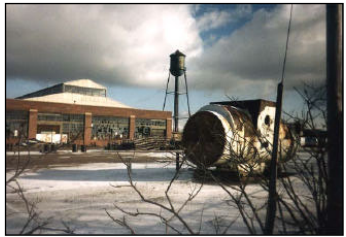
- **Consultants Qualifications**
  - Connecticut Licensed Environmental Professionals (CT LEP)
  
- **Environmental Site Assessment Standards and Guidelines**
  - National Environmental Policy Act (NEPA)
  - CTDEP Transfer Act Site Assessment Guidance Document (TASA)
  - ASTM Standard E1527-05
  
- **Hazardous Materials/Environmental Issues**
  - Lead-based Paint
  - Asbestos
  - Radon
  - Mold/Mildew
  - Urea Formaldehyde
  - Polychlorinated Biphenyls (PCBs)
  - Drinking Water/Pipe Systems
  - Wetlands Classification/Designation
  - Flood Zones
  
- **Environmental Attorney Statement**
  
- **Costs**





## Initial Environmental Site Investigation

### Phase I



- **Visual Inspection – Site Reconnaissance**
  - Site and/or Existing Buildings
  - Record and Document Review
  - Interviews: Agencies/Key People
  - Historic Site/Building Uses
  - Prior Construction
  - Date of Construction
- **Report Preparation**





# Questions?





## **Next Seminar – June 19, 2007**

### **Pre-Application Review**

- **CHFA Design and Construction Standards**
  - Architect and Contract Issues
  - General Contractor Contract issues
- **Design Review**
- **Schematic Drawings**
  - Site Plan
  - Floor Plans/Elevations
  - Environmental Assessment
  - Preliminary Costs
- **Site Visit/Site Evaluation**
- **Green Design Considerations**
- **Owner/Architect Agreement**
- **Owner/Contractor Agreement**

