



**Housing Finance
Agency**

2027 Design & Architectural Standards

Second Draft – ~~May~~August

Office of Multifamily | Effective December 1, 2026

Seeking to Provide Input?

OHFA will be accepting comments on these draft standards beginning Thursday, August 20, 2026 through Thursday, September 3, 2026 at 5:00 p.m. Eastern Time. Comments may be submitted via e-mail to DAS@ohiohome.org.

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General Requirements

G1. Introduction

OHFA's intent in implementing Design & Architectural Standards is to provide a set of guidelines for developers that promotes our mission to create and preserve safe, decent, affordable housing for low- and moderate-income Ohioans. The four principles that shape the DAS are:



Affordability

Improve energy & resource efficiency to reduce utility costs to the project and residents. Minimize future tenant damage, in concert with Durability goals below.



Durability

Promote the use of durable materials that reduce day-to-day maintenance costs, and prioritize replacement of essential systems during rehabilitation.



Quality of Life

Create safe and healthy living conditions, in an environment that upholds the dignity and worth of residents. Enhance & respect the fabric of the local community.



Accessibility

Address the need for more units that can accommodate those with disabilities or mobility challenges. Encourage architectural adaptations beyond the code minimum.

Within this framework, OHFA endeavors to create standards that thoughtfully balance mission and cost considerations, while creating flexibility that allows applicants to support the unique needs of their residents.

Applicability

The following Design and Architectural Standards (DAS) apply to all Ohio Housing Finance Agency (OHFA) funded projects. Sections beginning with "G" apply to all projects, sections beginning with "N" apply to new construction and adaptive re-use projects, and sections beginning with "R" apply to rehabilitation. *Italic blue text* within the guidelines identifies requirements that are specific to Affordable Assisted Living (AAL), and apply to AAL projects in addition to all other standards.

The DAS represents the minimum requirements necessary to receive OHFA funding; requirements may be increased or modified by a program-specific guideline or an incentive. Applicants should consult the relevant program guidelines for further information. The DAS under which the project was approved for funding must be used from application throughout compliance.

Notice & Disclaimer

All requirements are exclusive of federal, state, and local law or regulation that may further dictate design requirements. If there is a conflict between the requirements of applicable codes and/or the DAS, the most stringent requirement will prevail. The DAS is subject to modification pending developments in federal, state, and OHFA policy.

Nothing in the DAS should be construed to waive, override, modify, or extinguish any legal or regulatory responsibility, including those governing accessibility issues. OHFA does not certify project adherence to building code or other legal or design requirements. OHFA does not, by the execution or performance of any architectural review function, assume liability or otherwise become responsible for any owner, developer, architect, construction contractor or other person's obligation. Applicants and funding recipients are explicitly advised to seek independent legal advice regarding non-OHFA design and construction requirements particularly as they relate to accessibility.

G2. Definitions

Unless otherwise noted, all definitions must bear the same as the applicable building code.

Adaptive Reuse: See [Construction Categories](#)

Assemblies: A portion of a building system, piece of equipment, or building element.

~~**Circulation Space:** The path inside a building for access to living units, storage areas, common areas, ingress and egress areas, and other spaces designed for resident use.~~

- ~~• **Examples:** Hallways, stairways, and areas that lead to other rooms~~

~~**Common Space:** A room or space outside the residential living unit designed for resident use that does not presuppose a usage fee or participation in an activity for free enjoyment of the space.~~

- ~~• **Examples:**~~

- ~~○ Circulation space—hallways, elevators, lobby, etc.~~
- ~~○ Community space—meeting rooms, community rooms, lounges, mail rooms, community dining rooms, etc.~~
- ~~○ Property management space—management offices~~

~~**Dedicated Program Space:** A room or space outside the residential living unit designed exclusively for tenant use that has a fixed activity or program-driven purpose. These spaces are not considered part of Common Space.~~

- ~~• **Examples:** Counseling space, wellness and health clinic areas, day care centers, puzzle/game rooms, libraries, fitness rooms, hair salons, computer rooms, commercial kitchens for AAL residents, AAL staff laundry areas and housekeeping closets~~

Design and Construction Features Form (DCF): The form submitted with the application that states all of the design-related features that will be included in the project. Compliance throughout the rest of the project period is checked against this information. The DCF can be found online on OHFA's website under Forms on the specific webpage for the funding round being sought at [Guidelines, Applications and Forms](#).

Expected Useful Life (EUL): The average amount of time in years ~~that~~ an item, assembly, component, or system is estimated to function without material repair when installed new and assuming routine maintenance is practiced. This is also used as the standard for new material durability/acceptability in rehabs, adaptive reuse, and new construction. A new material must conform to the applicable expected useful life as defined in the EUL table.

~~**Net Rentable Area:** The sum of the unit area, balcony area, garage (if included with the unit) and tenant storage area.~~

New Construction: See [Construction Categories](#)

Physical Capital Needs Assessment (PCNA): An inspection and resulting report for a property that provides detail on the property's current overall physical condition and identifies immediate physical needs, significant deferred maintenance, and an opinion of costs to remedy physical deficiencies. EUL values are used in a Capital Needs Assessment when assessing the current condition. Remaining useful life (RUL) is used to evaluate existing materials in meeting OHFA required durability.

Project: The whole of one or more residential structures and appurtenant structures, equipment, roads, walks, and parking lots which are covered by a single application for OHFA funding, or are treated as a whole for processing purposes, whether or not located on a common site.

Remaining Useful Life (RUL): Subjective estimate based upon observations, or average estimates of similar items, assemblies, components, or systems, or a combination thereof, of the number of remaining years that an item, assembly, component, or system is estimated to be able to function in accordance with its intended purpose before warranting replacement. Such period of time is affected by the initial quality of an item, assembly, component, or system, the quality of the initial installation, the quality and amount of preventive maintenance exercised, climatic conditions, and extent of use.

Rehabilitation: See [Construction Categories](#)

Scope of Work Form (SoW): The form submitted with the application is used to define all major building materials and systems for ~~new construction~~, rehabilitation, and adaptive reuse. The SoW can be found on ~~OHFA's website under Forms on the specific webpage for the funding round being sought online at~~ [Guidelines, Applications and Forms](#).

~~**Support Space:** A room or space outside the residential living unit that is not intended for resident use.~~

- ~~• **Examples:** Mechanical areas, janitor closets, security offices, fire control stations, supply and mechanical storage areas~~

Construction Categories

The following construction categories relate solely to the application of these Guidelines and shall not be used to define project requirements or scopes outside of the criteria defined in these Guidelines.

- **New Construction:** Ground-up construction of a new building or buildings. Includes site preparation for, and construction of, entirely new structures whether or not the site was previously occupied.
- **Moderate Rehabilitation A*:** A renovation where the dwelling unit demising walls and most interior walls remain, and the new scope of work is built within the existing dwelling unit compartment. A project that is Moderate Rehab A includes the majority replacement of one Major Building System (See [Minimum Scope of Work](#)) and partial replacement of any or all other building systems, as dictated by the building condition and evaluation of RUL in the PCNA report.
- **Moderate Rehabilitation B*:** A renovation where the dwelling unit demising walls and most interior walls remain, and the new scope of work is built within the existing dwelling unit compartment. A project that is Moderate Rehab B includes the majority replacement of at least two Major Building Systems (See [Minimum Scope of Work](#)) and partial replacement of any or all other building systems, as dictated by the building condition and evaluation of RUL in the PCNA report.
- **Substantial Rehabilitation*:** A renovation where the majority of the interior walls, finishes, systems and MEP infrastructure are demolished, and a new scope of work is constructed within the existing building shell. These projects are also sometimes referred to as "gut" rehabs.

- **Adaptive Reuse:** A substantial renovation that occurs in a building or space that undergoes a change of use to residential occupancy, as defined by the applicable building code. ~~If the building has undergone a change of use to residential occupancy less than 24 months prior to the submission of application to OHFA, it will be considered an Adaptive Reuse.~~

* OHFA requires ~~that~~ applicants identify their rehab project as either Moderate Rehabilitation A, Moderate Rehabilitation B, or Substantial Rehabilitation. This identification assists with data collection and may be tied to incentives in specific competitive programs.

~~OHFA~~ Square Footage Calculation

Developments must use the following standards for measuring square footage:

Multifamily buildings:

Building Owners and Managers Association (BOMA) – BOMA 2023 for Multi-Family and Hospitality Properties, Gross Method (ANSI/BOMA Z65.4)

Single-family, 1, 2, or 3-family dwelling, or townhome buildings:

BOMA - Gross Areas Standard (ANSI/BOMA Z65.3)

The area calculations ~~for either of the above~~ must include 100% of the building in which the project is contained regardless of whether that space is leased or condominiumized to another entity, and includes:

- All buildings, including those without Building Identification Numbers (BINs)
- Free-standing community buildings
- Maintenance buildings and sheds
- Picnic shelters/gazebos
- Garages
- Carports
- Porches

The building area calculation should not include:

- Trash enclosures
- Concrete patios without roofs
- Sidewalks

~~All square footage must be calculated and certified in the AHFA and the DCF by the Architect of Record.~~

G3. Codes and Compliance Standards

All developments must conform to the below requirements:

Buildings with four or more units:

- [Ohio Administrative Code 4101:1 Board of Building Standards: Ohio Building Code \(OBC\)](#), including any and all referenced codes.

Buildings with three or fewer units:

- [Ohio Administrative Code 4101:8 Board of Building Standards: Residential Code of Ohio \(RCO\)](#), including any and all referenced codes.

Industrialized Units (OBC or RCO):

- [Ohio Administrative Code 4101:10 Ohio Industrialized Unit Rules \(IU\)](#)

All developments must also conform to the requirements set forth in the following, as applicable:

- ~~Ohio Department of Development Residential Rehabilitation Standards (RSS)~~
- [HUD's National Standards for the Physical Inspection of Real Estate \(NSPIRE\)](#)
- Local codes, zoning codes, and fire codes as required by the jurisdiction or funding source.
- If receiving funding from the **HOME Investment Partnerships Program**, developments must meet all requirements as outlined in [24 CFR §92.251 – Property Standards](#).
- If receiving funding from the **National Housing Trust Fund**, developments must meet all requirements as outlined in [24 CFR §93.301 – Property Standards](#).
- If receiving funding from the **Community Development Block Grant – Disaster Recovery program**, developments must meet all requirements as outlined in [83 FR 5844](#)
- *Affordable Assisted Living (AAL) projects must conform to the design requirements for Residential Care Facilities in [O.A.C. Rules 3701-16](#), including but not limited to O.A.C. Rules 3701-16-13, 3701-16-14, 3701-16-15, and 3701-16-16. Residents must be allowed access to enter and exit the facility at will.*

All drawings and specifications must be prepared under direct supervision of an Ohio Licensed (active and current) Architect in accordance with the Architectural Practice Act, ~~bear the license number of the architect, and if the architect is part of any business structure other than a sole proprietorship, he or she must include the Project Design Firm registration number on the drawings. The drawings are required to be signed and sealed by the Architect of Record.~~

G4. Adaptability & Accessibility Laws

Developments may be subject to one or more of the below accessibility laws, depending on the date of construction, type of space, funding sources utilized, and other project-specific information. The burden of compliance rests with the project team. Owners/developers and/or architects will be required to certify to OHFA that they have complied with applicable regulations.

Additionally, all projects must to comply with the accessibility requirements as outlined in the [Ohio Building Code, Chapter 4101:1-11](#), which includes the use of ANSI/ICC A117.1-2017 for ~~the design~~

~~and construction of accessible units~~ new construction & additions, and ANSI/ICC A117.1-2009 for alterations & change of occupancy.

When more than one law and accessibility standard applies, that requirement takes precedence which affords greater accessibility.

Americans with Disabilities Act (ADA), Title III

- Applicable to common areas open for public use, such as a property management or rental office.

Fair Housing Amendments Act of 1988 (FHA)

- Applicable to all new multi-family housing consisting of four or more dwelling units per building built for first occupancy after March 13, 1991.
- Applicant must identify a single safe harbor that will be used to demonstrate compliance with the Act's design and construction requirements.

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

- While typically applicable to recipients of federal financial assistance, OHFA requires that all developments receiving ~~OHFA~~ funding through OHFA meet the accessibility design requirements of Section 504. **See further OHFA requirements related to Section 504 in the next section: OHFA Accessibility Requirements.**
- Section 504 applies to the entire project including all sites, all buildings, designated residential units, all common areas, and all site features. Applicant must identify a single accessibility standard for compliance with Section 504 requirements: either the Uniform Federal Accessibility Standards (UFAS), the 2010 ADA Standards for Accessible Design with identified exceptions (see HUD's 2014 Deeming Notice), or an equivalent standard as permitted per 24 CFR 8.32.
- If the design of a facility was commenced before July 11, 1988, OHFA will grant exceptions to full compliance with Section 504 that are in line with HUD's direction in 24 CFR 8.32, establishing that the provisions of 24 CFR 8.23 shall be followed to the maximum extent practicable. This is subject to review and approval by OHFA.

504 Unit Types

- Mobility Units: Units that are ~~fully~~ accessible for persons with mobility disabilities.
 - ~~All 504 units, including Mobility, must be provided in a variety of unit configurations and distributed throughout the development and buildings. When units are on multiple floors, distribution includes units on multiple floors. The distribution neither precludes nor requires an accessible unit on all floors.~~
- Sensory Units: Units that are accessible for persons with hearing or visual disabilities. Required features include*:
 - Hard-wired doorbell systems for entry. Audio/visual notification devices are required in all habitable spaces (e.g. living rooms, bedrooms, and bathrooms). Where doorbell signals are located in sleeping areas, they shall have controls to deactivate the signal.
 - Physical peephole at the main entry to the unit, providing a minimum 180-degree range of view.

- Audio/visual notification devices for life safety systems.

**Note that while Section 504 of the Rehabilitation Act dictates the requirement for sensory units, it does not clearly define what is required in a sensory unit; neither does UFAS. OHFA has composed these requirements based on guidance from ANSI A117.1-2017 and the 2010 ADA Standards for Accessible Design.*

G5. OHFA Accessibility Requirements

Number of Section 504 Mobility Units

According to the latest census estimates from 2024, approximately 7% of Ohioans report having an ambulatory difficulty, and for Seniors the share rises to nearly 20%. Those numbers are almost certainly higher in the population needing low-income housing: the same census data shows the median income for those with a disability is only 65% of the median income for those without a disability. OHFA can play an important role in closing the gap between the need & availability of accessible units.

Depending on construction category and population served, OHFA requires that a certain number of dwelling units meet Section 504 requirements for persons with mobility and sensory impairments:

- Affordable Assisted Living (New Construction/Adaptive Reuse/Rehab):
 - 20% of units must meet Section 504 Mobility standards.
 - 10% of units must meet Section 504 Sensory standards.
- Seniors (New Construction/Adaptive Reuse) & Tenants w/ Special Housing Needs (New Construction/Adaptive Reuse):
 - 10% of units must meet Section 504 Mobility standards.
 - 2% of units must meet Section 504 Sensory standards.
- General Occupancy (New Construction/Adaptive Reuse) and all ~~AH~~ Rehab except for AAL:
 - OPTION A: 10% of units must meet Section 504 Mobility standards.
 - or
 - **OPTION B:** 5% of the dwelling units must meet Section 504 Mobility standards and another 5% must meet the requirements for *Semi-ambulatory units* as defined here:
 - *Semi-ambulatory units* are intended to serve people with crutches, canes & walkers. Requirements include: stair and ramp handrails with compliant extensions (if applicable), compliant stair nosings, compliant grab bars at toilets and tubs/showers, compliant accessible entry and accessible path through the unit. In units with showers, a compliant shower seat must be provided. In all cases, “compliant” refers to compliance with the project’s selected accessibility standard for Section 504 compliance. Task- or day- lighting must be provided at kitchen sink and range. Where at least one parking space is provided for each dwelling unit, at least one accessible parking space is required to be located in proximity to the entry for each semi-ambulatory unit.
 - or
 - **OPTION C:** 5% of the dwelling units must meet Section 504 Mobility standards and another 5% must meet the requirements for *Flex units* as defined here:
 - *Flex units* are intended to allow developers the greatest flexibility to choose how to best serve their resident population. Applicant should-must submit a proposal for a unit that is designed to exceed Fair Housing requirements and serve a specific population(s) of residents (e.g. persons with sensory processing issues, intellectual & developmental disabilities, learning disabilities, chronic illness, mobility or sensory impairment, etc.) The evaluation and acceptance of these proposals is at OHFA’s discretion.
 - and

○ 2% of units must meet Section 504 Sensory standards.

○

Additional Features for 504 Mobility Units

OHFA recognizes that the demographic of wheelchair users has changed in many ways since the implementation of Section 504 in 1973. To a large extent, the requirements of Section 504 are only a minimum threshold and are not sufficiently meeting the daily needs of those with a ~~serious~~ mobility impairment.

In addition to following the requirements of the project's selected accessibility standard for Section 504 compliance, applicant must select the indicated number of additional features* from each column to **provide in all 504 Mobility units** (including Mobility units in addition to beyond the federally required 5%, but not including Semi-ambulatory units, and not including Flex units unless described in the Flex unit proposal):

Column A 1 – pick one	Column B – pick one	Column C – pick four
<u>(Alternative option for Rehab – pick two from Column B)</u>		<u>(Rehabs pick three)</u>
Range/cooktop does not exceed nominal 34" in height	Pull-out drawers or pull-out pot organizers in multiple base cabinets	Cooktop adjacent to sink (on contiguous counter, no more than 4ft away measured edge to edge)
Oven with side-opening door	Wall oven	Full height pantry
Auto operator at unit entry	Roll-under cooktop	Side-by-side refrigerator
Entry door with fob/card reader, key pad, or lock box for easier caregiver entry	Kitchen sink with "enhanced reach range" as defined in ANSI A117.1-2017 Section 606.5 (and exceptions 1 & 2)	<u>In-wall blocking designed to accommodate future grab bars for children or adults of shorter stature (below the blocking already required by Fair Housing) Space designated for wheelchair charging in appropriate location with appropriate electrical outlets</u>
Stair lift (in multi-story units)	Pull-down storage in multiple upper cabinets	Ice and water dispenser within reach range
<u>Kitchen clearance (between counters / appliances) that is 4" wider than ANSI A117.1 requires</u>	Eat-at peninsula or island in kitchen with overhang and room for at least two wheelchairs	Swing-up grab bar on open side of toilet, meeting ANSI A117.1-2017 609.8 for structural strength
<u>Free concierge service for trash pickup made available to resident</u> <u>Column A2 – pick one (whole building)</u>	Auto operator at all common area trash chute room doors	Dishwasher
More than one elevator serving building	Remote control of thermostat by resident <u>(e.g. by phone app)</u>	<u>Kitchen sink with pull-out faucet</u>
Permanent generator that provides power to elevator <u>(or document that city has redundant power grid)</u>	Double acting hinge, pocket <u>Pocket</u> or barn door at all passage doors	Storage in bathroom <u>within the reach range</u> (e.g. for healthcare supplies)
Playground or splash pad designed for wheelchair-inclusive play	42" wide leaf for all passage doors	Manual pull <u>device</u> to close door on all passage doors within unit and any exterior doors
		Grab bars installed at toilets and tubs/showers

Casement windows with all operating hardware within reach range	Washer/dryer by owner in unit meeting the project's chosen accessibility standard for Section 504	Closets with no doors; install curtain rods instead (rehab must remove any residual door hardware)
<u>Minimum 60" wide clearance at water closet with no fixture overlap, to facilitate transfer from wheelchair.</u>	<u>Side-by-side refrigerator/freezer</u>	Pull-out work surface near the oven, refrigerator or microwave

*OHFA will accept proposed accessibility features beyond in lieu of those on the provided list that are relevant and necessary to the applicant's development; see Design & Construction Features Form. The applicant will be required to clearly describe the additional feature(s) and provide justification for the comparability in cost and value to the other items in the column. The evaluation, acceptance, and classification of these items is at OHFA's discretion.

Important Reminders**Nondiscrimination**

- Section 504 units must be provided in a variety of unit configurations and distributed throughout the development and buildings. If a building has dwelling units on multiple floors served by an elevator, Section 504 units (including Mobility) must be provided on multiple floors in line with guidance from the U.S. Department of Housing and Urban Development.
- Accessible units ~~must have comparable~~may not have reduced features compared to non-accessible units; for example, they must provide equivalent finishes, appliances of equal or greater quality and capacity, and ~~including~~ counter space and storage comparable to what is provided in non-accessible kitchens & bathrooms.
 - Storage ~~should~~must be compared assuming removable base cabinets will be removed, and only considering storage within reach range in accessible units. *Exact equivalency in linear feet is encouraged but not expected. Adding a 15" wide pantry cabinet in accessible unit kitchens is one recommendation for ensuring comparable storage.*
- An accessible route to and accessible use of the dumpster is required unless the building includes an interior trash chute or trash room for residents, and residents are therefore not required to take their trash to a dumpster outside of the building.

G6. Lead-Based Paint Hazard Reduction

OHFA is committed to the reduction of lead-based paint hazards in housing throughout Ohio. Deteriorating lead-based paint and its resulting lead dust are the most common causes of elevated blood lead levels in children in Ohio. Because of Ohio's aging housing stock, many residents are susceptible to lead hazards. Over 25% of housing units in Ohio were built before 1950, when the first laws banning lead-based paint were enacted. Over two-thirds of housing units in Ohio were built in 1979 or earlier, pre-dating the federal ban on lead in house paint.

Applicability

The requirements in this section apply to all properties seeking OHFA funding for rehabilitation or adaptive reuse of a structure constructed prior to 1978.

Certain properties are exempt; developer must submit documentation of one of these three conditions as an exception request:

- Properties found not to have lead-based paint during earlier testing that met the requirements of HUD 24 CFR 35, section 35.165 for prior evaluations.
- Properties where all lead-based paint has been identified and removed using approved methods.
- Properties in an area where state and local governments banned lead-based paint prior to January 1, 1978, and the structure was constructed after the ban.

Additionally, certain federal and state funding sources already require developments utilizing their funding to adhere to program-specific requirements for the reduction of lead-based paint hazards. Developments subject to these program-specific requirements should continue to follow the applicable guidance related to lead-based paint.

Requirements

Developments must comply with the requirements outlined in the **HUD Lead Safe Housing Rule** (24 CFR 35), specifically subparts A, B, J, and R as well as any other subparts applicable to the project. In general, this means projects must:

- Conduct an evaluation of lead-based paint hazards (i.e., a risk assessment, paint inspection, or a combination of the two).
 - Properties in good condition may choose to first conduct a lead hazard screen to determine whether a full risk assessment is necessary.
- Control identified lead hazards per Ohio Department of Health and HUD hazard reduction requirements.
- Pass clearance testing of work area prior to re-occupancy.
- Inform occupants of evaluation and hazard control activities and results and provide the HUD/EPA Lead Hazard information disclosure pamphlet.

Develop a lead hazard control plan for the property which includes an ongoing lead-safe maintenance program. Additionally, developments must meet all other local, state, and federal requirements related to lead-based paint as may apply including those related to disclosure, professional qualifications, lead-safe work practices, etc.

G7. Radon Reduction and Prevention

Radon is a cancer-causing, radioactive gas. Radon can get into the air in buildings by traveling through the ground and through seams, joints, utility penetrations, and cracks in building foundations and slabs. Eventually, it decays into radioactive particles that can become trapped in the lungs when inhaled. As these particles decay, they release radiation that can damage lung tissue and lead to lung cancer.

The U.S. Environmental Protection Agency (EPA) has divided counties into three radon risk zones. All of Ohio falls into either Zone 1 or Zone 2, indicating predicted radon levels that the EPA recommends

homeowners fix (Zone 1 predicted levels) or consider fixing (Zone 2 predicted levels). Given the substantially lower cost of incorporating passive radon systems during construction versus adding them post-construction depending on radon test results, OHFA has adopted the following requirements.

Applicability

The requirements in this section apply to all OHFA-funded projects. Additionally, certain federal and state funding sources already require developments utilizing their funding to adhere to program-specific requirements for radon testing and mitigation (for example, any development subject to HUD's environmental review regulations at 24 CFR Part 50 and Part 58). Developments subject to these program-specific requirements should continue to follow the applicable guidance related to radon.

Radon testing, mitigation, and laboratory work for developments to be funded with OHFA resources must be performed by individuals who meet the certification and licensure requirements as outlined in OAC 3701-69. The most current testing standard for the applicable building type, as of the date the testing occurs, must be followed: **EPA's Current Radon Standards of Practice**

Requirements

Developments must incorporate radon-resistant construction techniques into their project. Radon-resistant construction techniques might include:

- a gas permeable layer such as gravel beneath the lowest building floor slab,
- a vapor retarding layer on top of the permeable layer,
- a vertical vent pipe from the permeable layer through the roof or exterior wall to vent outside,
 - (all vent piping must be located and designed for minimal effect on building appearance)
- sealing and caulking of all cracks, joints and penetrations in the slab or basement, and
- installation of a junction box in the attic or highest interior space for use with an in-line suction fan if one is required for future active removal of radon.

Once construction/renovation is complete, but prior to occupancy, radon testing must be conducted in accordance with the current ANSI/AARST testing standards for the applicable structure. This includes testing in 100% of all ground-contact dwelling units and non-residential ground-contact rooms, as well as 10% of the upper floor dwelling units (with at least one unit tested on each floor) to determine the need for installation of exhaust fans (i.e. "active" removal).

If any sample result from the post-construction sampling meets or exceeds 4.0 pCi/L of radon, exhaust fans must be installed to convert the passive radon removal systems to active removal systems. Any area with test results above the action level must be retested after installation of fans until satisfactory results are obtained.

Rehabilitation Projects with pre-construction test results below 4.0pCi/L may ask for an exception from preemptive installation of a radon mitigation system; developer must submit documentation of testing results with the exception request. If the highest result of testing conducted before construction is between 2 and 4 pCi/L, it is recommended that a passive system is still installed in all impacted areas (as a building becomes more airtight during construction, the level of radon is more likely to increase).

Regardless of any exception granted, radon testing after construction but before occupancy is required. Testing must be conducted in accordance with the current ANSI/AARST testing standards for the applicable structure. If any result from the post-construction testing is at or above the threshold (4.0 pCi/L) a passive radon system must be installed in the impacted area, and the area must be retested after installation and the radon system adjusted (including installing exhaust fans to convert the passive system to an active system) until satisfactory results are obtained.

G8. Broadband Infrastructure

All developments must install broadband infrastructure in compliance with **Federal Register 81 FR 31181 “Narrowing the Digital Divide through Installation of Broadband Infrastructure”**. Installation must result in speeds in each unit (living or dining room and each bedroom) and all common areas meeting the Federal Communications Commission's **Fourteenth Broadband Deployment Report** or the speed required to qualify as Tier 2 broadband service under **Ohio Revised Code 122.40**, whichever speed requirement is higher at the time of generating pre-construction estimates. Owners are not required to pay for tenants’ service but must provide free access in all common areas (exclusive of circulation space) through the Extended Use Period (does not apply to developments in areas that lack adequate broadband service according to the most recent Federal Communications Commission maps).

Guidelines for New Construction & Adaptive Reuse

N1. Applicability

The Guidelines for New Construction, in addition to the General Requirements above, apply to the ground-up construction of a new building(s) as well as projects defined as Adaptive Reuse.

~~N2. Radon Reduction and Prevention~~

~~Applicability~~

~~The requirements in this section apply to all OHFA funded New Construction. Additionally, certain federal and state funding sources already require developments utilizing their funding to adhere to program-specific requirements for radon testing and mitigation (for example, any development subject to HUD's environmental review regulations at 24 CFR Part 50 and Part 58). Developments subject to these program-specific requirements should continue to follow the applicable guidance related to radon.~~

~~Radon testing, mitigation, and laboratory work for developments to be funded with OHFA resources must be performed by individuals who meet the certification and licensure requirements as outlined in OAC 3701-69. The most current testing standard for the applicable building type, as of the date the testing occurs, should be followed: EPA's Current Radon Standards of Practice~~

~~Requirements~~

~~Developments must incorporate radon-resistant construction techniques into their project. Radon-resistant construction techniques include:~~

- ~~• a gas permeable layer such as gravel beneath the lowest building floor slab,~~
- ~~• a vapor retarding layer on top of the permeable layer,~~
- ~~• a vertical vent pipe from the permeable layer through the roof to vent outside,
○ (all vent piping must be located and designed for minimal effect on building appearance)~~
- ~~• sealing and caulking of all cracks, joints and penetrations in the slab or basement, and~~
- ~~• installation of a junction box in the attic or highest interior space for use with an in-line suction fan if one is required for future active removal of radon.~~

~~Once construction/renovation is complete, but prior to occupancy, radon testing must be conducted in accordance with the current ANSI/AARST testing standards for the applicable structure. This includes testing in 100% of all ground-contact dwelling units and non-residential ground-contact rooms, as well as 10% of the upper floor dwelling units (with at least one unit tested on each floor) to determine the need for installation of exhaust fans (i.e. "active" removal).~~

~~If any sample result from the post-construction sampling meets or exceeds 4.0 pCi/L of radon, exhaust fans must be installed to convert the passive radon removal systems to active removal systems. Any area with test results above the action level must be retested after installation of fans until satisfactory results are obtained.~~

~~N3.N2.~~ OHFA Design Requirements

These requirements are specific to OHFA. They are in addition to all other applicable local and state codes, including those governing accessibility.

N2.1. Site Design

~~N2.1.1. Proposed sites for new construction must meet the requirements in 24 CRF 988.55(e).~~

~~N2.1.2.~~**N2.1.1.** All main entries must have a roof, awning, or overhang over the entry area. Covering must be a minimum of 30" in depth (54" in depth for mobility units) and at minimum match the width of the entry door(s).

~~N2.1.3.~~**N2.1.2.** ~~Provide landscaping, which at a minimum must include grass or ground cover~~Ensure exterior areas have grass or other ground cover so that no bare soil is left exposed. Existing trees ~~should~~must be maintained where possible.

~~N2.1.3.1.~~**N2.1.2.1.** Project landscaping must not use species identified by the Ohio Department of Agriculture or Ohio Department of Natural Resources as invasive in Ohio. ~~During construction, measures must be implemented to remove invasive species and prevent their re-establishment.~~

~~N2.1.4.~~**N2.1.3.** All new sidewalks along the accessible route must be a minimum of 5-feet in width, which is the space required for a wheelchair to turn around or two wheelchairs to pass per most accessibility guidelines.

~~N2.1.5.~~**N2.1.4.** For single family dwellings, sidewalks from a front door must connect to a driveway or public route.

~~N2.1.6.~~**N2.1.5.** Stormwater management areas must be provided with recognized design measures to ensure safety for children and other residents of the project or the surrounding neighborhood. Overflow and drainpipes must have safety grating.

N2.2. Building Design

~~N2.2.1. The maximum common area, using the Common Space definition for what constitutes common area, must not exceed 20 percent of the total gross building square footage.~~

~~N2.2.2.~~**N2.2.1.** Common area hallways must be a minimum of 42" in width.

~~N2.2.3.~~**N2.2.2.** Building and all dwelling units must have no-step entry (1/2" or less) at main entrance.

~~N2.2.4.~~**N2.2.3.** Elevators

~~N2.2.4.1.~~**N2.2.3.1.** All developments that exceed three stories must have an elevator accessible to all residents.

~~N2.2.4.2.~~**N2.2.3.2.** If the population served under the program funding agreement is Seniors, or Tenant Population with Special Housing Needs category (i) populations with a disability, or Tenant Population with Special Housing Needs category (iii) expectant mothers, the development ~~Developments serving seniors or a PSH population with a high rate of disability~~ must not exceed one story unless the building has an elevator accessible to all residents. This requirement does not apply to single-family homes, 1-, 2-, or 3-family dwellings, or townhouses.

~~N2.2.5.~~**N2.2.4.** Laundry

~~N2.2.5.1~~~~N2.2.4.1~~. If laundry facilities are not provided on-site, all affordable units must include washer and dryer hookup. *This requirement does not apply to Affordable Assisted Living if laundry service is included for all residents.*

N2.3. Unit Sizes

N2.3.1. All affordable units must meet the following minimum size requirements:

N2.3.1.1. 0-bedroom/Efficiency units (i.e. studio, efficiency): 400 square feet

~~N2.3.1.1.1.~~ *Service Enriched: 350 square feet*

~~N2.3.1.1.1.~~~~N2.3.1.1.2.~~*Assisted Living: 350 square feet*

N2.3.1.2. 1-bedroom units: 550 square feet

~~N2.3.1.2.1.~~ *Service Enriched: 450 square feet*

~~N2.3.1.2.2.~~ *Assisted Living: 450 square feet*

N2.3.1.3. 2-bedroom units: 750 square feet

N2.3.1.4. 3-bedroom units: 950 square feet

N2.3.1.5. 4+ bedroom units: 1,100 square feet

N2.3.2. Single-room occupancy units (SROs) are ~~not only permitted if the population served under the program funding agreement is a Tenant Population with Special Housing Needs permitted.~~

N2.3.3. Senior Developments may not have any unit larger than two bedrooms. *AAL projects may not have any unit larger than one bedroom.*

N2.3.4. All ~~affordable~~-units must include adequate storage space for ~~unit~~-residents. Length of storage must be clearly dimensioned on unit plans:-

N2.3.4.1. At least 6 LF of hanging storage for Efficiency and 1-bedroom units, plus an additional 4 LF for every additional bedroom

N2.3.4.2. At least 2 LF of full-height shelving in a hall or bathroom

N2.3.4.3. At least 3 LF of kitchen base or pantry cabinets (not including removable cabinets)

N2.3.5. *For Affordable Assisted Living, 100% of residential units must be on an accessible level on an accessible path and must have an accessible path throughout the unit.*

~~N2.4. Bedroom Sizes~~

~~N2.5.0.~~ All affordable unit bedrooms must meet the following minimum size requirements:

~~N2.6.0.0.~~ Primary bedroom: 120 square feet

~~N2.7.0.0.~~ Secondary bedrooms: 100 square feet

~~N2.8.0.~~ Closets are excluded from the required minimum bedroom sizes identified above.

~~N2.9.0.~~ At a minimum, three and four bedroom affordable units must support double occupancy in each bedroom under local zoning and building requirements.

~~N2.10.~~~~N2.4.~~ Bathrooms

~~N2.10.1.~~~~N2.4.1.~~ Affordable units must provide a minimum number of bathrooms based on unit size:

~~N2.10.1.1.N2.4.1.1.~~ 0-bedroom/Efficiency units (i.e. studio, efficiency): 1 full bathroom

~~N2.10.1.2.N2.4.1.2.~~ 1-bedroom units: 1 full bathroom

~~N2.10.1.3.N2.4.1.3.~~ 2-bedroom units: 1 full bathroom

~~N2.10.1.4.N2.4.1.4.~~ 3-bedroom units: 1.5 bathrooms

~~N2.10.1.5.N2.4.1.5.~~ 4+ bedroom units: 2 full bathrooms

N2.10.2.N2.4.2. Multi-story townhomes must have a visitable toilet room, as defined in ANSI A117.1-2017 Section 1105.6, on the accessible floor.

N2.10.3.N2.4.3. All 504 mobility units provided must have one roll-in shower.

~~N2.10.3.1.N2.4.3.1.~~ If a trench drain is not provided at the threshold of the roll-in shower, then a floor drain must be provided outside of the shower. When a floor drain is used, it must be approximately at the center of the open floor.

N2.10.4.N2.4.4. Handles are required on drawers and cabinets, and must allow for one-handed operation without tight grasping, pinching, or twisting of the wrist~~Provide loop handles on drawers and cabinets.~~

N2.10.5.N2.4.5. In order to prevent injury, PLAM countertops may must not have sharp 90-degree corners, in case of a bathroom fall. Either chamfer or radius the corner, or provide a modified profile (beveled, eased, ogee, bullnose, etc.) at the front edge. OHFA does not require any specific profile or dimension of radius, but a detail must be included with the 80% drawing submission. No countertop material besides PLAM is governed by this requirement.

N2.10.6.N2.4.6. *For Affordable Assisted Living, 100% of resident bathrooms must be designed to meet Section 504 for mobility units, including a roll-in shower.*

N2.11.N2.5. Kitchen & Appliances

N2.11.1.N2.5.1. All affordable-dwelling unit kitchens must include:

~~N2.11.1.1.N2.5.1.1.~~ Either a stand-alone range that is at least 30-inches wide or a cooktop and wall oven.;

~~N2.5.1.1.1.~~ For Service Enriched developments that provide meals for residents, a microwave (or other cooking appliance) with a dedicated 20-amp outlet may be provided instead.

~~N2.11.1.1.1.N2.5.1.1.2.~~ *For Affordable Assisted Living, a microwave (or other cooking appliance) with a dedicated 20-amp outlet may be provided instead.*

~~N2.11.1.2.N2.5.1.2.~~ An Energy Star-certified refrigerator (minimum 7 cubic feet).;

N2.11.2.N2.5.2. If provided in a dwelling unit, An Energy Star certified dishwasher must be Energy-Star certified (if provided); and

~~N2.11.3.0.~~ ~~Loop handles on drawers and cabinets~~

~~N2.11.4.~~ ~~For Affordable Assisted Living, all kitchen appliances shall be 100% electric.~~

N2.5.3. Handles are required on drawers and cabinets, and must allow for one-handed operation without tight grasping, pinching, or twisting of the wrist.

~~N2.11.5.~~**N2.5.4.** All kitchen venting must exhaust to the outside of building. This may be by hood, ceiling vent or wall vent.

~~N2.11.6.~~**N2.5.5.** Kitchens must have at least a 12" wide countertop "landing zone" on each side of stove and sink, and at least one side of refrigerator. This may be shared with another appliance and/or required work surface if applicable. Microwaves are permitted in-to overlap landing zones.

~~N2.12.~~**N2.6. Doors**

~~N2.12.1.~~**N2.6.1.** Interior ~~d~~Doors must meet the following requirements:

~~N2.12.1.1.~~**N2.6.1.1.** Minimum 32" clear width at passage doors

~~N2.12.1.2.~~ Solid wood, semi-solid core or solid core (fully supported face veneers, e.g.: particle board core, foam core), or insulated steel.

~~N2.12.1.3.0.~~ Closet doors (not including mechanical) are exempt from this requirement.

~~N2.12.1.4.~~**N2.6.1.2.** Lever-style handles are required on all doors with latches or locks. Doors without latches or locks must still have hardware that is easy to operate with one hand.

~~N2.12.1.5.~~**N2.6.1.3.** Bi-fold or accordion-type closet doors are not permitted, due to their high maintenance needs and ongoing repair costs.

~~N2.12.1.6.~~**N2.6.1.4.** Doors on an accessible route may not close faster than 5 seconds from a 90-degree open position, unless on a code-approved hold open.

~~N2.14.~~**N2.7. Floor Coverings**

~~N2.14.1.~~**N2.7.1.** If removable cabinets are used, the flooring and walls underneath the cabinet must be finished.

~~N2.14.2.~~**N2.7.2.** Floor coverings must be non-glare and slip resistant.

~~N2.14.3.~~**N2.7.3.** Interior ~~s~~Stairs in common areas and Sensory Units must have a anti-slip strips on visually contrasting nosing or front edge of steps in color-contrast material, to provide safety and visibility for residents descending the stair.

~~N2.15.~~**N2.8. Durability**

All projects funded by OHFA are subject to a minimum 30-year extended use period restricting rents and thereby limiting the capital reserves available for day-to-day repairs. In anticipation of resource constraints during the extended use period, it's exceptionally important that systems and materials are designed to last. The requirements in this section are also aimed at preventing environmental health hazards like mold, and forestalling common NSPIRE findings during the compliance period.

~~N2.15.1.~~**N2.8.1.** All new work must be constructed with materials that have an Expected Useful Life (EUL) that meets or exceeds the numbers given in the OHFA EUL table found in [Appendix C](#). For example, asphalt shingles ~~should~~must be 30-year shingles.

~~N2.15.2.~~**N2.8.2.** Material Specifications:

~~N2.15.2.1.~~**N2.8.2.1.** Vinyl siding must be at least 0.042 inches in thickness

- ~~N2.15.2.2.~~N2.8.2.2. Exterior insulation finishing system (EIFS) is prohibited, with the exception of decorative trims that are applied to an appropriate exterior cladding and located more than 7ft above ground level.
- ~~N2.15.2.3.~~N2.8.2.3. ~~Thin brick must be mud set and may not have a metal grid system.~~ Thin brick systems must have a minimum 30 year warranty.
- ~~N2.15.2.4.~~ Insulation must meet the ASHRAE 90.1 Standard at the time of OHFA application (e.g. 2019)
- ~~N2.15.2.5.~~N2.8.2.4. Windows and exterior doors must meet at minimum Version ~~6-7.0~~ (V6V7) Energy Star rating for ~~climate zone 5~~the applicable climate zone.
- ~~N2.15.2.6.0.~~ Window manufacturer must provide a letter identifying number of windows provided to the project complying with Energy Star V6 and windows U-value, infiltration and wind speed rating per V6.
- ~~N2.15.2.7.0.~~ HERS rater must certify those windows were installed on the project.
- ~~N2.15.2.8.0.~~ Storefront windows that are not typically Energy Star rated should meet the U-value requirements for Energy Star V6 if possible.
- ~~N2.15.2.9.~~N2.8.2.5. Cabinet materials must be in accordance with the requirements of ANSI A161.1 "Minimum Construction Performance Standards for Kitchen Cabinets" and must also have solid wood doors/fronts OR solid wood door/drawer front frame with plywood panel.
- ~~N2.15.2.10.~~N2.8.2.6. Carpet must be solution-dyed nylon or equivalent solution-dyed high-performance commercial fiber. Olefin carpets are prohibited. If a pad is required, a closed-cell pad must be used with antimicrobial and water-resistant material. Carpet is only permitted in the following development types and locations:
- ~~N2.15.2.10.1.~~N2.8.2.6.1. Management and social service office areas;
- ~~N2.15.2.10.2.~~N2.8.2.6.2. Bedrooms in residential living units (except for PSH);
- ~~N2.15.2.10.3.~~N2.8.2.6.3. In senior developments and AAL, carpet is permitted in living/dining rooms if a walk-off area is provided at exterior and entry doors.
- N2.8.2.6.4. In senior developments and AAL, carpet tile is permitted in corridors if applicant presents a plan for quarterly professional cleaning.
- N2.8.2.6.5. In senior developments and AAL, broadloom carpet is permitted in egress stairwells if applicant presents a plan for quarterly professional cleaning.
- ~~N2.15.2.11.0.~~
- ~~N2.15.2.12.~~N2.8.2.7. Moisture-resistant gypsum board is required in the following areas:
- ~~N2.15.2.12.1.~~N2.8.2.7.1. Ceilings with bathroom or toilet rooms directly above.
- ~~N2.15.2.12.2.~~ Within 4 feet horizontally and vertically of any water source.
- N2.8.2.7.2. Within 4 feet ~~in any direction~~horizontally and vertically behind;

~~N2.8.2.7.2.1. Sinks, toilets, tubs, showers and drinking fountains.~~

~~N2.8.2.7.2.2. Laundry/clothes washing machines.~~

~~N2.15.2.12.2.1.N2.8.2.7.2.3. Water heaters and boilers, water meters, etc.~~

~~N2.8.2.7.2.4. On walls less than 4 feet from sprinkler service control valves.~~

~~N2.15.2.12.2.2.N2.8.2.7.2.5. Water meters and water service lines located in service rooms.~~

~~15.2.12.2.3. Behind public drinking fountains.~~

~~N2.8.2.7.2.6. Within 4 feet horizontally and vertically of any water source or other water line wall penetration.~~

~~N2.15.2.12.3.N2.8.2.7.3.~~ Exterior walls within sub-grade or partially sub-grade dwelling units.

~~N2.15.2.13.N2.8.2.8.~~ *For Affordable Assisted Living:*

~~N2.15.2.13.1.N2.8.2.8.1.~~ *All outside corners in common area corridors, elevator lobbies, and Section 504 mobility units must have corner guards.*

~~N2.15.2.13.2.N2.8.2.8.2.~~ *In common area corridors, elevator lobbies, and Section 504 mobility units, baseboards shall be impact-resistant and at least 7.25" high. The interior of closets is exempt from this requirement.*

~~N2.15.2.13.3.N2.8.2.8.3.~~ *All common area and unit entry doors shall have kickplates or be high-pressure laminate doors.*

~~N2.15.3.N2.8.3.~~ Construction Practices:

~~N2.15.3.1.N2.8.3.1.~~ Seal all exterior holes and penetrations connected to interior with UV stable materials

~~N2.15.3.2.N2.8.3.2.~~ Weepholes ~~should must~~ not be ~~sealed blocked; provide and should include~~ corrugated vents, ~~or rope wicks, or similar to reduce likelihood that weepholes will be mistakenly sealed in the future.~~

~~N2.15.3.3.N2.8.3.3.~~ All downspouts must empty onto concrete splash blocks with a positive slope away from the building or be piped to an appropriate location.

~~N2.15.3.4.N2.8.3.4.~~ Paved surface adjacent to refuse collection area must be designed to provide adequate bearing for heavy garbage trucks.

~~N2.15.3.5.N2.8.3.5.~~ Any wall-hung sinks must have concealed floor and stud-braced carriers. For wall-hung sinks on masonry walls, a carrier arm bracket mounted on epoxy studs may be used.

~~N2.16.N2.9.~~ Building Systems

~~N2.16.1.N2.9.1.~~ Plumbing systems

~~N2.16.1.1.~~ Water heaters must meet current (adopted by Ohio at the time of 80% drawing submittal to OHFA) version of ASHRAE 90.1.

~~N2.16.1.2.N2.9.1.1.~~ All plumbing fixtures must have lever-style handles. Anti-scald faucets are required for all sinks, bathtubs, and showers.

~~N2.16.2.N2.9.2.~~ HVAC systems

~~N2.16.2.1.~~ ~~Must meet current (adopted by Ohio at the time of 80% drawing submittal to OHFA) version of ASHRAE 90.1.~~

~~N2.16.2.2.N2.9.2.1.~~ Thermostat and controls must be easy to read and simple to operate.

~~N2.16.2.3.N2.9.2.2.~~ All affordable units must be air conditioned.

~~N2.16.2.4.N2.9.2.3.~~ Package Terminal Air Conditioner (PTAC) units are not permitted.
Package Terminal Heat Pump (PTHP) units are permitted only in Affordable Assisted Living (AAL) projects:

~~N2.16.2.4.1.N2.9.2.3.1.~~ *Sleeves must be composite nonconductive energy efficient type. Sleeves must be re-sealed as necessary to prevent air infiltration after any future equipment replacement.*

~~N2.16.2.4.2.N2.9.2.3.2.~~ *Units may not have open (i.e., non-closing) ducts to the exterior.*

~~N2.16.2.4.3.N2.9.2.3.3.~~ *One PTHP unit is required in each habitable space (e.g., living room and bedroom). Duct kits are not permitted.*

~~N2.16.2.5.N2.9.2.4.~~ Stacked or adjacent mechanical units must allow for the access, service, and replacement of one unit without the removal of another.

~~N2.16.2.6.N2.9.2.5.~~ *For Affordable Assisted Living, HVAC must be in a room or enclosure either locked or not readily accessible without tools, or propose other HVAC units that would assist in regulatory compliance with OAC 3701-16-16.*

~~N2.16.3.N2.9.3.~~ Electrical systems

~~N2.16.3.1.N2.9.3.1.~~ Provide adequate non-glare lighting throughout.

~~N2.16.3.2.N2.9.3.2.~~ ~~In senior developments, s~~witches must be rocker, touch light, or hands-free.

~~N2.16.3.3.N2.9.3.3.~~ Outlets, phone jacks and data ports ~~should-must~~ be installed at least 18" A.F.F. to center of box.

~~N2.16.3.4.N2.9.3.4.~~ *For AAL, electrical panels must be locking type requiring key access.*

Guidelines for Rehabilitation

R1. Applicability

The Guidelines for Rehabilitation apply to the remodel of any existing residential building or space, in addition to the General Requirements at the beginning of the document.

OHFA recognizes not all rehabs are the same, and buildings in historic districts or seeking historic tax credits face unique obligations. OHFA is committed to facilitating communication between the development team and the State Historic Preservation Office of Ohio (SHPO) to coordinate any overlapping or competing requirements. OHFA encourages applicants to make use of the **Exception Inquiry** process, while being mindful that the individuals and families who live in Ohio's historic homes also deserve functional, accessible, and comfortable spaces.

~~R2. Lead-Based Paint Hazard Reduction~~

~~OHFA is committed to the reduction of lead-based paint hazards in housing throughout Ohio. Deteriorating lead-based paint and its resulting lead dust are the most common causes of elevated blood lead levels in children in Ohio. Because of Ohio's aging housing stock, many residents are susceptible to lead hazards. Over 25% of housing units in Ohio were built before 1950, when the first laws banning lead-based paint were enacted. Over two-thirds of housing units in Ohio were built in 1979 or earlier, pre-dating the federal ban on lead in house paint.~~

~~Applicability~~

~~The requirements in this section apply to all properties seeking OHFA funding for rehabilitation of a pre-1978 structure.~~

~~Certain properties may be exempt and are able to seek an exception to this requirement:~~

- ~~• Properties found not to have lead-based paint during earlier testing that meet the requirements of prior evaluations.~~
- ~~• Properties where all lead-based paint has been identified and removed using approved methods.~~
- ~~• Properties in an area where state and local governments banned lead-based paint prior to January 1, 1978.~~

~~Additionally, certain federal and state funding sources already require developments utilizing their funding to adhere to program-specific requirements for the reduction of lead-based paint hazards. Developments subject to these program-specific requirements should continue to follow the applicable guidance related to lead-based paint.~~

~~Requirements~~

~~Developments must comply with the requirements outlined in the **HUD Lead Safe Housing Rule** (24 CFR 35), specifically subparts A, B, J, and R as well as any other subparts applicable to the project. In general, this means projects must:~~

- ~~Conduct an evaluation of lead-based paint hazards (i.e., a risk assessment, paint inspection, or a combination of the two).~~
 - ~~For properties in good condition, a lead hazard screen risk assessment may be performed first to determine whether a full risk assessment is necessary.~~
- ~~Control identified lead hazards per Ohio Department of Health and HUD hazard reduction requirements.~~
- ~~Pass clearance testing of work area prior to re-occupancy.~~
- ~~Inform occupants of evaluation and hazard control activities and results and provide the HUD/EPA Lead Hazard information disclosure pamphlet.~~

~~Develop a lead hazard control plan for the property which includes an ongoing lead safe maintenance program. Additionally, developments must meet all other local, state, and federal requirements related to lead-based paint as may apply including those related to disclosure, professional qualifications, lead safe work practices, etc.~~

~~R19.Radon Reduction and Prevention~~

~~Applicability~~

~~The requirements in this section apply to all OHFA funded rehabilitation and adaptive reuse. Additionally, certain federal and state funding sources already require developments utilizing their funding to adhere to program specific requirements for radon testing and mitigation (for example, any development subject to HUD's environmental review regulations at 24 CFR Part 50 and Part 58). Developments subject to these program specific requirements should continue to follow the applicable guidance related to radon.~~

~~Radon testing, mitigation, and laboratory work for developments to be funded with OHFA resources must be performed by individuals who meet the certification and licensure requirements as outlined in OAC 3701-69. The most current testing standard for the applicable building type, as of the date the testing occurs, should be followed: EPA's Current Radon Standards of Practice~~

~~Requirements~~

~~Developments must incorporate radon-resistant construction techniques into their project. Radon-resistant construction techniques that might be incorporated during rehabilitation include:~~

- ~~vertical vent pipe(s) from the permeable layer through the roof to vent outside,~~
 - ~~(all vent piping must be located and designed for minimal effect on building appearance)~~
- ~~installation of a junction box in the attic or highest interior space for use with an in-line suction fan if one is required for future active removal of radon.~~

~~Rehabilitation Projects may request an exception to the requirement for a radon mitigation system based on pre-construction testing results below 4.0pCi/L. If the highest result of testing conducted before construction is between 2 and 4 pCi/L, it is recommended that a passive system is still installed in all impacted areas (as a building becomes more airtight the level of radon is more likely to increase).~~

~~Regardless of any exception granted, radon testing after construction but before occupancy is required. Testing must be conducted in accordance with the current ANSI/AARST testing standards for the applicable structure. If any result from the post-construction testing is at or above the threshold (4.0 pCi/L) a passive radon system must be installed in the impacted area, and the area must be retested~~

~~after installation and the radon system adjusted (including installing exhaust fans to convert the passive system to an active system) until satisfactory results are obtained. Radon testing, mitigation, and laboratory work for developments to be funded with OHFA resources must be performed by individuals who meet the certification and licensure requirements as outlined in OAC 3701-69.~~

R30.R2. Sustainability

Older buildings are often poorly sealed from air infiltration, lacking in insulation, and reliant on older mechanical systems which can lead to resident discomfort and high utility costs. Unlike the strict energy requirements for new construction, building code allows for many of these existing conditions to remain during renovation – otherwise, there are old buildings that simply could not be renovated due to cost.

However, OHFA actively incentivizes renovation and places priority on resident well-being. Therefore, ~~i~~n addition to meeting all energy efficiency requirements as stated in the Ohio Building Code or Residential Code, all OHFA funded Rehabilitation projects must meet the requirements of one of the below energy efficiency or green building certifications.

Upon construction completion, developer must submit c~~ertification~~ from a Home Energy Rating System (HERS) rater that:

- a) the requirements ~~of the third party~~third-party certification have been met AND
- b) post-construction blower door testing achieves 12 ACH or lower~~is required upon construction completion.~~

The HERS Rater must be engaged from the design development phase through construction completion. At OHFA's discretion, exceptions may be granted for an otherwise qualified and licensed professional to verify compliance ~~with the DAS in~~for rural projects unable to retain a HERS rater in their area.

Certification from the applicable green building rating system itself is recommended but not required. This gives OHFA the flexibility to issue exceptions for individual elements of a green program (as justified by unique building conditions), and guards against delays in certification that may hold up issuance of the project's 8609.

Third Party Certifications

Developments must utilize the most current version of the below certifications. The current version is the version applicable at the time of project application to the certifying body.

- Enterprise Green Communities Certification or EGC Plus Certification
- Leadership in Energy & Environmental Design (LEED) Residential - Silver Level ~~Certification~~ or higher
- ICC/ASHRAE 700 National Green Building Standard (NGBS) - Silver Level ~~Certification~~ or higher
- Energy Star Single-Family New Homes (SFNH)Homes or Energy Star~~Multifamily New Construction~~ (MFNC)
- Passive House Initiative - Passive House Certification
- PHIUS - Passive House Certification
- WELL Certification (requires recertification)
- Fitwel Certification (requires recertification)
- Energy Star NextGen Certified Homes & Apartments

- ~~Zero Energy Ready Homes~~ U.S. Department of Energy's Efficient New Homes Program (ZERHDENH)
- Living Building Challenge (LBC) Zero Carbon Certification
- Green Globes by Green Building Initiative, Inc. (GBI)
- GreenPoint Rated by Habinex
- ~~An equivalent ANSI-approved rating system~~
- ~~HERS Rater~~

~~Use of a HERS rater is required for all projects, HERS Rater must be engaged at the application or preliminary phase through construction completion.~~

~~and certification by a HERS rater for the following:~~

- ~~The development meets or exceeds the higher of either the certification selected or the Ohio Energy Code using the current ASHRAE 90.1 (e.g. 2019)~~
- ~~For Rehab: The post-construction blower door test must achieve 12 ACH or lower.~~

~~HERS Rater must be engaged at the application or preliminary phase through construction completion.~~

R31.R3. Minimum Scope of Work

Any ~~All~~ rehabilitation projects ~~seeking HTC (competitive or non-competitive)~~ must significantly address major building systems (MBS). See [Construction Categories](#) for more information on how MBS are linked to the various levels of Rehabilitation. MBS must be significant to the building and its use, normally expected to last the useful life of the building, and not cosmetic. ~~The “major systems” in HOME and NHTF Property Standards are equivalent to OHFA’s MBS.~~ Major Building Systems are as follows:

- | | |
|--|--|
| 1. Structural: Concrete, Masonry, Metals | 5-6. Heating, Ventilation, and Air Conditioning (HVAC) |
| 2. <u>Thermal Building Envelope: Thermal</u> and Moisture Protection, <u>Openings</u> | 6-7. Electrical, Communications, Electronic Safety and Security |
| 2-3. Conveying Equipment (elevators) | 7-8. Earthwork, Exterior Improvements |
| 3-4. Fire Suppression | 8-9. Utilities |
| 4-5. Plumbing | |

Total replacement of a Major Building System is not required, but the greater part (at least 50%) must be replaced. If the project consists of multiple buildings with different needs, each building may designate different Major Building Systems for replacement. A new and substantial addition to the project (i.e. a new community building, sprinkler system, or elevator) can constitute a Major Building System for purposes of determining sufficient scope. Interior finishes and casework cannot be used to meet the major building systems requirement and are assumed to be included in all OHFA funded rehabilitation projects.

All building systems/assemblies in need of replacement and/or repair as identified in the PCNA or identified by the architect must be included in the scope of work, regardless of if these elements are part of a Major Building System identified above. This includes items identified in the PCNA as having an RUL of less than 50%.

- Applicants are advised to submit an exception request if they plan to keep existing materials having an RUL of less than 50% but determined to be in excellent-good condition and not intended for replacement.
- Applicant must also submit an exception request if they intend to replace any items having an RUL of 50% or greater and not showing need for replacement.
- New materials must be at 100% RUL. All materials installed during construction must be new materials, with an RUL of 100%.

OHFA may will require the applicant to adjust the scope of work if the proposed scope of work does not meet these minimum requirements or address all the items identified in the PCNA.

Expectations at Project Completion

All rehabilitation projects must be complete in scope such that materials and finishes appear clean and consistent. Mismatched, patchwork, or unwashed materials and finishes will not be accepted at completion of any rehabilitation. ~~All deficiencies observed in the PCNA must be addressed.~~ Materials such as carpet, vinyl composite tile (VCT) thickness, vinyl siding, building systems, and mechanical systems may not be patched or repaired if they do not meet the OHFA DAS for the year in which the project was funded. Door hardware ~~should must~~ be uniform in style throughout dwelling units. Exterior ~~concrete~~, stairs, play equipment, shelters, and outbuildings shall be in good condition upon completion without damage, rust, or rot and must ~~be have a~~ painted or have an weather cover other protective coating meeting OHFA’s DAS.

Any exception to this standard must be in writing from OHFA prior to LIHTC equity closing or Housing Development Assistance Program (HDAP) closing, whichever occurs first. The project scope of work, budget and underwrite may need to be revised to meet the above intent.

~~R32.~~R4. OHFA Design Requirements

These requirements are specific to OHFA. They are in addition to all other applicable local and state codes, including those governing accessibility.

R4.1. Site Design

- R4.1.1.** ~~Ensure exterior areas have grass or other ground cover so that no bare soil is left exposed~~Provide landscaping, which at a minimum must include grass or ground cover. Existing trees ~~should~~must be maintained where possible.

R4.1.1.1. Project landscaping may not use species identified by the Ohio Department of Agriculture or Ohio Department of Natural Resources as invasive in Ohio. ~~During construction, measures must be implemented to remove invasive species and prevent their re-establishment.~~

- R4.1.2.** Any new sidewalks along the accessible route must be a minimum of 5-feet in width.

- R4.1.3.** For single family dwellings, sidewalks from a front door must connect to a driveway or public route.

- R4.1.4.** Stormwater management areas must be provided with recognized design measures to ensure safety for children and other residents of the project or the surrounding neighborhood. Overflow and drainpipes must have safety grating.

R4.2. Building Design

- ~~**N2.2.1.** If the footprint of the existing building is being expanded, maximum common area, using the Common Space definition for what constitutes common area, must not exceed 20 percent of the total gross building square footage.~~

~~R4.2.2.~~R4.2.1. Elevators

~~R4.2.2.1.~~**R4.2.1.1.** If an elevator is existing, it must be ~~maintained~~retained and be accessible to all residents.

~~R4.2.1.2.~~**R4.2.1.2.** ~~Developments~~If the population served under the program funding agreement is serving se~~Seniors, or or a PSH population~~Tenant Population with Special Housing Needs with a high rate of disability~~category (i) populations with a disability, or Tenant Population with Special Housing Needs category (iii) expectant mothers, the development~~category (i) populations with a disability, or Tenant Population with Special Housing Needs category (iii) must not exceed one story unless the building has an elevator accessible~~available~~available to all residents. This requirement does not apply to single-family homes, 1-, 2-, or 3-family dwellings, or townhouses.

~~R4.2.2.2.~~**R4.2.1.3.** For re-syndication of an existing property that does not meet this requirement, the developer may submit an exception request describing how the existing building is currently operating successfully for existing residents. For the exception to be approved, developer must demonstrate financial infeasibility of adding an elevator due to building structure and layout, or historic design limitations.

~~R4.2.3.~~**R4.2.2.** Laundry

~~R4.2.3.1.~~**R4.2.2.1.** If laundry facilities are currently provided on-site, this amenity must be ~~maintained~~retained.

R4.3. Unit Sizes

R4.3.1. All affordable units must meet the following minimum size requirements:

R4.3.1.1. 0-bedroom/Efficiency units (i.e. studio, efficiency): 400 square feet

R4.3.1.1.1. Service Enriched: 350 square feet

R4.3.1.1.1.R4.3.1.1.2. Assisted Living: 350 square feet

R4.3.1.2. 1-bedroom units: 500 square feet

R4.3.1.2.1. Service Enriched: 450 square feet

R4.3.1.2.2. Assisted Living: 450 square feet

R4.3.1.2.2.R4.3.1.2.3.F. or for projects receiving Historic Tax Credits, all 1-bedroom units combined must average 500 square feet

R4.3.1.3. 2-bedroom units: 700 square feet

R4.3.1.4. 3-bedroom units: 950 square feet

R4.3.1.5. 4+ bedroom units: 1,100 square feet

R4.3.2. For rehabs where the existing units are smaller than allowed above, exception requests will be judged based on the following metrics: a) whether the application is for Preserved Affordability, b) whether the building is historic in nature, c) whether the unit layout is functional in terms of accessibility and storage, d) whether unit sizes are balanced by available common area and amenities for resident use, e) whether remote storage is available for residents, f) how small the noncompliant units are, and g) whether the market supports smaller units (for example in an urban area).

~~R4.3.2.0.~~

R4.3.3. Single-room occupancy units (SROs) are ~~not only~~ permitted if the population served under the program funding agreement is a Tenant Population with Special Housing Needs.

~~**N2.3.4.** Senior Developments may not have any unit larger than two bedrooms.~~

~~**R4.3.5.**~~**R4.3.4.** All affordable units must include adequate storage space for unit residents. Length of storage must be clearly dimensioned on unit plans::

~~R4.3.5.1.~~R4.3.4.1. At least 6 LF of hanging storage for Efficiency and 1-bedroom units, plus an additional 4 LF for every additional bedroom

~~R4.3.5.2.~~R4.3.4.2. At least 2 LF of full-height shelving in a hall or bathroom

R4.3.4.3. At least 3 LF of kitchen base or pantry cabinets (not including removable cabinets)

~~**R4.3.6.**~~**R4.3.5.** For rehabs of existing buildings where a) the size of the units impedes full compliance, b) the application is for Preserved Affordability, and c) the storage is close to meeting the requirement, OHFA encourages the developer to submit an exception request.

~~**R4.3.7.**~~**R4.3.6.** For Affordable Assisted Living, 100% of residential units must be on an accessible level on an accessible path and must have an accessible path throughout the unit.

N2.4. Bedroom Sizes

~~R4.5.0. All affordable unit bedrooms must meet the following minimum size requirements:~~

~~R4.6.0.0. Primary bedroom: 110 square feet~~

~~R4.7.0.0. Secondary bedrooms: 90 square feet~~

~~R4.8.0. Closets are excluded from the required minimum bedroom sizes identified above.~~

R4.9.R4.4. Bathrooms

~~R4.9.1.R4.4.1.~~ All 504 mobility units provided must have one roll-in shower.

~~R4.9.1.1.R4.4.1.1.~~ If a trench drain is not provided at the threshold of the roll-in shower, then a floor drain must be provided outside of the shower. When a floor drain is used, it must be approximately at the center of the open floor.

~~R4.9.2.R4.4.2.~~ Handles are required on drawers and cabinets, and must allow for one-handed operation without tight grasping, pinching, or twisting of the wrist. ~~Provide loop handles on drawers and cabinets.~~

~~R4.4.3.~~ In order to prevent injury, PLAM countertops must not have 90-degree corners. Either chamfer or radius the corner, or provide a modified profile (beveled, eased, ogee, bullnose, etc.) at the front edge. OHFA does not require any specific profile or dimension of radius, but a detail must be included with the 80% drawing submission. No countertop material besides PLAM is governed by this requirement.

~~N2.9.3.~~ PLAM countertops may not have sharp 90-degree corners, in case of a bathroom fall. Either chamfer or radius the corner, or provide a modified profile (beveled, eased, ogee, bullnose, etc.) at the front edge. OHFA does not require any specific profile or dimension of radius.

~~R4.9.4.R4.4.4.~~ *For Affordable Assisted Living, 100% of resident bathrooms must be designed to meet Section 504 for mobility units, including a roll-in shower.*

R4.10.R4.5. Kitchen & Appliances

~~R4.10.1.R4.5.1.~~ All affordable unit kitchens must include:

~~R4.10.1.1.R4.5.1.1.~~ Either a stand-alone range that is at least 24-inches wide or a cooktop and wall oven.;

~~R4.5.1.1.1.~~ For Service Enriched developments that provide meals for residents, a microwave (or other cooking appliance) with a dedicated 20-amp outlet may be provided instead.

~~R4.10.1.1.1.R4.5.1.1.2.~~ *For Affordable Assisted Living, a microwave (or other cooking appliance) with a dedicated 20-amp outlet may be provided instead.*

~~R4.10.1.2.R4.5.1.2.~~ An Energy Star-certified refrigerator (~~under-counter refrigerators will not be accepted~~ minimum 7 cubic feet);;

~~R4.10.2.R4.5.2.~~ An Energy Star-certified ~~if provided,~~ dishwasher must be Energy Star-certified (if provided); and

~~R4.10.3.0.~~ Loop handles on drawers and cabinets

~~R4.10.4.~~ *For Affordable Assisted Living, all kitchen appliances shall be 100% electric.*

R4.5.3. Handles are required on drawers and cabinets, and must allow for one-handed operation without tight grasping, pinching, or twisting of the wrist.

R4.10.5-R4.5.4. Existing kitchen exhaust systems must be retained if they have a 6" minimum diameter duct, and are ducted directly to the exterior. If the PCNA documents that the existing kitchen exhaust duct is less than 6" or nonexistent, then recirculating hoods may be used instead.

R4.10.6-R4.5.5. Kitchens must have at least a 9" wide countertop "landing zone" on each side of stove and sink, and at least one side of refrigerator. This may be shared with another appliance and/or required work surface if applicable. Microwaves are permitted in-to overlap landing zones.

R4.11-R4.6. Doors

R4.11.1-R4.6.1. Interior doors must meet the following requirements:

~~N2.11.1.1. Existing bedroom and bathroom doors, if replaced, must be replaced with solid wood, semi-solid core or solid core (fully supported face veneers, e.g.: particle board core, foam core), or insulated steel.~~

R4.11.1.2-R4.6.1.1. Existing door widths may remain as is except for Section 504 mobility units.

R4.11.1.3-R4.6.1.2. Lever-style handles are required on all doors with latches or locks. Doors without latches or locks must still have hardware that is easy to operate with one hand.

~~N2.11.1.4. Bi-fold or accordion type doors are not permitted.~~

R4.11.1.5-R4.6.1.3. ~~Common area and mobility unit doors~~ Doors on an accessible route may not close faster than 5 seconds from a 90-degree open position, unless on a code-approved hold open.

R4.12-R4.7. Floor Coverings

R4.12.1-R4.7.1. If removable cabinets are used, the flooring and walls underneath the cabinet must be finished.

R4.12.2-R4.7.2. Floor coverings must be non-glare and slip resistant.

R4.12.3-R4.7.3. ~~Stairs in common areas and Sensory Units must have a visually contrasting nosing or front edge, to provide safety and visibility for residents descending the stair. Interior stairs must have anti-slip strips on front edge of steps in color-contrast material.~~

R4.13-R4.8. Durability

All projects funded by OHFA are subject to a minimum 30-year extended use period restricting rents and thereby limiting the capital reserves available for day-to-day repairs. In anticipation of resource constraints during the extended use period, it's exceptionally important that systems and materials are designed to last. The requirements in this section are also aimed at preventing environmental health hazards like mold, and forestalling common NSPIRE findings during the compliance period.

R4.13.1-R4.8.1. All new work must be constructed with materials that have an Expected Useful Life (EUL) that meets or exceeds the numbers given in the OHFA EUL table found in Appendix C. For example, asphalt shingles ~~should~~ must be 30-year shingles.

~~R4.13.2.R4.8.2.~~ Specific materials designated as historic by the State Historic Preservation Office of Ohio (SHPO) ~~as addressed in writing by SHPO are exempt from individual~~ may be granted an exception request for durability requirements as necessary. OHFA may require coordination between developer and SHPO to confirm the extent of historic preservation requirements. ~~The letter must be provided at application and include each item specifically addressed to meet this exemption.~~

R4.13.3.R4.8.3. Material Specifications:

~~R4.13.3.1.R4.8.3.1.~~ Vinyl siding must be at least 0.042 inches in thickness

~~R4.13.3.2.R4.8.3.2.~~ New exterior insulation finishing system (EIFS) is prohibited, with the exception of decorative trims that are applied to an appropriate exterior cladding and located more than 7ft above ground level. If existing EIFS is intended to remain, applicant must provide a third-party report documenting the condition of the existing EIFS, condition of the building envelope at the EIFS location, and making recommendations for any repair or replacement to maintain the integrity of the building envelope over the entirety of the compliance period. Rehab scope of work must incorporate those recommendations, ~~subject to OHFA's review.~~

~~R4.13.3.3.R4.8.3.3.~~ ~~Thin brick must be mud set and may not have a metal grid system.~~ Thin brick systems must have a minimum 30 year warranty.

~~R4.13.3.4.R4.8.3.4.~~ Any insulation that is installed or accessible during the rehabilitation (e.g. attic insulation) must be upgraded to meet the IECC or ASHRAE 90.1 Standard for new construction at the time of OHFA application, to the extent physically possible. ~~(e.g. 2019)~~

R4.8.3.5. New and replacement windows and exterior doors must meet at minimum Version 7.06 (V67) Energy Star rating for the applicable climate zone ~~5~~.

~~R4.13.3.4.1.R4.8.3.5.1.~~ Windows required to meet SHPO's historic window replacement requirements are exempt, but must meet a minimum U-Factor of 0.30. Air leakage is limited to no more than 0.30 cfm/ft².

~~R4.13.3.5.~~ ~~Window manufacturer must provide a letter identifying number of windows provided to the project complying with Energy Star V6 and windows U-value, infiltration and wind speed rating per V6.~~

~~R4.13.3.6.~~ ~~HERS rater must certify those windows were installed on the project.~~

~~R4.13.3.7.~~ ~~Storefront windows that are not typically Energy Star rated should meet the U-value requirements for Energy Star V6 if possible. Any existing storefront windows must be in good condition with the frames intact and the thermal seals unbroken.~~

~~R4.13.3.8.R4.8.3.6.~~ Cabinet materials must be in accordance with the requirements of ANSI A161.1 "Minimum Construction Performance Standards for Kitchen Cabinets" and must also have solid wood doors/fronts OR solid wood door/drawer front frame with plywood panel.

~~R4.13.3.9.R4.8.3.7.~~ Carpet must be solution-dyed nylon or equivalent solution-dyed high-performance commercial fiber. Olefin carpets are prohibited. If a pad is required, a closed-cell pad must be used with antimicrobial and water-resistant material. Carpet is only permitted in the following development types and locations:

~~R4.13.3.9.1.R4.8.3.7.1.~~ Management and social service office areas;

~~R4.13.3.9.2~~~~R4.8.3.7.2.~~ Bedrooms in residential living units (except for Service Enriched housing developments);

~~R4.13.3.9.3~~~~R4.8.3.7.3.~~ In senior developments, carpet is permitted in living/dining rooms only if a walk-off area is provided in front of any exterior/entry door.

~~R4.8.3.7.4.~~ In senior developments and AAL, carpet tile is permitted in corridors if applicant presents a plan for quarterly professional cleaning.

~~R4.8.3.7.5.~~ In senior developments and AAL, broadloom carpet is permitted in egress stairwells if applicant presents a plan for quarterly professional cleaning.

~~R4.13.3.10.~~

~~R4.13.3.11~~~~R4.8.3.8.~~ Any gypsum board that is installed or replaced as part of the rehab scope must be moisture-resistant gypsum board in the following areas:

~~R4.13.3.11.1~~~~R4.8.3.8.1.~~ Ceilings with bathroom or toilet rooms directly above.

~~R4.8.3.8.2.~~ Within 4 feet horizontally and vertically ~~of any water source behind:-~~

~~R4.8.3.8.2.1. Sinks, toilets, tubs, showers and drinking fountains.~~

~~R4.8.3.8.2.2. Clothes washing machines.~~

~~R4.8.3.8.2.3. Water heaters and boilers.~~

~~R4.8.3.8.2.4. Sprinkler control valves.~~

~~R4.8.3.8.2.5. Water meters and water service lines.~~

~~R4.8.3.8.2.6. Any other water line wall penetration.~~

~~R4.13.3.11.2.~~

~~R4.13.3.11.3.~~ Within 4 feet in any direction behind laundry/clothes washing machines, water heaters, water meters, etc.

~~R4.13.3.11.4.~~ On walls less than 4 feet from sprinkler service controls and water service lines located in service rooms.

~~R4.13.3.11.5.~~ Behind public drinking fountains.

~~R4.13.3.11.6~~~~R4.8.3.8.3.~~ Exterior walls within sub-grade or partially sub-grade dwelling units.

~~R4.13.3.12~~~~R4.8.3.9.~~ *For Affordable Assisted Living:*

~~R4.13.3.12.1~~~~R4.8.3.9.1.~~ *All outside corners in common area corridors, elevator lobbies, and Section 504 mobility units must have corner guards.*

~~R4.13.3.12.2~~~~R4.8.3.9.2.~~ *In common area corridors, elevator lobbies, and Section 504 mobility units, baseboards shall be impact-resistant and at least 7.25" high. The interior of closets is exempt from this requirement.*

~~R4.13.3.12.3~~~~R4.8.3.9.3.~~ *All common area and unit entry doors shall have kickplates or be high-pressure laminate doors.*

~~R4.13.4.~~R4.8.4. Construction Practices:

~~R4.13.4.1.~~R4.8.4.1. Seal all exterior holes and penetrations connected to interior with UV stable materials

~~R4.13.4.2.~~R4.8.4.2. Weepholes must not be blocked; provide corrugated vents, rope wicks, or similar to reduce likelihood that weepholes will be mistakenly sealed in the future.
~~Weepholes should not be sealed and should include corrugated vents or rope wicks~~

~~R4.8.4.2.~~

~~R4.13.4.3.~~R4.8.4.3. All downspouts must empty onto concrete splash blocks with a positive slope away from the building or be piped to an appropriate location.

~~R4.13.4.4.~~R4.8.4.4. Paved surface adjacent to refuse collection area must be designed to provide adequate bearing for heavy garbage trucks.

~~R4.13.4.5.~~R4.8.4.5. Any wall-hung sinks must have concealed floor and stud-braced carriers. For wall-hung sinks on masonry walls, a carrier arm bracket mounted on epoxy studs may be used.

~~R4.14.~~R4.9. Building Systems

~~R4.14.1.~~R4.9.1. Plumbing systems

~~R4.14.1.1.~~R4.9.1.1. New wWater heaters must meet current (adopted by Ohio at the time of 80% drawing submittal to OHFA) version of IECC or ASHRAE 90.1.

~~R4.14.1.2.~~R4.9.1.2. All plumbing fixtures must have lever-style handles. Anti-scald faucets are required for all sinks, bathtubs, and showers.

~~R4.14.1.3.~~R4.9.1.3. ~~All existing buildings must have~~All shut-off valves must be replaced with full port stainless steel shut-off valves.

~~R4.14.1.4.~~R4.9.1.4. *At Affordable Assisted Living, an automatic sprinkler system is required in accordance with OAC 1301:7-7-09 Fire protection systems (f) 903.2.6 Group I.*

~~R4.14.2.~~R4.9.2. HVAC systems

~~R4.14.2.1.~~R4.9.2.1. New HVAC systems mMust meet current (adopted by Ohio at the time of 80% drawing submittal to OHFA) version of IECC or ASHRAE 90.1.

~~R4.14.2.2.~~R4.9.2.2. Thermostat and controls must be easy to read and simple to operate.

~~R4.14.2.3.~~R4.9.2.3. All affordable units must be air conditioned.

~~R4.14.2.4.~~R4.9.2.4. Package Terminal Air Conditioner (PTAC) units are not permitted. Package Terminal Heat Pump (PTHP) units are permitted only in rehabilitation projects in openings where PTHPs or PTACs currently exist.

~~R4.14.2.4.1.~~R4.9.2.4.1. _____ Sleeves must be replaced with composite nonconductive energy efficient type. Sleeves must be re-sealed as necessary to prevent air infiltration after any future equipment replacement.

~~R4.14.2.4.2.~~R4.9.2.4.2. _____ Duct kits may not block controls or windows.

~~R4.14.2.4.3.~~R4.9.2.4.3. _____ Units may not have open (i.e., non-closing) ducts to the exterior.

~~R4.14.2.4.4.R4.9.2.4.4.~~ *AAL projects require an individual PTHP unit per habitable space (e.g., living room and bedroom).*

~~R4.14.2.5.R4.9.2.5.~~ Stacked or adjacent mechanical units must allow for the access, service, and replacement of one unit without the removal of another. In rehab projects this applies only to a new equipment configuration that did not exist prior to rehab.

~~R4.14.2.6.R4.9.2.6.~~ *For Affordable Assisted Living, HVAC must be in a room or enclosure either locked or not readily accessible without tools, or propose other HVAC units that would assist in regulatory compliance with OAC 3701-16-16.*

~~R4.14.3.R4.9.3.~~ Electrical systems

~~R4.14.3.1.R4.9.3.1.~~ Provide adequate non-glare lighting throughout.

~~R4.14.3.2.~~ ~~Switches must be rocker, touch light, or hands-free.~~

~~R4.14.3.3.R4.9.3.2.~~ Outlets must meet HUD's NSPIRE standard for GFCI protection.

~~R4.14.3.4.R4.9.3.3.~~ Obsolete electrical panels, meter equipment, disconnects etc. throughout the entire property must be replaced. This includes electrical panels that contain components that are not readily and commonly available at a reasonable cost. Common examples include: Federal Pacific, Wadsworth, Bryant, Sylvania, Challenger, Cleveland (Cleveland Switch Board), Push-O-matic, Zinsco, any screw-in fuses, any split buss panels, etc. Replacement equipment must show load calculations for any major load change such as HVAC.

~~R4.14.3.4.1.R4.9.3.3.1.~~ Where MDP or disconnects utilize renewable cartridge fuses (such as Bussmann, Cooper, etc.) these are not considered obsolete.

~~R4.14.3.4.2.R4.9.3.3.2.~~ Where panels no longer manufactured have currently manufactured replacement breakers. These replacement breakers must ~~have an Underwriters test letter from the replacement breaker manufacturer that allows the new U/L-rated breakers to be installed in the project specific obsolete panel make and model number~~ be UL Classified for the proposed use.

~~R4.14.3.5.R4.9.3.4.~~ Smoke alarms must be installed to meet HUD's NSPIRE standard.

~~R4.14.3.6.R4.9.3.5.~~ *For AAL, electrical panels must be locking type requiring key access.*

APPENDIX A: Physical Capital Needs Assessment Standards

Purpose

A Physical Capital Needs Assessment (PCNA) represents a third-party qualified professional's opinion of a property's current overall physical condition and identifies significant deferred maintenance, existing deficiencies, and material building code violations that affect the property's use and its structural and mechanical integrity.

Qualifications

PCNAs must be prepared by an individual who has experience in the preparation of PCNAs and possesses a professional qualification/license in architecture or engineering. If the individual does not have a professional qualification/license in architecture or engineering, they must have at least 5 years of experience preparing PCNAs.

The third-party qualified professional preparing the PCNA must not be connected in any way to the project, including serving as the design architect, project architect of record, general contractor, property manager or sponsor. OHFA may grant an exception for small projects and adaptive reuse projects.

Definitions

OHFA will use the following definitions per ASTM E2018-~~15~~24 or current standard.

- **Physical deficiency:** a conspicuous defect or deferred maintenance of a subject property's material systems, assemblies, components, or equipment as observed during completion of the PCNA. This definition specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous minor repairs, normal operating maintenance, etc., and excludes minor conditions that generally do not present material physical deficiencies of the subject property.
- **Deferred maintenance:** physical deficiencies that could have been remedied with routine maintenance, normal operating maintenance, etc., excluding minor conditions that generally do not present a material physical deficiency to the subject property.
- **Good condition:** in working condition and does not require immediate or short-term repairs above an agreed threshold.
- **Fair condition:** in working condition but may require immediate or short-term repairs above an agreed threshold.
- **Poor condition:** not in working condition or requires immediate or short-term repairs substantially above an agreed threshold.
- **Immediate costs:** opinions of costs that require immediate action as a result of any of the following: (1) material existing or potentially unsafe conditions, (2) material building or fire code violations, or (3) physical deficiencies that if left uncorrected would be expected to result in or contribute to critical element or system failure within one year or will result most probably in a significant escalation of its remedial cost.

- **Short-term costs:** opinions of costs to remedy physical deficiencies, such as deferred maintenance, which may not warrant immediate attention, but require repairs or replacements that should be undertaken on a priority basis in addition to routine preventive maintenance.

Scope

OHFA requires a PCNA for all projects involving rehabilitation, including adaptive reuse projects. The PCNA must conform to ASTM E2018-24 or current standards and must reflect the current condition of the building. PCNAs produced for USDA or RAD projects, if not conforming to ASTM E2018-24, may still be used with OHFA approval used if OHFA reviews and determines they meet the quality and level of detail required of an Exception Request prior to submission.

The PCNA must identify any repair items that represent an immediate threat to health and safety, and all other significant defects, deficiencies, items of deferred maintenance, and material building code violations that would limit the expected-actual useful life of building systems or assemblies. The PCNA must identify electrical and mechanical systems in detail with the manufacture, mechanical efficiencies, and/or component types (reference Section L-2.3.3R6.9.3.4. Electrical systems for list of common obsolete panels).

The PCNA must include a completed PCNA Table of Contents template (including page numbers) and all items specified in Appendix B: PCNA Table of Contents.

Process

The professional shall conduct a site visit and physical inspection of interior and exterior of units and structures, including:

- 25% of all dwelling units (if less than 50 total units)
- 20% of all dwelling units (if 50 to 99 total units)
- 15% of all dwelling units (if 100 total units or more)
- All accessible units
- All common facilities
- All site improvements
- All building exteriors

The units sampled must be comprehensive of all unit and building types. The site visit(s) must be within one year of the submission to OHFA. The PCNA provider may attest that the PCNA remains valid or provide a letter of amendment without requiring an additional site visit, up to 1 year after issuance. OHFA may require the third-party qualified professional to update any report that is greater than 6 months old at the time of submission.

The PCNA professional must interview available on site property management and maintenance personnel and inquire about past repairs/improvements, pending repairs and existing or chronic physical deficiencies.

Guidance

The following are additional requirements.

- The PCNA should-must be a point-in-time observation of existing conditions.
- The PCNA must-should not give direction or guidance outside the scope of providing observation.
- The PCNA must-should not address or be catered to competitive scoring items.

- For Adaptive Reuse/Historic projects, the PCNA ~~must should~~ make a point-in-time observation of all aspects of the building but give substantial details on structure, façade, and items to remain.
- When the age of an assembly is unknown, it ~~must should~~ be stated as such. However, the condition must still be evaluated even if the age is an estimate or unknown.
- The EUL/RUL of an item does not equate to need. Need is the second half of evaluation for replacement that must be documented.
- Existing accessibility items should only be addressed in the PCNA if the owner requests it and the PCNA provider is adequately qualified to provide such an evaluation.
- When evaluating a system or assembly, the following questions must be clearly answered in the PCNA:
 - What is the current condition?
 - Does it need to be replaced?
 - How much of the system needs to be replaced (as a percentage)?
- Building systems and their assemblies ~~must should~~ be documented through photographs specifically highlighting areas of concern.
- Indicate when relying on information from the owner (“the owner reports the new windows were installed in....”).

APPENDIX B: OHFA PCNA Table of Contents

This PCNA Table of Contents (TOC) template must be used in all PCNAs submitted to OHFA. All items in the TOC must be included in the PCNA. If an item is not applicable, it must be stated as such.

Section	Page #
1. Executive Summary	
1.1 General description of property (use, size, age, location, construction category, design style, occupancy status)	
1.2 Name of consultant preparing the PCNA	
1.3 Name of user of the PCNA	
1.4 User's position with respect to the subject property	
1.5 Date of the site visit	
1.6 General physical condition	
1.6(a) Subject property's general physical condition	
1.6(b) Summary of the apparent level of preventive maintenance exercised	
1.6(c) Summary of any significant deferred maintenance	
1.6(d) Schedule of material physical deficiencies	
1.6(e) Any significant capital improvements that are pending, in-progress, or were recently implemented	
1.6(f) Any significant findings resulting from research (This should <u>must</u> include material life-safety code and building code violations)	
1.7 Opinions of costs	
<i>Present the aggregate sum of opinions of costs segregated between immediate and short-term costs.</i>	
1.8 Deviations from ASTM E2018- 2415 or current standard	
1.9 Consultant/Field Observer relationship	
1.10 Recommendations/Discussions	
1.10(a) Briefly identify those assemblies and systems necessitating further study, research, testing, intrusive survey, or exploratory probing.	
1.10(b) This section also may be used to discuss any obvious major deviations from the subject property description provided by the user to the consultant, ongoing repairs or improvements, or other relevant issues.	
2. Purpose and Scope	
2.1 Provide a short paragraph specifically stating the purpose the PCNA should <u>serves</u> and the client's position with respect to the real estate transaction. If the client does not disclose the PCNA's purpose or its role to the consultant, the PCNA should <u>must</u> so state.	
2.2 Identify the improvements that comprise the subject property.	
2.3 Provide an outline of the scope of work completed for the PCNA and methods utilized.	
2.4 If there were any constraints preventing the consultant from performing the PCNA in accordance with this outline, these constraints should <u>must</u> be identified.	
3. System Descriptions and Observations	

<i>For each major building system listed in the OHFA EUL Table, provide a brief description of each system and its assemblies and observed physical deficiencies, if any. Please notate with corresponding numbers listed in the EUL Table. Include all:</i> • <i>The item's Estimated Useful Life (based on the OHFA EUL table) and Remaining Useful Life;</i> • <i>The item's current physical condition, stated as "good", "fair", or "poor"; and</i> • <i>PCNA provider's recommendation for critical replacements/repair.</i> <i>This list should not be considered all-inclusive. Conversely, some items may not be applicable to the subject property and should-can be noted as such.</i>	
4. Document Reviews and Interviews	
<i>Identify any material information relating to physical deficiencies of the subject property resulting from the review of documents and interviews conducted.</i>	
5. Additional Considerations	
<i>Identify any material additional considerations or out of scope considerations that are included in the PCNA. This may include:</i> • <i>Capital improvements, enhancements, or upgrades to building components, systems, or finishes; and/or</i> • <i>Improvements, capital expenditures, repairs, maintenance and other activities that are or may be required at a future date, except as needed in the review of short term and long-term needs; and/or</i> • <i>Environmental considerations, such as mold, asbestos, or lead-based paint.</i>	
6. Opinions of Costs	
6.1 Identification of material physical deficiencies and suggested remedies, including opinions of costs.	
<i>For each material physical deficiency, the consultant should-must provide a suggested remedy, which may include recommending further research or testing, or both, if appropriate in the consultant's opinion.</i>	
<i>Opinions of costs should-must be provided for material physical deficiencies and not for repairs or improvements that could be classified as: (1) cosmetic or decorative; (2) part or parcel of a building renovation program (3) tenant improvements/finishes; (4) enhancements to reposition the subject property in the marketplace; (5) for warranty transfer purposes; or (6) routine or normal preventive maintenance, or a combination thereof.</i>	
<i>Identify all Immediate Repairs as occurring in year zero and project the expected reserve requirements necessary for at least the following 20 years of operations.</i>	
6.1(a) Immediate Costs (table)	
<i>Identify each material physical deficiency, suggested remedy, and opinion of cost.</i>	
6.1(b) Short-term Costs (table)	

<i>Identify each material physical deficiency, suggested remedy, and opinion of cost.</i>	
6.1(c) Replacement Reserves/Ongoing Physical Needs (table)	
<i>Provide opinion of cost for all long-term capital expenses. Long-term capital expenses are typically based on the expected useful life of the building systems and assemblies.</i>	
6.1(d) Costs for Additional Study	
<i>Provide the opinions of costs for additional study for any physical deficiencies that warrant further study/research or design, testing, exploratory probing, and exploration of various repair schemes, or a combination thereof, in order to determine the appropriate suggested remedy or scope.</i>	
7. Qualifications	
<i>Provide the qualifications for the professionals contributing to and completing the PCNA.</i>	
8. Limiting Conditions	
<i>Provide all limiting conditions of the PCNA.</i>	
9. Exhibits	
9.1 Representative photographs *	
9.2 Pre-survey questionnaire	
9.3 User/owner submitted documents	
9.4 Photocopied plot plans, sketches, etc.	
9.5 Inspected units list (unit number, size, accessibility)	
9.6 Other exhibits considered appropriate by the consultant	

Representative photographs must typically include photographs of existing roof condition, exterior windows, sidings, doors, gutters downspouts, existing site feature conditions(ex: swimming pools, play areas, maintenance building, garages, dumpster etc.), interior unit conditions(includes all room), mechanical units, electrical panels (type), Accessible unit (includes all room), Common areas such community room, laundry room etc.), Asphalt paving condition, sidewalk condition, site signage, fence, parking etc.

APPENDIX C: OHFA EUL Table

Note: this table is sorted by **CSI Divisions** with assemblies and parts grouped within the divisions. Each Division corresponds with the format of the OHFA Scope of Work (SoW) excel form.

~~Any materials used in OHFA projects (New or rehab) must be in the table to be used in OHFA projects. This includes existing items to remain.~~

Division	Section	Assembly	Description	Family	Senior
Division 3			Concrete		
	3-A		Framing		
		3-A-i	Reinforced concrete	100	100
	3-B		Exterior Stairs & Railings		
		3-B-i	Exterior Stairs, Concrete	50	50
	3-C		Balcony/Porch/Canopy		
		3-B-ii	Balcony/Porch, concrete	40	40
		3-B-iv	Canopy, Concrete	50	50
	3-D		Foundation		
		3-A-i	Slab, reinforced concrete	100	100
		3-A-ii	Slab, post tensioned	100	100
		3-A-iii	Continuous reinforced concrete footer and CMU stem wall	100	100
		3-A-iv	Piers, reinforced concrete footer and CMU pier	100	100
Division 4			Masonry		
	4-A		Framing		
		4-A-i	Reinforced masonry, concrete masonry units (CMUs)	100	100
		4-A-ii	Solid Masonry (obsolete)	100	100
Division 5			Metals		
	5-A		Framing		
		5-A-i	Tie downs, clips, braces, straps, hangers, shear walls/panels	75	75
		5-A-ii	Steel, beams, trusses	100	100
		5-A-iii	Steel frame and sheet metal or insulated panel sheathing	100	100
	5-B		Exterior Stairs & Railings		
		5-B-i	Exterior Stairs-steel frame/stringer	40	40
		5-B-ii	Exterior Stair Tread-metal, concrete filled	20	20
		5-B-iii	Fire escapes, metal	50	50
		5-B-iv	Railings, metal	50	50
	5-C		Balcony/Porch/Canopy		
		5-C-i	Balcony/Porch, steel frame	40	40
		5-C-ii	Canopy, Metal	40	40
	5-D		Foundation		
	5-E		Interior Metal Stairs & Railings		

Division	Section	Assembly	Description	Family	Senior
		5-E-i	Interior Stairs	50	50
		5-E-ii	Interior Stair and loft railings	15	25
Division 6			Wood, Plastics, and Composites		
	6-A		Framing		
		6-A-i	Wood, timbers, dimensioned lumber, laminated beams, trusses	100	100
		6-A-ii	Roof wood frame and board or plywood sheathing	75	75
	6-B		Exterior Stairs and Railings		
		6-B-i	Exterior Stairs, wood frame/stringer	30	30
		6-B-i	Exterior Stair Tread-wood	15	15
		6-B-i	Railings, wood	20	20
		6-B-i	Railings, composite	50	50
	6-C		Balcony/Porch/Canopy		
		6-C-i	Wood decking	20	20
		6-C-ii	Composite decking	50	50
		6-C-iii	Balcony/Porch, wood frame	25	25
		6-C-iv	Canopy, Wood	40	40
	6-D		Foundation		
		6-D-i	Piers, treated timber post/pole	40	40
	6-E		Interior Stairs and Railings		
		6-E-i	Interior wood Stairs	50	50
		6-E-ii	Stair and loft railings	15	25
Division 7			Thermal & Moisture Protection		
	7-A		Flashing & Moisture Protection		
		7-A-i	Foundation Waterproofing	40	40
		7-A-ii	Caulking and Sealing	15	15
		7-A-iii	Concrete/Masonry Sealants	10	10
		7-A-iv	Wood waterproofing and sealants	10	10
		7-A-v	Building wraps & moisture resistant barriers	50	50
		7-A-vi	Paints and stains, exterior	8	8
	7-B		Sloped Roofs		
		7-B-i	Asphalt Shingle	30	30
		7-B-ii	Metal	50	50
		7-B-iii	Slate shingle	75	75
		7-B-iv	Clay/cementitious barrel tile	60	60
		7-B-v	Wood Shingle, Cedar Shakes/Shingles	25	25
	7-C		Low Slope/Flat Roofs		
		7-C-i	Low slope-Built-up Roof, with gravel finish	20	20
		7-C-ii	Low slope-Built-up Roof, no mineral or gravel finish	10	10

Division	Section	Assembly	Description	Family	Senior
		7-C-iii	Low slope-Adhered rubber membrane, (EPDM)	15	15
		7-C-iv	Low slope-Thermoplastic membrane, (TPO, vinyl)	15	15
		7-C-v	Low slope-Rubberized/elastomeric white/cool roof	15	15
	7-D		Roof Drainage, Trim & Accessories		
		7-D-i	Gutters/Downspouts, aluminum	20	20
		7-D-ii	Gutters/Downspouts, copper	50	50
		7-D-iii	Low slope-roof drains, scuppers	30	30
		7-D-iv	Soffits, Wood, Vinyl, Metal	20	20
		7-D-v	Fascia, Wood, Vinyl	20	20
		7-D-vi	Roof Hatch	30	30
		7-D-vii	Service Door	30	30
		7-D-viii	Roof Skylight	30	30
	7-E		Attics & Eaves		
		7-E-i	Screened gable end or soffit Vents	30	30
		7-E-ii	Roof vents, passive	40	40
		7-E-iii	Roof Vents, powered	20	20
	7-F		Crawl Spaces, Envelope Penetrations		
		7-F-i	Sealed crawl space system	40	40
		7-F-ii	Vents, screens, covers	30	30
		7-F-iii	Vapor Barrier (VDR) ground or underfloor	30	30
		7-F-iv	Penetrations, caulking/sealing	15	15
	7-G		Insulation		
		7-G-i	Loose fill, fibre glass, cellulose, mineral wool	50	50
		7-G-ii	Batts, blankets, rolls, fibre glass or mineral wool	60	60
		7-G-iii	Rigid foam board	60	60
		7-G-iv	Sprayed foam	60	60
	7-H		Façades, Curtainwall, or Sidewall System		
		7-H-i	Aluminum Siding	40	40
		7-H-ii	Vinyl Siding	25	25
		7-H-iii	Cement Board Siding	45	45
		7-H-iv	Plywood/Laminated Panels	20	20
		7-H-v	Stucco, over wire mesh/lath	50	50
		7-H-vi	Metal/Glass Curtain Wall	40	40
		7-H-vii	Precast Concrete Panel (tilt-up)	60	60
		7-H-viii	Brick/block veneer	60	60
		7-H-ix	Stone Veneer	50	50
		7-H-x	Glass Block	50	50
		7-H-xi	Cedar/Redwood shakes, clapboard	50	50

Division	Section	Assembly	Description	Family	Senior
		7-H-xii	Pine board, clapboard	50	50
Division 8			Openings		
	8-A		Exterior Doors & Entry Systems		
		8-A-i	Unit Entry Door, Exterior, solid wood/metal clad	25	30
		8-A-ii	Common Exterior Door, aluminum and glass	30	30
		8-A-iii	Common Exterior Door, solid wood /metal clad	25	25
		8-A-iv	Storm/Screen Doors	5	10
		8-A-v	Sliding Glass Doors	25	30
		8-A-vi	French or Atrium Doors, wood/metal clad	25	30
		8-A-vii	Automatic Entry Doors	30	30
		8-A-viii	Commercial Entry Systems	50	50
		8-A-ix	Overhead Door	30	30
		8-A-x	Automatic Opener, overhead door	20	20
	8-B		Windows		
		8-B-i	Wood, (dbl, sgl hung, casement, awning, sliders)	35	45
		8-B-ii	Wood, fixed pane, picture	40	45
		8-B-iii	Aluminum	35	40
		8-B-iv	Vinyl	30	30
		8-B-v	Vinyl/Alum Clad Wood	50	50
		8-B-vi	Storm/Screen Windows	7	15
	8-C		Interior Doors		
		8-C-i	Interior, hollow core doors	20	25
		8-C-ii	Interior doors, solid core, wood, metal clad, fire rated	30	35
		8-C-iii	Door trim	20	30
		8-C-iv	Wall trim (base, chair rail, crown moldings)	30	35
		8-C-v	Passage & lock sets	15	20
		8-C-vi	Bifold & sliding doors	15	20
Division 9			Finishes		
	9-A		Interior finished walls, ceilings, floors – (Common Areas & Dwelling Units)		
		9-A-i	Drywall	35	40
		9-A-ii	Plaster	50	50
		9-A-iii	Paints, stains, clear finishes, interior	15	20
		9-A-iv	Wallpapers	15	20
		9-A-v	Wall tile, ceramic, glass, natural stone	35	50
		9-A-vi	Floor tile, ceramic, natural stone	40	50
		9-A-vii	Concrete/Masonry/Terrazo	75	75
		9-A-viii	Hardwood floor (3/4" strip or parquet)	50	50
		9-A-ix	Wood floor, laminated/veneered	20	25

Division	Section	Assembly	Description	Family	Senior
		9-A-x	Resilient tile or sheet floor (vinyl, linoleum)	15	20
		9-A-xi	Carpet	6	10
		9-A-xii	Acoustic tile/drop ceiling	15	20
Division 10			Specialties		
	10-A		Mailboxes & Postal Equipment		
		10-A-i	Interior Mail Facility	20	25
	10-B		Storage Accessories		
		10-B-i	Closet/storage specialties, shelving	20	25
		10-B-ii	Mirrors & medicine cabinets	20	25
		10-B-iii	Bath accessories (towel bars, grab bars, etc)	7	12
Division 11			Equipment		
	11-A		Appliances		
		11-A-i	Refrigerator/freezer	15	15
		11-A-ii	Range, cook top, wall oven	20	25
		11-A-iii	Range hood	20	25
		11-A-iv	Microwave	10	10
		11-A-v	Disposal (food waste)	7	10
		11-A-vi	Compactors (interior, residential grade)	7	10
		11-A-vii	Dishwasher	10	15
		11-A-viii	Clothes washer/dryer	10	15
		11-A-ix	Ceiling fans	15	15
Division 12			Furnishings & Casework		
	12-A		Windows		
		12-A-i	Window treatments, drapery rods, shades, blinds, etc	15	25
	12-B		Amenities/ Common Areas		
		12-B-i	Indoor recreation and fitness equipment	10	15
		12-B-ii	Seating for entertainment centers	15	25
	12-C		Kitchen & Baths		
		12-C-i	Cabinets & vanities	20	25
	12-D		Counter Tops		
		12-D-i	engineered stone	50	50
		12-D-ii	solid surface, stainless steel	40	50
		12-D-iii	plastic laminates, wood	15	25
		12-D-iv	Vanity tops, cultured marble, molded acrylic, fiberglass	25	35
Division 14			Conveying Equipment		
	14-A		Elevators/Escalators		
		14-A-i	Electrical switchgear	50	50
		14-A-ii	Electrical wiring	30	30

Division	Section	Assembly	Description	Family	Senior
		14-A-iii	Elevator controller, call, dispatch, emergency	10	20
		14-A-iv	Elevator cab, interior finish	10	20
		14-A-v	Elevator cab, frame	35	50
		14-A-vi	Elevator, machinery	20	30
		14-A-vii	Elevator, shaftway doors	10	20
		14-A-viii	Elevator, shaftway hoist rails, cables, traveling	20	25
		14-A-ix	Elevator, shaftway hydraulic piston and leveling	20	25
		14-A-x	Escalators	50	50
Division 21			Fire Suppression		
	21-A		Sprinklers and Standpipes		
		21-A-i	Building fire suppression sprinklers, standpipes	50	50
		21-A-ii	Fire pumps	20	20
		21-A-iii	Fire hose stations	50	50
		21-A-iv	Fire extinguishers	10	15
Division 22			Plumbing		
	22-A		Water Supply and Waste Piping		
		22-A-i	PVC/CPVC pipe, supply and waste	75	75
		22-A-ii	Copper/brass hard pipe, supply	75	75
		22-A-iii	Copper Tube, supply	50	50
		22-A-iv	Galvanized pipe, supply	40	40
		22-A-v	Cast iron sanitary waste	75	75
		22-A-vi	Domestic Cold Water Pumps	20	20
		22-A-vii	Sewage Ejectors	50	50
		22-A-viii	Commercial Sump Pump	20	20
		22-A-ix	Residential Sump Pump	15	15
		22-A-x	Water Softener/Filtration	15	15
	22-B		Domestic Water Heating		
		22-B-i	DHW circulating pumps	15	15
		22-B-ii	DHW storage tanks	15	15
		22-B-iii	Exchanger, in tank or boiler	15	15
		22-B-iv	External tankless heater, gas or electric	20	20
		22-B-v	Solar hot water	20	20
		22-B-vi	Residential hot water heater, gas or electric	12	15
		22-B-vi	Flue, gas water heaters	35	35
	22-C		Fixtures		
		22-C-i	Faucets & valves	15	20
		22-C-ii	Bathtubs & sinks: cast iron	75	75
		22-C-iii	Bathtubs & sinks: enameled or stainless steel, fiberglass	40	40

Division	Section	Assembly	Description	Family	Senior
		22-C-iv	Bathtubs & sinks: porcelain	50	50
		22-C-v	Toilets/bidets/urinals	40	40
		22-C-vi	Flush valves	10	15
		22-C-vii	Tub/shower units or integrated assemblies	30	30
Division 23			HVAC		
	23-A		Centralized Heating/Cooling Equipment		
		23-A-i	Boilers, Oil Fired, Sectional	25	25
		23-A-ii	Boilers, Gas/Dual Fuel, Sectional	25	25
		23-A-iii	Boilers, Gas/Dual Fuel, Low MBH	30	30
		23-A-iv	Boilers, Gas/Dual Fuel, High MBH	40	40
		23-A-v	Boilers, Gas Fired Atmospheric	25	25
		23-A-vi	Boilers, Electric	20	20
		23-A-vii	Boiler Blowdown and Water Treatment	25	25
		23-A-viii	Boiler Room Pipe Insulation	25	25
		23-A-ix	Boiler Room Piping	50	50
		23-A-x	Boiler Room Valves	25	25
		23-A-xi	Boiler Temperature Controls	15	15
		23-A-xii	Heat Exchanger	35	35
		23-A-xiii	Combustion Air, Duct with Fixed Louvers	30	30
		23-A-xiv	Combustion Air, Motor Louvers and Duct	25	25
		23-A-xv	Combustion Waste Flue	40	40
		23-A-xvi	Cooling tower	25	25
		23-A-xvii	Chilling plant	20	20
		23-A-xviii	Steam supply station	50	50
		23-A-xix	Free standing chimney	50	50
	23-B		Centralized Heat/Air/Fuel Distribution		
		23-B-i	Fuel oil/propane storage tanks	40	40
		23-B-ii	Remediate/remove abandoned tanks/fuel lines	100	100
		23-B-iii	Fuel transfer system	25	25
		23-B-iv	Gas/oil distribution lines	50	50
		23-B-v	Gas meter	40	40
		23-B-vi	2 pipe/4 pipe hydronic distribution-above grade	50	50
		23-B-vii	2 pipe/4 pipe hydronic distribution-in ground	25	25
		23-B-viii	Hydronic/Water Circulating Pumps	20	20
		23-B-ix	Hydronic/Water Controller	20	20
		23-B-x	Radiation-steam/hydronic (baseboard or freestanding radiator)	50	50
		23-B-xi	Fan Coil Unit, Hydronic	30	30
		23-B-xii	Central exhaust fans/blowers	20	20

Division	Section	Assembly	Description	Family	Senior
	23-C		Decentralized and Split HVAC Systems (Dwelling/Common Area)		
		23-C-i	Electric heat pump, condenser, pad or rooftop	15	15
		23-C-ii	Electric AC condenser, pad or rooftop	15	15
		23-C-iii	Electric furnace/air handler	20	20
		23-C-iv	Gas furnace/air handler	20	20
		23-C-v	Hydronic heat/electric AC air handler	25	25
		23-C-vi	Hydronic feed electric heat pump/air handler	25	25
		23-C-vii	Wall mounted electric/gas heater	25	25
		23-C-viii	Electric baseboard heater	30	30
		23-C-ix	PTAC Thruwall (packaged terminal air conditioning)	15	15
		23-C-x	Window or thru-wall air conditioners	10	10
		23-C-xi	Package HVAC roof top	15	15
		23-C-xii	Air filtration/humidity control devices (humidifiers, HRV's)	20	20
		23-C-xiii	Duct, rigid sheet metal, insulated if not in conditioned space	35	35
		23-C-xiv	Duct, flexible, insulated	20	20
		23-C-xv	Duct, sealing-mastic or UL 181A or 181B tape.	20	20
		23-C-xvi	Diffusers, registers	20	20
		23-C-xvii	Fireplace, masonry & firebrick, masonry chimney	75	75
		23-C-xviii	Fireplace, factory assembled	35	35
		23-C-xix	Fireplace insert, stove	50	50
		23-C-xx	Chimneys, metal, and chimney covers	35	35
	23-D		HVAC Controls		
		23-D-i	Dwelling/common area thermostat	15	20
		23-D-ii	Heat sensors	15	15
		23-D-iii	Outdoor temperature sensor	10	10
	23-E		Exhaust and Fans		
		23-E-i	Bath/kitchen vent/exhaust fans	15	15
Division 26			Electrical (Building)		
	26-A		Electric Service & Metering		
		26-A-i	Building service panel	50	50
		26-A-i	Building meter	40	40
		26-A-i	Tenant meters, meter panel	40	40
	26-B		Electrical Distribution		
		26-B-i	Tenant electrical panel	50	50
		26-B-ii	Unit/building wiring	50	50
	26-C		Electric Lighting & Fixtures		
		26-C-i	Switches & outlets	35	35
		26-C-ii	Lighting - exterior entry	15	20

Division	Section	Assembly	Description	Family	Senior
		26-C-iii	Lighting- interior common space	25	30
		26-C-iv	Lighting - Tenant Spaces	20	25
		26-C-v	Doorbells, chimes	20	25
Division 27			Communications		
	27-A		Telecommunications Equipment		
		27-A-i	Satellite dishes/antennae	20	20
		27-A-ii	Telecom panels & controls	20	20
		27-A-iii	Telecom cabling & outlets	20	20
	27-B		Integrated Audio-Video Systems and Equipment for Theaters		
		27-B-i	Theater projection for Entertainment centers	15	25
Division 28			Electronic Safety and Security		
	28-A		Alarm, Security & Emergency Systems		
		28-A-i	Tenant space alarm systems	10	15
		28-A-ii	Residential smoke detectors	5	7
		28-A-iii	Call station	10	15
		28-A-iv	Emergency/auxiliary generator	25	25
		28-A-v	Emergency/auxiliary fuel storage tank	25	25
		28-A-vi	Emergency lights, illuminated signs	5	10
		28-A-vii	Smoke and fire detection system, central panel	15	15
		28-A-viii	Buzzer/intercom, central panel	20	20
		28-A-ix	Tenant buzzer / intercom /secured entry system	20	20
	28-B		Other Systems		
		27-B-i	Pneumatic Lines and Controls	30	30
		27-B-ii	Auto-securing doors/entries/lock down	30	30
Division 31			Earthwork		
	31-A		Storm Water Drainage		
		31-A-i	Catch basins, inlets, culverts	50	50
		31-A-ii	Marine or stormwater bulkhead	35	35
		31-A-iii	Earthwork, swales, drainways, erosion controls	50	50
		31-A-iv	Storm drain lines	50	50
		31-A-v	Stormwater management ponds	50	50
		31-A-vi	Fountains, pond aerators	15	15
	31-B		Access and Egress		
		31-B-i	Security gate - lift arm	10	10
		31-B-ii	Security gate - rolling gate	15	15
	31-C		Site Utilities-Water		
		31-C-i	Water Mains/Valves	50	50
		31-C-ii	Water Tower	50	50

Division	Section	Assembly	Description	Family	Senior
		31-C-iii	Irrigation System	25	25
	31-D		Radon Systems		
		31-D-i	Foundation suction, drainage, moisture or radon gas controls/alarms	10	10
		31-D-ii	Crawl space, (de)pressurization, fans, pumps, radon gas alarms	10	10
Division 32			Exterior Improvements		
	32-A		Paving, Curbing and Parking		
		32-A-i	Asphalt Pavement	25	25
		32-A-ii	Asphalt Seal Coat	5	5
		32-A-iii	Concrete Pavement	50	50
		32-A-iv	Curbing, Asphalt	25	25
		32-A-v	Curbing, Concrete	50	50
		32-A-vi	Parking, Gravel Surfaced	15	15
		32-A-vii	Permeable Paving Systems (brick, concrete pavers)	30	30
		32-A-viii	Striping and Marking	15	15
		32-A-ix	Signage, Roadway / Parking	15	15
		32-A-x	Carports, wood frame	30	30
		32-A-xi	Carports, metal frame	40	40
	32-B		Flatwork (walks, plazas, terraces, patios)		
		32-B-i	Asphalt	25	25
		32-B-ii	Concrete	50	50
		32-B-iii	Gravel	15	15
		32-B-iv	Permeable Paving (brick, concrete pavers)	30	30
	32-C		Landscaping and Appurtenances		
		32-C-i	Fencing, chain-link	40	40
		32-C-ii	Fencing, wood picket	15	20
		32-C-iii	Fencing, wood board (=>1"x 6")	20	25
		32-C-iv	Fencing, wrought Iron	60	60
		32-C-v	Fencing, steel or aluminum	20	25
		32-C-vi	Fencing, concrete Masonry unit (CMU)	30	30
		32-C-vii	Fencing, PVC	15	20
		32-C-viii	Signage, Entrance/Monument	25	25
		32-C-ix	Mail Kiosk	15	20
		32-C-x	Retaining Walls, heavy block (50-80 lb)	60	60
		32-C-xi	Retaining Walls, re-enforced concrete masonry unit (CMU)	40	40
		32-C-xii	Retaining Walls, treated timber	25	25
		32-C-xiii	Storage sheds	30	30
	32-D		Recreational Facilities		

Division	Section	Assembly	Description	Family	Senior
		32-D-i	Sport Court- asphalt	25	25
		32-D-ii	Sport Court- synthetic	15	20
		32-D-iii	Sport Court-hardwood	50	50
		32-D-iv	Tot Lot (playground equipment)	10	15
		32-D-v	Tot Lot- loose ground cover	3	5
		32-D-vi	Pool Deck	15	15
		32-D-vii	Pool/Spa Plastic Liner	8	8
		32-D-viii	Pool/Spa pumps and equipment	10	10
		32-D-ix	Decks-treated lumber	20	20
		32-D-x	Decks-composite	50	50
Division 33			Utilities/ Electrical		
	33-A		Site Utilities-Electric		
		33-A-i	Electric distribution center	40	40
		33-A-ii	Electric distribution lines	40	40
		33-A-iii	Transformer	30	30
		33-A-iv	Emergency Generator	25	25
		33-A-v	Solar Photovoltaic panels	15	15
		33-A-vi	Photovoltaic Inverters	10	10
		33-A-vii	Pole mounted lights	25	25
		33-A-viii	Ground lighting	10	10
		33-A-ix	Building Mounted Lighting	10	10
		33-A-x	Building Mounted High Intensity Discharge (HID) Lighting	10	20
	33-B		Site Utilities-Gas		
		33-B-i	Gas Main	40	40
		33-B-ii	Gas Supply Lines	40	40
		33-B-iii	Site Propane, Storage & Distribution	35	35
		33-B-iv	Gas lights/fire pits	20	20
	33-C		Site Utilities-Sewer		
		33-C-i	Sanitary Sewer lines	50	50
		33-C-ii	Sanitary waste treatment system	40	40
		33-C-iii	Lift Station	50	50
	33-D		Site Utilities-Trash		
		33-D-i	Dumpsters	15	15
		33-D-ii	Compactors (exterior, commercial grade)	20	20
		33-D-iii	Recycling containers/equipment	15	15
		33-D-iv	Composting, organic recycling equipment	10	10

APPENDIX D: HOME PROPERTY STANDARDS

In addition to the Standards outlined in the DAS, for all projects receiving HOME funds the following provisions will be applicable as per 24 CFR § 92.251.

§ 92.251 Property standards.

(A) New construction projects.

- (1) State and local codes, ordinances, and zoning requirements.** Housing that is newly constructed with HOME funds must meet all applicable State and local codes, ordinances, and zoning requirements. HOME-assisted new construction projects must meet State or local residential and building codes, as applicable or, in the absence of a State or local building code, the International Residential Code or International Building Code (as applicable to the type of housing) of the International Code Council. The housing must meet the applicable requirements upon project completion.
- (2) HUD requirements.** All new construction projects must also meet the requirements described in this paragraph:
 - (i) Accessibility.** The housing must meet the accessibility requirements of 24 CFR part 8, which implements Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), and Titles II and III of the Americans with Disabilities Act (42 U.S.C. 12131-12189) implemented at 28 CFR parts 35 and 36, as applicable. Covered multifamily dwellings, as defined at 24 CFR 100.201, must also meet the design and construction requirements at 24 CFR 100.205, which implements the Fair Housing Act (42 U.S.C. 3601-3619).
 - (ii) [Reserved]**
 - (iii) Disaster mitigation.** Where relevant, the housing must be constructed to mitigate the impact of potential disasters (e.g., earthquakes, hurricanes, flooding, and wildfires), in accordance with State and local codes, ordinances, or other State and local requirements, or such other requirements as HUD may establish.
 - (iv) Written cost estimates, construction contracts and construction documents.** The participating jurisdiction must ensure the construction contract(s) and construction documents describe the work to be undertaken in adequate detail so that inspections can be conducted. The participating jurisdiction must review and approve written cost estimates for construction and determining that costs are reasonable.
 - (v) Construction progress inspections.** The participating jurisdiction must conduct progress and final inspections of construction to ensure that work is done in accordance with the applicable codes, the construction contract, and construction documents.
 - (vi) Broadband infrastructure.** For new commitments made after January 19, 2017 for a new construction housing project of a building with more than 4 rental units, the construction must include installation of broadband infrastructure, as this term is defined in 24 CFR 5.100, except where the participating jurisdiction determines and, in accordance with § 92.508(a)(3)(iv), documents the determination that:
 - (a) The location of the new construction makes installation of broadband infrastructure infeasible; or**

(b) The cost of installing the infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden.

(B) Rehabilitation projects. All rehabilitation that is performed using HOME funds must meet the requirements of this paragraph (b).

(1) Rehabilitation standards. The participating jurisdiction must establish rehabilitation standards for all HOME-assisted housing rehabilitation activities that set forth the requirements that the housing must meet upon project completion. The participating jurisdiction's description of its standards must be in sufficient detail to determine the required rehabilitation work including methods and materials. The standards may refer to applicable codes or they may establish requirements that exceed the minimum requirements of the codes. The rehabilitation standards must address each of the following:

- (i) **Health and safety.** The participating jurisdiction's standards must identify life-threatening deficiencies that must be addressed immediately if the housing is occupied.
- (ii) **Major systems.** Major systems are: structural support; roofing; cladding and weatherproofing (e.g., windows, doors, siding, gutters); plumbing; electrical; and heating, ventilation, and air conditioning. For rental housing, the participating jurisdiction's standards must require the participating jurisdiction to estimate (based on age and condition) the remaining useful life of these systems, upon project completion of each major systems. For multifamily housing projects of 26 units or more, the participating jurisdiction's standards must require the participating jurisdiction to determine the useful life of major systems through a capital needs assessment of the project. For rental housing, if the remaining useful life of one or more major system is less than the applicable period of affordability, the participating jurisdiction's standards must require the participating jurisdiction to ensure that a replacement reserve is established and monthly payments are made to the reserve that are adequate to repair or replace the systems as needed. For homeownership housing, the participating jurisdiction's standards must require, upon project completion, each of the major systems to have a remaining useful life for a minimum of 5 years or for such longer period specified by the participating jurisdiction, or the major systems must be rehabilitated or replaced as part of the rehabilitation work.
- (iii) **Lead-based paint.** The participating jurisdiction's standards must require the housing to meet the lead-based paint requirements at 24 CFR part 35.
- (iv) **Accessibility.** The participating jurisdiction's standards must require the housing to meet the accessibility requirements in 24 CFR part 8, which implements Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), and Titles II and III of the Americans with Disabilities Act (42 U.S.C. 12131-12189) implemented at 28 CFR parts 35 and 36, as applicable. Covered multifamily dwellings, as defined at 24 CFR 100.201, must also meet the design and construction requirements at 24 CFR 100.205, which implements the Fair Housing Act (42 U.S.C. 3601-3619). Rehabilitation may include improvements that are not required by regulation or statute that permit use by a person with disabilities.
- (v) [Reserved]
- (vi) **Disaster mitigation.** Where relevant, the participating jurisdiction's standards must require the housing to be improved to mitigate the impact of potential disasters (e.g.,

earthquake, hurricanes, flooding, and wildfires) in accordance with State and local codes, ordinances, and requirements.

- (vii) State and local codes, ordinances, and zoning requirements.** The participating jurisdiction's standards must require the housing to meet all applicable State and local codes, ordinances, and requirements or, in the absence of a State or local building code, the International Existing Building Code of the International Code Council.
- (viii) Uniform Physical Condition Standards.** The standards of the participating jurisdiction must be such that, upon completion, the HOME-assisted project and units will be decent, safe, sanitary, and in good repair as described in 24 CFR 5.703. HUD will establish the minimum deficiencies that must be corrected under the participating jurisdiction's rehabilitation standards based on inspectable items and inspected areas from HUD-prescribed physical inspection procedures (Uniform Physical Conditions Standards) pursuant to 24 CFR 5.705.
- (ix) Capital Needs Assessments.** For multifamily rental housing projects of 26 or more total units, the participating jurisdiction must determine all work that will be performed in the rehabilitation of the housing and the long-term physical needs of the project through a capital needs assessment of the project.
- (x) Broadband infrastructure.** For new commitments made after January 19, 2017 for a substantial rehabilitation project of a building with more than 4 rental units, any substantial rehabilitation, as defined in 24 CFR 5.100, must provide for installation of broadband infrastructure, as this term is also defined in 24 CFR 5.100, except where the participating jurisdiction determines and, in accordance with § 92.508(a)(3)(iv), documents the determination that:

 - (a) The location of the substantial rehabilitation makes installation of broadband infrastructure infeasible;**
 - (b) The cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden; or**
 - (c) The structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.**

(2) Construction documents and cost estimates. The participating jurisdiction must ensure that the work to be undertaken will meet the participating jurisdiction's rehabilitation standards. The construction documents (i.e., written scope of work to be performed) must be in sufficient detail to establish the basis for a uniform inspection of the housing to determine compliance with the participating jurisdiction's standards. The participating jurisdiction must review and approve a written cost estimate for rehabilitation after determining that costs are reasonable.

(3) Frequency of inspections. The participating jurisdiction must conduct an initial property inspection to identify the deficiencies that must be addressed. The participating jurisdiction must conduct progress and final inspections to determine that work was done in accordance with work write-ups.

(C) Acquisition of standard housing.

(1) Existing housing that is acquired with HOME assistance for rental housing, and that was newly constructed or rehabilitated less than 12 months before the date of commitment of HOME funds, must meet the property standards of paragraph (a) or paragraph (b) of this section, as applicable, of this section for new construction and rehabilitation projects. The participating

jurisdiction must document this compliance based upon a review of approved building plans and Certificates of Occupancy, and an inspection that is conducted no earlier than 90 days before the commitment of HOME assistance.

(2) All other existing housing that is acquired with HOME assistance for rental housing must meet the rehabilitation property standards requirements of paragraph (b) of this section. The participating jurisdiction must document this compliance based upon an inspection that is conducted no earlier than 90 days before the commitment of HOME assistance. If the property does not meet these standards, HOME funds cannot be used to acquire the property unless it is rehabilitated to meet the standards of paragraph (b) of this section.

(3) Existing housing that is acquired for homeownership (e.g., down payment assistance) must be decent, safe, sanitary, and in good repair. The participating jurisdiction must establish standards to determine that the housing is decent, safe, sanitary, and in good repair. At minimum, the standards must provide that the housing meets all applicable State and local housing quality standards and code requirements and the housing does not contain the specific deficiencies proscribed by HUD based on the applicable inspectable items and inspected areas in HUD-prescribed physical inspection procedures (Uniform Physical Condition Standards) issued pursuant to 24 CFR 5.705. The participating jurisdiction must inspect the housing and document this compliance based upon an inspection that is conducted no earlier than 90 days before the commitment of HOME assistance. If the housing does not meet these standards, the housing must be rehabilitated to meet the standards of this paragraph (c)(3) or it cannot be acquired with HOME funds.

(D) Occupied housing by tenants receiving HOME tenant-based rental assistance. All housing occupied by tenants receiving HOME tenant-based rental assistance must meet the standards in 24 CFR 982.401, or the successor requirements as established by HUD.

(E) Manufactured housing. Construction of all manufactured housing including manufactured housing that replaces an existing substandard unit under the definition of “reconstruction” must meet the Manufactured Home Construction and Safety Standards codified at 24 CFR part 3280. These standards preempt State and local codes which are not identical to the federal standards for the new construction of manufactured housing. Participating jurisdictions providing HOME funds to assist manufactured housing units must comply with applicable State and local laws or codes. In the absence of such laws or codes, the installation must comply with the manufacturer's written instructions for installation of manufactured housing units. All new manufactured housing and all manufactured housing that replaces an existing substandard unit under the definition of “reconstruction” must be on a permanent foundation that meets the requirements for foundation systems as set forth in 24 CFR 203.43f (c)(i). All new manufactured housing and all manufactured housing that replaces an existing substandard unit under the definition of “reconstruction” must, at the time of project completion, be connected to permanent utility hook-ups and be located on land that is owned by the manufactured housing unit owner or land for which the manufactured housing owner has a lease for a period at least equal to the applicable period of affordability. In HOME-funded rehabilitation of existing manufactured housing the foundation and anchoring must meet all applicable State and local codes, ordinances, and requirements or in the absence of local or state codes, the Model Manufactured Home Installation Standards at 24 CFR part 3285. Manufactured housing that is rehabilitated using HOME funds must meet the property standards requirements in paragraph (b) of this section, as applicable. The participating jurisdiction must document this compliance in accordance with inspection procedures that the participating jurisdiction has established pursuant to § 92.251, as applicable.

(F) Ongoing property condition standards: Rental housing.

- (1) Ongoing property standards.** The participating jurisdiction must establish property standards for rental housing (including manufactured housing) that apply throughout the affordability period. The standards must ensure that owners maintain the housing as decent, safe, and sanitary housing in good repair. The participating jurisdiction's description of its property standards must be in sufficient detail to establish the basis for a uniform inspection of HOME rental projects. The participating jurisdiction's ongoing property standards must address each of the following:
- (i) Compliance with State and local codes, ordinances, and requirements.** The participating jurisdiction's standards must require the housing to meet all applicable State and local code requirements and ordinances. In the absence of existing applicable State or local code requirements and ordinances, at a minimum, the participating jurisdiction's ongoing property standards must include all inspectable items and inspectable areas specified by HUD based on the HUD physical inspection procedures (Uniform Physical Condition Standards (UPCS)) prescribed by HUD pursuant to 24 CFR 5.705. The participating jurisdiction's property standards are not required to use any scoring, item weight, or level of criticality used in UPCS.
 - (ii) Health and safety.** The participating jurisdiction's standards must require the housing to be free of all health and safety defects. The standards must identify life-threatening deficiencies that the owner must immediately correct and the time frames for addressing these deficiencies.
 - (iii) Lead-based paint.** The participating jurisdiction's standards must require the housing to meet the lead-based paint requirements in 24 CFR part 35.
- (2) Projects to which HOME funds were committed before January 24, 2015** must meet all applicable State or local housing quality standards or code requirements, and if there are no such standard or code requirements, the housing must meet the housing quality standards in 24 CFR 982.401.
- (3) Inspections.** The participating jurisdiction must undertake ongoing property inspections, in accordance with § 92.504(d).
- (4) Corrective and remedial actions.** The participating jurisdiction must have procedures for ensuring that timely corrective and remedial actions are taken by the project owner to address identified deficiencies.
- (5) Inspection procedures.** The participating jurisdiction must establish written inspection procedures inspections. The procedures must include detailed inspection checklists, description of how and by whom inspections will be carried out, and procedures for training and certifying qualified inspectors. The procedures must also describe how frequently the property will be inspected, consistent with this section, § 92.209, and § 92.504(d).

APPENDIX E: NHTF PROPERTY STANDARDS

In addition to the Standards outlined in the DAS, for all projects receiving NHTF funds the following provisions will be applicable as per 24 CFR § 93.301.

§ 93.301 Property standards.

(A) New construction projects.

- (1) State and local codes, ordinances, and zoning requirements.** Housing that is newly constructed with HTF funds must meet all applicable State and local codes, ordinances, and zoning requirements. HTF-assisted new construction projects must meet State or local residential and building codes, as applicable or, in the absence of a State or local building code, the International Residential Code or International Building Code (as applicable to the type of housing) of the International Code Council. The housing must meet the applicable requirements upon project completion.
- (2) HUD requirements.** All new construction projects must also meet the requirements described in this paragraph:
 - (i) Accessibility.** The housing must meet the accessibility requirements of 24 CFR part 8, which implements section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), and Titles II and III of the Americans with Disabilities Act (42 U.S.C. 12131-12189) implemented at 28 CFR parts 35 and 36, as applicable. "Covered multifamily dwellings," as defined at 24 CFR 100.201, must also meet the design and construction requirements at 24 CFR 100.205, which implements the Fair Housing Act (42 U.S.C. 3601-3619).
 - (ii) Energy efficiency.** The housing must meet the energy efficiency standards established pursuant to section 109 of the Cranston-Gonzalez National Affordable Housing Act (42 U.S.C. 12709).
 - (iii) Disaster mitigation.** Where relevant, the housing must be constructed to mitigate the impact of potential disasters (e.g., earthquakes, hurricanes, flooding, and wildfires), in accordance with State and local codes, ordinances, or other State and local requirements, or such other requirements as HUD may establish.
 - (iv) Written cost estimates, construction contracts, and construction documents.** The grantee must ensure the construction contract(s) and construction documents describe the work to be undertaken in adequate detail so that inspections can be conducted. The grantee must review and approve written cost estimates for construction and determine that costs are reasonable.
 - (v) Construction progress inspections.** The grantee must conduct progress and final inspections of construction to ensure that work is done in accordance with the applicable codes, the construction contract, and construction documents.
 - (vi) Broadband infrastructure.** For new commitments made after January 19, 2017 for a new construction housing project of a building with more than 4 rental units, the construction must include installation of broadband infrastructure, as this term is defined in 24 CFR 5.100, except where the grantee determines and, in accordance with § 93.407(a)(2)(iv), documents the determination that:
 - (a) The location of the new construction makes installation of broadband infrastructure infeasible; or**

(b) The cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden.

(B) Rehabilitation projects. All rehabilitation that is performed using HTF funds must meet the requirements of this paragraph (b).

(1) Rehabilitation standards. The grantee must establish rehabilitation standards for all HTF-assisted housing rehabilitation activities that set forth the requirements that the housing must meet upon project completion. The grantee's description of its standards must be in sufficient detail to determine the required rehabilitation work including methods and materials. The standards may refer to applicable codes or they may establish requirements that exceed the minimum requirements of the codes. The rehabilitation standards must address each of the following:

- (i) **Health and safety.** The grantee's standards must identify life-threatening deficiencies that must be addressed immediately if the housing is occupied.
- (ii) **Major systems.** Major systems are: structural support; roofing; cladding and weatherproofing (e.g., windows, doors, siding, gutters); plumbing; electrical; and heating, ventilation, and air conditioning. For rental housing, the grantee's standards must require the grantee to estimate (based on age and condition) the remaining useful life of these systems, upon project completion of each major system. For multifamily housing projects of 26 units or more, the grantee's standards must require the grantee to determine the useful life of major systems through a capital needs assessment of the project. For rental housing, if the remaining useful life of one or more major system is less than the applicable period of affordability, the grantee's standards must require the grantee to ensure that a replacement reserve is established and monthly payments are made to the reserve that are adequate to repair or replace the systems as needed. For homeownership housing, the grantee's standards must require, upon project completion, each of the major systems to have a remaining useful life for a minimum of 5 years or for such longer period specified by grantee, or the major systems must be rehabilitated or replaced as part of the rehabilitation work.
- (iii) **Lead-based paint.** The grantee's standards must require the housing to meet the lead-based paint requirements at 24 CFR part 35.
- (iv) **Accessibility.** The grantee's standards must require the housing to meet the accessibility requirements in 24 CFR part 8, which implements section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), and Titles II and III of the Americans with Disabilities Act (42 U.S.C. 12131-12189) implemented at 28 CFR parts 35 and 36, as applicable. "Covered multifamily dwellings," as defined at 24 CFR 100.201, must also meet the design and construction requirements at 24 CFR 100.205, which implements the Fair Housing Act (42 U.S.C. 3601-3619). Rehabilitation may include improvements that are not required by regulation or statute that permit use by a person with disabilities.
- (v) [Reserved].
- (vi) **Disaster mitigation.** Where relevant, the grantee's standards must require the housing to be improved to mitigate the impact of potential disasters (e.g., earthquake, hurricanes, flooding, and wildfires) in accordance with State and local codes, ordinances, and requirements, or such other requirements as HUD may establish.

- (vii) State and local codes, ordinances, and zoning requirements.** The grantee's standards must require the housing to meet all applicable State and local codes, ordinances, and requirements or, in the absence of a State or local building code, the International Existing Building Code of the International Code Council.
- (viii) Uniform Physical Condition Standards.** The standards of the grantee must be such that, upon completion, the HTF-assisted project and units will be decent, safe, sanitary, and in good repair as described in 24 CFR 5.703. HUD will establish the minimum deficiencies that must be corrected under the grantee's rehabilitation standards based on inspectable items and inspected areas from HUD-prescribed physical inspection procedures (Uniform Physical Conditions Standards) pursuant to 24 CFR 5.705.
- (ix) Capital Needs Assessments.** For multifamily rental housing projects of 26 or more total units, the grantee must determine all work that will be performed in the rehabilitation of the housing and the long-term physical needs of the project through a capital needs assessment of the project.
- (x) Broadband infrastructure.** For new commitments made after January 19, 2017 for a substantial rehabilitation project of a building with more than 4 rental units, any substantial rehabilitation, as defined in 24 CFR 5.100, must provide for installation of broadband infrastructure, as this term is also defined in 24 CFR 5.100, except where the grantee determines and, in accordance with § 93.407(a)(2)(iv), documents the determination that:

- (a) The location of the substantial rehabilitation makes installation of broadband infrastructure infeasible;
- (b) The cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden; or
- (c) The structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.

(2) Construction documents and cost estimates. The grantee must ensure that the work to be undertaken will meet the grantee's rehabilitation standards. The construction documents (i.e., written scope of work to be performed) must be in sufficient detail to establish the basis for a uniform inspection of the housing to determine compliance with the grantee's standards. The grantee must review and approve a written cost estimate for rehabilitation after determining that costs are reasonable.

(3) Frequency of inspections. The grantee must conduct an initial property inspection to identify the deficiencies that must be addressed. The grantee must conduct progress and final inspections to determine that work was done in accordance with work write-ups.

(C) Acquisition of standard housing.

(1) Existing housing that is acquired with HTF assistance for rental housing, and that was newly constructed or rehabilitated less than 12 months before the date of commitment of HTF funds, must meet the property standards of paragraph (a) or paragraph (b) of this section, as applicable, for new construction and rehabilitation projects. The grantee must document this compliance based upon a review of approved building plans and Certificates of Occupancy, and an inspection that is conducted no earlier than 90 calendar days before the date of commitment of HTF assistance.

(2) All other existing housing that is acquired with HTF assistance for rental housing must meet the rehabilitation property standards requirements of paragraph (b) of this section. The grantee must document this compliance based upon an inspection that is conducted no earlier than 90 calendar days before the date of commitment of HTF assistance. If the property does not meet these standards, HTF funds cannot be used to acquire the property unless it is rehabilitated to meet the standards of paragraph (b) of this section.

(3) Existing housing that is acquired for homeownership (e.g., down payment assistance) must be decent, safe, sanitary, and in good repair. The grantee must establish standards to determine that the housing is decent, safe, sanitary, and in good repair. At minimum, the standards must provide that the housing meets all applicable State and local standards and code requirements and the housing does not contain the specific deficiencies proscribed by HUD based on the applicable inspectable items and inspected areas in HUD-prescribed physical inspection procedures (Uniform Physical Condition Standards) issued pursuant to 24 CFR 5.705.

The grantee must inspect the housing and document this compliance based upon an inspection that is conducted no earlier than 90 calendar days before the date of commitment of HTF assistance. If the housing does not meet these standards, the housing must be rehabilitated to meet the standards of this paragraph (c)(3) or it cannot be assisted with HTF funds.

(D) Manufactured housing.

Construction of all manufactured housing (including manufactured housing that replaces an existing substandard unit under the definition of “reconstruction”) must meet the Manufactured Home Construction and Safety Standards codified at 24 CFR part 3280. These standards preempt State and local codes which are not identical to the Federal standards for the new construction of manufactured housing. The grantees providing HTF funds to assist manufactured housing units must comply with applicable State and local laws or codes. In the absence of such laws or codes, the installation must comply with the manufacturer’s written instructions for installation of manufactured housing units.

All new manufactured housing and all manufactured housing that replaces an existing substandard unit under the definition of “reconstruction” must be on a permanent foundation that meets the requirements for foundation systems as set forth in 24 CFR 203.43f (c)(i). All new manufactured housing (and all manufactured housing that replaces an existing substandard unit under the definition of “reconstruction”) must, at the time of project completion, be connected to permanent utility hook-ups and be located on land that is owned by the manufactured housing unit owner or land for which the manufactured housing owner has a lease for a period at least equal to the applicable period of affordability.

In HTF-funded rehabilitation of existing manufactured housing the foundation and anchoring must meet all applicable State and local codes, ordinances, and requirements or in the absence of local or State codes, the Model Manufactured Home Installation Standards at 24 CFR part 3285. Manufactured housing that is rehabilitated using HTF funds must meet the property standards requirements in paragraph (b) of this section, as applicable. The grantee must document this compliance in accordance with inspection procedures that the grantee has established pursuant to § 92.301, as applicable.

(E) Ongoing property condition standards: Rental housing.

- (1) Ongoing property standards.** The grantee must establish property standards for rental housing (including manufactured housing) that apply throughout the affordability period. The standards must ensure that owners maintain the housing as decent, safe, and sanitary housing in good repair. The grantee's description of its property standards must be in sufficient detail to establish the basis for a uniform inspection of HTF rental projects. The grantee's ongoing property standards must address each of the following:
- (i)** At a minimum, the grantee's ongoing property standards must include all inspectable items and inspectable areas specified by HUD based on the HUD physical inspection procedures (Uniform Physical Condition Standards (UPCS)) prescribed by HUD pursuant to 24 CFR 5.705.
 - (ii) Health and safety.** The grantee's standards must require the housing to be free of all health and safety defects. The standards must identify life-threatening deficiencies that the owner must immediately correct and the time frames for addressing these deficiencies.
 - (iii) Lead-based paint.** The grantee's standards must require the housing to meet the lead-based paint requirements in 24 CFR part 35.
- (2) Inspections.** The grantee must undertake ongoing property inspections, in accordance with § 93.404.
- (3) Corrective and remedial actions.** The grantee must have procedures for ensuring that timely corrective and remedial actions are taken by the project owner to address identified deficiencies.
- (4) Inspection procedures.** The grantee must establish written inspection procedures. The procedures must include detailed inspection checklists, description of how and by whom inspections will be carried out, and procedures for training and certifying qualified inspectors. The procedures must also describe how frequently the property will be inspected, consistent with section § 93.404(d).

(F) Environmental provisions.

(1) New construction projects environmental requirements

- (i) Historic preservation.**
- (a) Standards.** The project activities (including demolition) must not be performed on properties that are either listed in or determined eligible for listing in the National Register of Historic Places, unless the project activities meet the Secretary of the Interior's Standards for Rehabilitation, either as certified through the Federal and/or State historic rehabilitation tax credit programs or as verified by someone that meets the relevant Secretary of the Interior's Professional Qualification Standards;
 - (b) Archaeological resources.** If archaeological resources or human remains are discovered on the project site during construction, the grantee must consult with affected tribes and/or descendant communities and comply with the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001-3013), State law and/or local ordinance (e.g., State unmarked burial law).
- (ii) Farmland.** Project activities must not result in the conversion of unique, prime, or statewide or locally significant agricultural properties to urban uses.

- (iii) **Airport zones.** Projects are not permitted within the runway protection zones of civilian airports, or the clear zones or accident potential zones of military airfields.
- (iv) **Coastal Barrier Resource System.** No projects may be assisted in Coastal Barrier Resource System (CBRS) units. CBRS units are mapped and available from the U.S. Fish and Wildlife Service.
- (v) **Coastal zone management.** Development must be consistent with the appropriate State coastal zone management plan. Plans are available from the local coastal zone management agency.
- (vi) **Floodplains.** Except as modified below, definitions for terms used below can be found at 24 CFR part 55.

 - (a) Construction and other activities in the 100-year floodplain are to be avoided when practicable. If there are no practicable alternatives to new construction or substantial improvement in the 100-year floodplain, the structure must be elevated at least the base flood elevation (BFE) or flood proofed to one foot above the BFE. Elevated and flood proofed buildings must adhere to National Flood Insurance Program standards. The primary sources of floodplain data are Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs). When FEMA provides interim flood hazard data, such as Advisory Base Flood Elevations (ABFE) or preliminary maps or studies, the latest of these sources must be used.
 - (b) No HTF assistance may be approved with respect to:

 - (1) Any action, other than a functionally dependent use, located in a floodway;
 - (2) Any new construction critical action located in a coastal high hazard area, 100- or 500-year floodplain; or
 - (3) Any non-critical new construction action in a coastal high hazard area, unless the action is reconstruction following destruction caused by a disaster and is designed for location in a coastal high hazard area consistent with the FEMA National Flood Insurance Program requirements for V-Zones.
- (vii) **Wetlands.**

 - (a) No draining, dredging, channelizing, filling, diking, impounding, or related grading activities are to be performed in wetlands. No activities, structures, or facilities funded under this program are to adversely impact a wetland.
 - (b) A wetland means those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. This definition includes those wetland areas separated from their natural supply of water as a result of activities, such as the construction of structural flood protection methods or solid-fill road beds, or mineral extraction and navigation improvements. This definition is independent of the definition of jurisdictional wetland used by the U. S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 et seq.).

- (viii) Explosives and hazards.** Projects must be in compliance with the standards for acceptable separation distance, as set forth at 24 CFR part 51, subpart C.
- (ix) Contamination.** All properties assisted with HTF funds must be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended use of the property.
- (a)** All proposed multifamily (more than four housing units) HTF projects require a Phase I Environmental Site Assessment (ESA-ASTM). If the Phase I ESA identifies recognized environmental concerns (RECs), a Phase II (ESA-ASTM) will be required. ASTM reports must be prepared in accordance with the most current ASTM standard. Single family housing does not require a Phase I ESA.
- (b)** HTF projects must avoid sites located within 0.25 miles of a Superfund or CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) site or other contaminated site reported to Federal, State, or local authorities without a statement in writing from the U.S. Environmental Protection Agency (EPA) or the appropriate State agency that there is no hazard that could affect the health and safety of the occupants or conflict with the intended use of the property.
- (x) Noise.**
- (a) Internal** noise levels: All activities will be developed to ensure an interior noise level of no more than 45 decibels (dB).
- (b) External** noise levels:
- (1) Project sites exposed to less than or equal to 65 dB of environmental noise are acceptable.
- (2) Sites between 65 dB and less than 75 dB are acceptable with mitigation (e.g., noise walls, careful site planning) that result in an interior standard of 45 dB.
- (3) Locations with environmental noise levels of 75 dB or greater may not have noise sensitive outdoor uses (e.g., picnic areas, tot lots, balconies, or patios) and require sound attenuation in the building shell to achieve the 45 dB interior standard.
- (xi) Endangered species.** The grantee must avoid all actions which could jeopardize the continued existence of any endangered or threatened species, as designated by the U.S. Fish and Wildlife Service or National Marine Fisheries Service, or would result in the destruction or adversely modify the designated critical habitat of such species.
- (xii) Wild and scenic rivers.** The grantee must avoid activities that are inconsistent with conservation easements, land-use protections, and restrictions adjacent to wild and scenic rivers, as designated/listed by the Departments of Agriculture or Interior. Maps for the National Wild and Scenic Rivers System are available at the governing departments.
- (xiii) Safe drinking water.** Projects with a potable water system must use only lead-free pipes, solder, and flux.

- (xiv) **Sole-source aquifers.** Project activities should avoid sites and activities that have the potential to contaminate sole source aquifer areas (SSAs). EPA defines a sole or principal source aquifer as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. If the project overlies an SSA, EPA must review the project. EPA review is designed to reduce the risk of ground water contamination that could pose a health hazard to those who use it.

(2) Rehabilitation projects environmental requirements.

(i) Historic preservation.

(a) The project activities (including demolition) must not be performed on properties that are either listed in or determined eligible for listing in the National Register of Historic Places, unless the project activities meet the Secretary of the Interior's Standards for Rehabilitation, either as certified through the Federal and/or State historic rehabilitation tax credit programs or as verified by someone that meets the relevant Secretary of the Interior's Professional Qualification Standards;

(b) **Archaeological resources.** If archaeological resources or human remains are discovered on the project site during construction or rehabilitation, the grantee must consult with affected tribes and/or descendant communities and comply with the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001-3013), State law, and/or local ordinance (e.g., State unmarked burial law).

(ii) **Farmland.** Project activities must not result in the conversion of unique, prime, or locally significant agricultural properties to urban uses.

(iii) **Airport zones.** Projects are not permitted within the runway protection zones of civilian airports, or the clear zones or accident potential zones of military airfields.

(iv) **Coastal Barrier Resource System.** No projects may be assisted in Coastal Barrier Resource System (CBRS) units. CBRS units are mapped and available from the U.S. Fish and Wildlife Service.

(v) **Coastal zone management.** Development must be consistent with the appropriate State coastal zone management plan. Plans are available from the local coastal zone management agency.

(vi) **Floodplains.** Except as modified below, definitions for terms used below can be found at 24 CFR part 55.

(a) Construction and other activities in the 100-year floodplain are to be avoided when practicable. If there are no practicable alternatives to new construction or substantial improvement in the 100-year floodplain, the structure must be elevated at least to the base flood elevation (BFE) or floodproofed to one foot above the BFE. Elevated and floodproofed buildings must adhere to National Flood Insurance Program standards. The primary sources of floodplain data are Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMS). When FEMA provides interim flood hazard data, such as Advisory Base Flood Elevations (ABFE) or preliminary maps or studies, the latest of these sources must be used.

(b) No HTF assistance may be approved with respect to:

- (1) Any action, other than functionally dependent uses, located in a floodway;
 - (2) Any critical action located in a coastal high hazard area, 100- or 500-year floodplain; or
 - (3) Any non-critical action located in a coastal high hazard area, unless the action is designed for location in a coastal high hazard area consistent with the FEMA National Flood Insurance Program requirements for V-Zones. "Any non-critical action in a coastal high hazard area, unless the action is reconstruction following destruction caused by a disaster and is designed for location in a coastal high hazard area consistent with the FEMA National Flood Insurance Program requirements for V-Zones."
- (vii) Wetlands.** No rehabilitation of existing properties that expands the footprint into a wetland is allowed. A wetland means those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. This definition includes those wetland areas separated from their natural supply of water as a result of activities such as the construction of structural flood protection methods or solid-fill road beds and activities such as mineral extraction and navigation improvements. This definition is independent of the definition of jurisdictional wetland used by the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 et seq.).
- (viii) Explosives and hazards.** If the rehabilitation of the building increases the number of dwelling units, then the project must be in compliance with the standards for acceptable separation distance as set forth at 24 CFR part 51, subpart C.
- (ix) Contamination.** All properties assisted with HTF funds must be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended use of the property:
- (a) All proposed multifamily (more than four housing units) HTF project activities require a Phase I Environmental Site Assessment (ESA - ASTM). If the Phase I ESA identifies recognized environmental concerns (RECs), a Phase II (ESA-ASTM) will be required. ASTM reports must be prepared in accordance with the most current ASTM standard. Single family housing does not require a Phase I ESA.
 - (b) HTF projects must avoid sites located within 0.25 miles of a Superfund or CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) site or other contaminated site reported to Federal, State, or local authorities without a statement in writing from EPA or the appropriate State agency that there is no hazard that could affect the health and safety of the occupants or conflict with the intended utilization of the property.

(x) Noise.

(a) Internal noise levels. All activities will be developed to ensure an interior noise level of no more Than 45 decibels (dB).

(b) [Reserved].

(xi) Endangered species.

(a) The grantee must avoid all actions that could jeopardize the continued existence of any species designated by the U.S. Fish and Wildlife Service or National Marine Fisheries Service as endangered or threatened.

(b) The grantee must avoid all actions that adversely modify the critical habitat of such species.

(xii) Wild and scenic rivers. The grantee must avoid activities that are inconsistent with conservation easements, land-use protections, and restrictions adjacent to wild and scenic rivers, as designated/listed by the Departments of Agriculture and Interior. Maps for the National Wild and Scenic Rivers System are available at the governing departments.

(xiii) Safe drinking water. Projects with a potable water system must use only lead-free pipes, solder, and flux.

(xiv) Sole-source aquifers. Project activities should avoid sites and activities that have the potential to contaminate sole source aquifer areas (SSAs). The EPA defines a sole or principal source aquifer as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. If the project overlies an SSA, the EPA must review the project. The EPA review is designed to reduce the risk of ground water contamination, which could pose a health hazard to those who use it.

(3) Acquisition projects environmental requirements.

(i) Existing housing that is acquired with HTF funds, and has been newly constructed or rehabilitated less than 12 months before the commitment of HTF funds must meet the property standards at paragraph (f)(1) of this section.

(a) All other existing housing that is acquired with HTF assistance must meet the property standards requirements of paragraph (f)(2) of this section.

(ii) If under paragraph (f)(3)(i)(A) or paragraph (B) of this section, the property does not meet these standards, with the exception of the noise standards in paragraph (f)(2) of this section, HTF funds cannot be used to acquire the property.

(4) Manufactured housing environmental requirements. Manufactured housing is subject to the environmental standards in paragraph (f)(1) of this section for new construction or paragraph (f)(2) of this section for rehabilitation, as applicable. If an existing property does not meet these standards, HTF funds cannot be used to acquire the property unless it is rehabilitated to meet the standards in paragraph (f)(2), as applicable, with the exception of noise standards in paragraph (f)(2)(x).

APPENDIX F: CDBG-DR PROPERTY STANDARDS

In addition to the Standards outlined in the DAS, for all projects receiving CDBG-DR funds the following provisions will be applicable as per 84 FR 5844.

Housing and Related Floodplain Issues

Housing-related eligibility waivers.

(1) Green Building Standard for Replacement and New Construction of Residential Housing.

Grantees must meet the Green Building Standard in this subparagraph for: (i) All new construction of residential buildings and (ii) all replacement of substantially damaged residential buildings. Replacement of residential buildings may include reconstruction (i.e., demolishing and rebuilding a housing unit on the same lot in substantially the same manner) and may include changes to structural elements such as flooring systems, columns, or load bearing interior or exterior walls.

(2) Meaning of Green Building Standard. For purposes of this notice, the Green Building Standard means the grantee will require that all construction covered by subparagraph a, above, meet an industry-recognized standard that has achieved certification under at least one of the following programs:

- (i) ENERGY STAR (Certified Homes or Multifamily High-Rise);
- (ii) Enterprise Green Communities;
- (iii) LEED (New Construction, Homes, Midrise, Existing Buildings Operations and Maintenance, or Neighborhood Development);
- (iv) ICC–700 National Green Building Standard;
- (v) EPA Indoor AirPlus (ENERGY STAR a prerequisite); or
- (vi) Any other equivalent comprehensive green building program acceptable to HUD. Grantees must identify which Green Building Standard will be used in the program policies and procedures.

(3) Standards for rehabilitation of nonsubstantially damaged residential buildings. For rehabilitation other than that described in subparagraph a, above, grantees must follow the guidelines specified in the HUD CPD Green Building Retrofit Checklist. Grantees must apply these guidelines to the extent applicable to the rehabilitation work undertaken, including the use of mold resistant products when replacing surf aces such as drywall. When older or obsolete products are replaced as part of the rehabilitation work, rehabilitation is required to use ENERGY STAR-labeled, WaterSense-labeled, or Federal Energy Management Program (FEMP)-designated products and appliances. For example, if the furnace, air conditioner, windows, and appliances are replaced, the replacements must be ENERGY STAR-labeled or FEMP-designated products; WaterSense-labeled products (e.g., faucets, toilets, showerheads) must be used when water products are replaced. Rehabilitated housing may also implement measures recommended in a Physical Condition Assessment (PCA) or Green Physical Needs Assessment (GPNA).

(4) Implementation of green building standards.

- (i)** For construction projects completed, underway, or under contract prior to the date that assistance is approved for the project, the grantee is encouraged to apply the applicable standards to the extent feasible, but the Green Building Standard is not required.
- (ii)** For specific required equipment or materials for which an ENERGY STAR- or WaterSense-labeled or FEMP-designated product does not exist, the requirement to use such products does not apply.

(5) Elevation standards for new construction, repair of substantial damage, or substantial improvement. The following elevation standards apply to new construction, repair of substantial damage, or substantial improvement of structures located in an area delineated as a flood hazard area or equivalent in FEMA's data source identified in 24 CFR 55.2(b)(1).

- (i)** All structures, defined at 44 CFR 59.1, designed principally for residential use and located in the 100-year (or 1 percent annual chance) floodplain that receive assistance for new construction, repair of substantial damage, or substantial improvement, as defined at 24 CFR 55.2(b)(10), must be elevated with the lowest floor, including the basement, at least two feet above the base flood elevation.
- (ii)** Mixed-use structures with no dwelling units and no residents below two feet above base flood elevation, must be elevated or floodproofed, in accordance with FEMA flood proofing standards at 44 CFR 60.3(c)(3)(ii) or successor standard, up to at least two feet above base flood elevation.

(a) Please note that grantees should review the UFAS accessibility checklist available at <https://www.hudexchange.info/resource/796/ufas-accessibilitychecklist/> and the **HUD Deeming Notice, 79 FR 29671** (May 23, 2014) to ensure that these structures comply with accessibility requirements.

All Critical Actions, as defined at 24 CFR 55.2(b)(3), within the 500-year (or 0.2 percent annual chance) floodplain must be elevated or flood proofed (in accordance with the FEMA standards) to the higher of the 500-year floodplain elevation or three feet above the 100-year floodplain elevation. If the 500-year floodplain is unavailable, and the Critical Action is in the 100-year floodplain, then the structure must be elevated or flood proofed at least three feet above the 100-year floodplain elevation. Critical Actions are defined as an "activity for which even a slight chance of flooding would be too great, because such flooding might result in loss of life, injury to persons or damage to property." For example, Critical Actions include hospitals, nursing homes, police stations, fire stations and principal utility lines.

Applicable State, local, and tribal codes and standards for floodplain management that exceed these requirements, including elevation, setbacks, and cumulative substantial damage requirements, must be followed.

(6) Broadband infrastructure in housing. Any substantial rehabilitation, as defined by 24 CFR 5.100, or new construction of a building with more than four rental units must include installation of broadband infrastructure, except where the grantee documents that: (a) The location of the new construction or substantial rehabilitation makes installation of broadband infrastructure infeasible; (b) the cost of installing broadband infrastructure would result in a fundamental alteration in the nature of its program or activity or in an undue financial burden; or (c) the structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible.

(7) Resilient Home Construction Standard. Grantees are strongly encouraged to incorporate a Resilient Home Construction Standard, meaning that all construction covered by subparagraph (a) meet an industry-recognized standard such as those set by the FORTIFIED Home™ Gold level for new construction of single-family, detached homes; and FORTIFIED Home™ Silver level for reconstruction of the roof, windows and doors; or FORTIFIED Home™ Bronze level for repair or reconstruction of the roof; or any other equivalent comprehensive resilient or disaster resistant building program. Further, grantees are strongly encouraged to meet the FORTIFIED Home™ Bronze level standard for roof repair or reconstruction, for all construction covered under subparagraph B.32.c.

FORTIFIED Home™ is a risk-reduction program providing construction standards for new homes and retrofit standards for existing homes, which will increase a home's resilience to natural hazards, including high wind, hail, and tropical storms. Insurers can provide discounts for homeowner's insurance for properties certified as FORTIFIED. Grantees should advise property owners to contact their insurance agent for current information on what discounts may be available. More information is also available at: <https://fortifiedhome.org/>.

In addition to the requirements listed above, all project receiving CDBG-DR funds must comply with the HUD Lead Safe Housing Rule outlined in **24 CFR part 35, subparts A, B, J, K, and R**, as well as the environmental requirements at **24 CFR part 58**.