



HUD Innovation in Affordable Housing

student design & planning competition
2018



Planning and Design Criteria

Innovation has three basic definitions: a new idea, the act or process of introducing new ideas, and the process of translating an idea or invention into a good or service that increases value. In application, the starting point for innovative design is deconstructing the design program and the owner's objectives for the project: What are we attempting to accomplish? What are the performance attributes we wish to improve? How can we improve durability, reduce energy consumption, improve resource utilization, improve indoor environmental quality, reduce environmental impact, increase community integration, increase density, improve resident quality of life, all while reducing first-cost? By analyzing and deconstructing the problem statement, and by asking the insightful questions, we place ourselves in a position to uncover, develop, and deploy innovative solutions. It is this journey that constitutes innovative design and the road competitors should travel.

The HUD Innovation in Affordable Housing competition specifically asks teams to identify and develop innovative ideas and solutions for the relocation and development of affordable housing for seniors and persons with disabilities. Innovation should be highlighted in all aspects outlined below, while balancing affordability with resource efficiency, durability, and resiliency. The dwellings should be designed for accessibility and healthy living with natural daylight and indoor environmental quality, as well as defined outdoor community and appropriate recreational spaces. The integration of advanced technologies is encouraged along with renewable and renewable-ready design.

Creative and imaginative solutions are sought. In past competitions, jurors and the public housing authority partners have been most impressed by original thinking, so don't be afraid to shoot for the moon. Teams are encouraged to create a new narrative for affordable housing, reimagining the way we plan for, design, and build affordable housing.

While teams should emphasize innovation in all aspects of their solutions, the following criteria should be investigated:

Environmental

- **Durable:** Long lasting/low maintenance requirements.
- **Healthy:** Design for occupant health, safety, and psychological well-being.
- **Energy and Water Efficient:** Design for low-energy and low-water use requirements.
- **Resource Efficient:** Efficient use of materials; rapidly renewable materials; recycled content/recyclable.
- **Low-impact:** Design that either enhances or does not significantly diminish environmental quality.
- **Resilient:** Design and construction of buildings that resist natural and man-made hazards and provide for the protection of life, safety, and security of all residents.
- **Life Cycle Assessment:** Technique to assess environmental impacts of a product over all stages of its life.

Financial

- **Funding:** Primary sources contributing to financial pro forma; understanding rules, regulations, and guidelines.
- **Leveraging:** Secondary sources making use of or combining various financial instruments, such as tax credits, to increase the potential return of an investment.
- **Cash Flow:** Explore all potential funding sources and create alternative or innovative financing plans.
- **Affordable:** Determine cost effective measures to construct and operate over the long term.
- **Initial Capital Cost:** Fixed, one-time expenses associated with development.
- **Operations and Maintenance:** Day-to-day activities required to ensure that the building, systems, and equipment perform as intended.
- **Design for Replacement:** Ease of replacing systems, equipment, or building components as they wear or fail.
- **Infrastructure Longevity:** Design to remain serviceable well beyond financing term.

Social

- **Neighborhood:** Allowing for and encouraging social interaction among residents of a distinct community and within the wider surrounding community.
- **Access to Employment and Services:** Provide or make use of existing transportation networks to link the site with commercial centers.
- **Accessible:** Readily usable by individuals with varying degrees of physical ability.
- **Sense of Community:** Emotional connections wherein residents care about the community, value their relationships to community and its members, and are invested in the future of the community.
- **Social Networking:** The ability to connect with people and places, including access to amenities, health care, and supportive services, contributes to overall well-being, helps to lower the risk of isolation, and enhances independence.
- **Sense of Place:** Creating an imageable perception of a unique or special place.
- **Sense of Control and Comfort:** Engendering individual ownership of place to promote physical and emotional well-being.

Program:

Dover Housing Authority (DHA) was established in March 1948 by the Dover City Council and was tasked with constructing and managing homes for low-income families, with a preference toward families of returning World War II veterans. In 1953, Dover’s first housing development, Mineral Park, officially opened, replacing the since razed “Piano Box Village” named for the predominant construction material in use at the shanty town. Mineral, (and later) Whittier Parks, expanded to comprise 184 dwellings. DHA has since added six more sites, and between its public housing program and its housing choice voucher program, now provides permanent housing for 877 households, including families, seniors, and individuals with disabilities.

DHA’s newest undertaking involves building a new development to serve seniors and persons with disabilities. DHA plans to sell its Central Towers and Waldron Towers facilities and develop a site presently owned by DHA to replace the dwellings in those two towers. Central Towers is located at 279 Central Avenue and contains 11 two-bedroom apartments and 59 one-bedroom apartments. Waldron Towers is located at 3 Green Street and contains 84 one-bedroom units. Both buildings are five stories and located in the downtown area overlooking Dover’s river front – a desirable redevelopment location in this fast-growing city. The Central Towers and Waldron Towers sites are presently included in a redevelopment RFP to developers for a mixed-use development. This redevelopment is **not** part of this design competition.

To replace these apartments, and as the subject of this design completion, DHA plans to construct 154 new dwellings between its Edgar Bois Terrace apartments on Niles Street, and its Nile Park apartments on Union Street, both of which also serve seniors and a disabled population. The site containing these two properties and the buildable area between them is indicated by the City of Dover to be a single parcel ([view maps](#)), so the intent is to dramatically increase the density of the site, while not rehabbing the current buildings. The designs may optionally include removal of a portion of the Niles Park residences, if those dwellings are numerically replaced within the new development.

The buildable area on the site is approximately two (2) acres, partly flat, partly wooded, with a slope towards a small stream that bisects the parcel ([view maps](#)). The site is zoned RM-U (Urban Density Multi-Residential) and zoning regulations ([view maps](#)) apply, but variances for height, setbacks, and coverage, etc. may be assumed, but must be justified.

Dwellings:

The new apartments will consist of 140 one-bedroom units and 14 two-bedroom units. The dwellings shall include accessibility and universal-design principles throughout as appropriate for the senior and disabled population. The minimum area requirement for each dwelling based on bedroom count is governed by a number of different governmental agencies. For the purposes of this competition, the minimum dwelling area requirements for new dwellings shall be:

- 1 bedroom – 500 square feet
- 2 bedroom – 750 square feet

Each of the provided units are to be self-contained family dwellings including bedrooms, kitchen and dining spaces, living areas, bathrooms, and appropriate storage spaces. In addition, a minimum amount of private use exterior living space must be provided for each dwelling. The use of front-porches, covered balconies and similar amenities, which provide for passive-surveillance opportunities as well as encouraging neighborhood interaction, is highly encouraged.

Each new dwelling should exhibit exceptional environmental performance including in energy and water use, indoor environmental quality, durability, and resiliency. Although the target level of performance is high, the budgetary constraints are real and designs must be defensible.

Common Areas:

Buildings shall include a covered front entry with lobby and mail center, a commercial kitchen, dining area large enough to accommodate 50 occupants at one time, laundry center(s) with a total of 20 washers and dryers, an exercise facility, an internet access area, and two administrative offices for social workers with an adjacent shared client-conference space. The dining space must also serve as a resident community center. Necessary building support service areas shall be provided including mechanical spaces, trash room, and maintenance shop spaces.

Site Development:

The site contains approximately 2.5 acres of developable area as shown on the site plans [[view maps](#)]. In addition to increasing density through the introduction of additional buildings, the design teams should strive to create exterior spaces and areas recognizable as distinct activity settings conducive to informal gatherings and socialization and other desirable social interactions. Integration with the existing adjacent DHA neighborhoods is desired, as is incorporating the stream as a linear park feature in the design.

Resident pedestrian pathways through the site should be well defined, functional, and pleasant to use with socialization opportunities, and formal and casual connectivity to the outdoor activity settings. Pedestrian paths in particular should be hierarchal from public to private. Vehicular access ways should integrate into the designs should be functional and compact as practical. Where pedestrian and vehicular access intersects, pedestrian paths should be visually dominant.

Site Amenities:

Fully accessible and senior-friendly amenities such as walking paths, community gardens, flower gardens, and common seating areas are desired. Congregation areas immediately outside of building entries are popular with residents and should be included.

The property should be aesthetically appealing with defensible space but without perimeter fencing. Boundary defining systems, such as walls and landscaping, need not create hard security barriers but should require that access points onto and through the site are controlled to specific points and locations, and that those access points are easily viewed from the residences within the site. These types of passive security features should be included throughout the property. Similarly, where private-use outdoor spaces exist (i.e., intended to serve one specific dwelling), landscape features should be included to delineate those spaces as not for public use.

DHA requires that on-site parking be provided for 100 vehicles.

Critical Considerations:

Successful projects will address the program, solve for the design criteria, and will respond to the following questions:

- What aspects of your design innovatively address the needs of low-income seniors and persons with disabilities?
- How does your solution respond to the site, zoning, and building code requirements or restrictions?
- How does your proposed design interact with the site?
- What innovative approaches did you employ in developing your design relative to the restrictions or opportunities presented by the site?
- What innovative energy efficiency, water conservation, and renewable energy strategies did you incorporate into your design?
- What innovative approaches did you employ in order to integrate your design into the neighborhood and community?
- How are themes of transit oriented development emphasized?
- What services and activity settings are planned and provided for to improve the quality of life for the population served?
- How are you planning to finance the project?
- What innovative financing solutions did you explore for leveraging and partnerships?
- Explain how your design and financial solutions innovatively integrate best practices and technology into your solution.

Financial Considerations:

The total budget for the project (exclusive of land costs) is thirty million dollars (\$30,000,000). Financing should consist of RAD, LIHTC (both 4% and 9%), and/or other sources with similar terms and benefits. Innovative approaches to financing will be a specific area of evaluation.

Resident eligibility is income restricted with HUD-specified income limits:

One-person	\$47,500
Two-person	\$54,400

Resident rent structure is a sliding scale based on rent of 30% of net adjusted income.

Accessibility Regulations:

Federal:

Fair Housing Amendments Act (FHA)

- In newly constructed non elevator buildings containing at least 4 dwelling units, all ground floor units must comply with the FHA’s seven design and construction requirements.
 - o Req 1: Accessible building entrance on an accessible route
 - o Req 2: Accessible public and common-use areas
 - o Req 3: Usable doors
 - o Req 4: Accessible route into and through the unit
 - o Req 5: Controls in accessible locations
 - o Req 6: Reinforced walls for the later installation of grab bars
 - o Req 7: Usable kitchens and bathrooms
- There are 10 HUD-approved ‘safe harbors’ for FHA compliance. They can be found here: <http://www.fairhousingfirst.org/faq/safeharbors.html>

Section 504 of the Rehab Act of 1973 (Section 504)

- Section 504 requires access to programs which receive HUD funding. When a newly constructed HUD-funded housing development contains at least 5 units, ‘the project’ is subject to Section 504. Housing developed by a Housing Authority is subject to Section 504. Among other requirements of the Section 504 regulations; no less than 5% of the total number of dwelling units in ‘the project’ must comply with the accessible design and construction requirements of the Uniform Federal Accessibility Standards (UFAS) or the 2010 ADA Standards for Accessible Design; these must be disbursed throughout the building(s) and site and among the various unit types available. An additional 2% of the total number of dwelling units in ‘the project’ must accommodate the needs of people with hearing and visual disabilities (H&V units). The Section 504 regulations can be found here: http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/disabilities/sect504faq; UFAS can be found here: <http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/ufas>; the 2010 ADA Standards for Accessible Design can be found here: http://www.ada.gov/2010ADAstandards_index.htm

Americans with Disabilities Act Title II (ADA)

- Title II of the ADA applies to activities of states and local governments. A housing authority is considered part of a local government. As a result, Title II applies to all housing developed by a housing authority. No less than 5% of the total number of dwelling units in ‘the project’ must comply with the accessible design and construction requirements of the 2010 ADA Standards for Accessible Design; these must be disbursed throughout the site and among the various unit types available. An additional 2% of the total number of dwelling units in ‘the project’ must accommodate the needs of people with hearing and visual disabilities. The 2010 ADA Standards can be found here: http://www.ada.gov/2010ADAstandards_index.htm

NOTE: Use of the 2010 Standards for Accessible Design in lieu of UFAS will satisfy the accessible design and construction requirements of Title II of the ADA and Section 504.

State:

The International Building Code (IBC) 2009 is the code that applies in New Hampshire. *Chapter 11: Accessibility* of the IBC 2009 includes accessible design and constructions requirements that apply to multifamily projects designed and constructed in New Hampshire.

Applicable HUD Programs:

The Rental Assistance Demonstration (RAD)

- The Housing Authority plans to use HUD’s RAD program to help finance the rehabilitation or redevelopment of the property.
- RAD allows proven financing tools to be applied to at-risk public and assisted housing and has two components:
 - 1st Component - Allows Public Housing and Moderate Rehabilitation (Mod Rehab) properties to convert, under a competition limited to 60,000 units, to long-term Section 8 rental assistance contracts; and
 - 2nd Component - Allows Rent Supplement (Rent Supp), Rental Assistance Payment (RAP), and Mod Rehab properties to convert tenant-based vouchers issued upon contract expiration or termination to project-based assistance.
- RAD is a central part of the Department's rental housing preservation strategy, which works to preserve the nation's stock of deeply affordable rental housing, promote efficiency within and among HUD programs, and build strong, stable communities.

Family Self-Sufficiency (FSS) Program

- FSS is a HUD program that enables families assisted through the Housing Choice Voucher (HCV) program and Public Housing (PH) residents...to increase their earned income and reduce their dependency on welfare assistance and rental subsidies.
- Public Housing Agencies (PHAs) work in collaboration with a Program Coordinating Committee (PCC) to secure commitments of public and private resources for the operation of the FSS program, to develop the PHA’s FSS Action Plan, and to implement the program.
- FSS was established in 1990 by section 554 of the National Affordable Housing Act, which amended Title I of the U.S. Housing Act of 1937 by adding Section 23 for the FSS program. It is a successor program to project self-sufficiency and operation bootstrap. It was modified by the Quality Housing and Work Responsibility Act (QHRWA) of 1998.
- FSS regulations are found at 24 CFR Part 984.

Housing Choice Voucher Program Section 8

- The housing choice voucher program is the federal government's major program for assisting very low-income families, the elderly, and the disabled to afford decent, safe, and sanitary housing in the private market. Since housing assistance is provided on behalf of the family or individual, participants are able to find their own housing, including single-family homes, townhouses and apartments.
- The participant is free to choose any housing that meets the requirements of the program and is not limited to units located in subsidized housing projects.
- Housing choice vouchers are administered locally by public housing agencies (PHAs). The PHAs receive federal funds from the U.S. Department of Housing and Urban Development (HUD) to administer the voucher program.
- A family that is issued a housing voucher is responsible for finding a suitable housing unit of the family's choice where the owner agrees to rent under the program. This unit

may include the family's present residence. Rental units must meet minimum standards of health and safety, as determined by the PHA.

- A housing subsidy is paid to the landlord directly by the PHA on behalf of the participating family. The family then pays the difference between the actual rent charged by the landlord and the amount subsidized by the program. Under certain circumstances, if authorized by the PHA, a family may use its voucher to purchase a modest home.

Other Applicable Federal Programs:

LIHTC

- The Low-Income Housing Tax Credit (LIHTC) program uses tax policy to help develop affordable rental housing for low and very low-income families. Originally part of the Tax Reform Act of 1986, the LIHTC program leverages private capital and investor equity to support the development of new and rehabilitated affordable rental housing.
- In general, state governments can adapt the LIHTC program to meet their housing needs under broad federal guidelines.
- The private sector carries all development and marketing risk and enforces strong oversight and accountability. Investors only get to claim and keep the tax credits if their units are built, leased and maintained as affordable housing throughout a 15-year compliance period.
- Many states enforce a 15-year extended-use period to require that properties stay affordable beyond the first 15 years.
- States use a competitive process to award developers with credits.