



DESIGN AND ARCHITECTURAL STANDARDS

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Introduction and Scope

The following design and architectural standards apply to all competitive Ohio Housing Finance Agency (OHFA) multifamily affordable housing developments including but not limited to the Housing Tax Credit and Housing Development Assistance Program (HDAP). The Multifamily Lending Program and bond transactions that do not utilize other OHFA financing tools are excluded from these requirements. All other program participants shall conform to these requirements unless waived by OHFA in writing.

The intent of these standards is to:

- Enhance consistency in the design approval process;
- Promote using durable materials that reduce long-term maintenance costs;
- Create a healthy living environment for residents of all backgrounds and abilities;
- Enhance energy efficiency to reduce operating costs; and
- Appropriately balance high quality materials with cost containment principals.

Unless otherwise stated, these standards embody only the minimum requirements necessary to receiving OHFA funding. Standards may be increased or modified by programmatic requirement or incentive; applicants shall consult the relevant program guidelines for further information. Development teams are encouraged to exceed these standards and implement creative solutions to best serve residents' needs.

All requirements enumerated herein are exclusive of federal, state, and local law or regulation that may further dictate design requirements. Where applicable, developments shall conform to the requirements set forth in the Ohio Development Services Agency's Residential Rehabilitation Standards, Fair Housing Amendment Act of 1988, Section 504 of the Rehabilitation Act of 1973, and/or the Americans with Disabilities Act of 1990. If an OHFA design requirement differs from a legal or regulatory requirement, the highest standard compatible with legal compliance, as determined by OHFA, shall be effective unless otherwise waived by OHFA.

Historic preservation developments may seek an exception to these requirements as required or recommended by the Ohio Historic Preservation Office.

Unless otherwise noted, these standards apply to all new construction, all Gut Rehabilitation, and to any element in a moderate or substantial rehabilitation that is being replaced or renovated as part of the scope of work. OHFA reserves the right to waive any requirement necessary for the effective administration of its programs.

Rehabilitation and adaptive reuse projects must provide a compelling need to replace materials and/or features at 50% **Expected Useful Life** or more. Items that have 75% EUL or more remaining are not eligible for replacement using OHFA funds as specified in the sources and uses section of the financing application. OHFA will review exceptions on a case-by-case basis for replacement of items with 75% EUL or more when required to obtain a green certification.

Definitions

Unless otherwise noted, all definitions shall be the same as the building code applicable to the construction type.

Dedicated Program Space is a room or space outside the residential living unit designed exclusively for tenant use that has a fixed, program-driven purpose. Examples include but are not limited to counseling space for adults and children, wellness and health clinic areas, and day care centers.

Common Space is a room or space outside the residential living unit designed for resident use that does not impose a usage fee or participation in an activity for free enjoyment of the space. Examples include but are not limited to a hallways, elevators, multipurpose room, library, fitness center, computer room, meeting room, laundry room, lobby, rental office and management space, owner/manager storage space.

Support Space is a room or space outside the residential living unit that is not intended for resident use and includes but is not limited to mechanical areas, janitor closets, management office areas, and supply and mechanical storage areas.

New Construction is site preparation for, and construction of, entirely new structures and/or adaptive reuses of existing structures whether or not the site was previously occupied.

Net Rentable Area is the sum of the unit area, balcony area, and tenant storage area as further described in the OHFA architect certification form.

Expected Useful Life (EUL) is the average amount of time in years that an item, component, or system is estimated to function when installed new and assuming routine maintenance is practiced.

Gut Rehabilitation shares the same definition as in the Unified NSP 1 and NSP3 Notice issued October 19, 2010, and is general replacement of the interior of a building that may or may not include changes to structural elements such as flooring systems, columns or load bearing interior or exterior walls. Gut Rehabilitation may or may not also be a "Substantial Rehabilitation" as defined by the Qualified Allocation Plan.

Senior Developments are development that meet the Housing for Older Persons exemption of the Fair Housing Act and, if applicable, competed under a Senior pool in the relevant OHFA funding program.

Permanent Supportive Housing (PSH) is a development that competes as and is funded under the Permanent Supportive Housing sub-pool of the Qualified Allocation Plan.

Code Compliance

Exceptions will not be considered.

All developments with four or more units shall conform to the requirements set forth in the **Ohio Building Code**, the **Ohio Mechanical Code**, and the **Ohio Plumbing Code**. A licensed architect shall certify compliance with these codes. Further compliance with local codes, zoning codes, and fire codes may be required by the jurisdiction.

All developments with three or fewer units shall conform to the requirements set forth in the **Residential Code of Ohio for One-, Two-, and Three-Family Dwellings**. A licensed architect shall certify compliance with this code. In the HDGF program only, OHFA reserves the right to permit a non-architect who is an otherwise licensed design professional with experience in plan reviews to certify compliance with small-scope rehabs.

Durability and Sustainability

The following requirements attempt to balance the need for long-lasting designs that will reduce maintenance requirements during the compliance period with the equal need for cost effective designs that promote an efficient use of resources in construction as well as during occupancy.

Durable Materials

Exceptions will be considered.

Where construction, replacement, or renovation is required, the following elements shall be constructed with materials that have a 30 years EUL or longer; alternately, materials may be used that have a 30-year warranty that covers 75% or more of material replacement cost. Any “permissible material” described below will be deemed to meet these requirements.

Pre-approved materials are specified on the next page, developments may seek an OHFA exception to use materials not provided on this list. If a conflict between the below durability requirements and a green certification requirement exists, the highest durability standard that is compatible with certification shall prevail.

Element	Permissible Material
Exterior Walls	<ul style="list-style-type: none"> • Wood Stud • Brick or block • Manufactured Stone • Metal Stud Framing
Exterior Veneers	<ul style="list-style-type: none"> • Vinyl siding 0.042-0.055 • Portland Cement Stucco, no EIFS • Fiber Cement Board • Brick • Thin Stone • Thin Brick only if it is not metal lath
Roofing	<ul style="list-style-type: none"> • Preformed metal • 30-year asphalt shingles • 30-year membrane roof (EPDM, PVC, TPO)
Residential Living Unit Floors	<ul style="list-style-type: none"> • Ceramic tile • Wood • Resilient Flooring, Vinyl Plank, Vinyl Tile • Stained Concrete • Solution-dyed nylon with anti-microbial and water resistant backing (also see Floor Covering limitations)
Insulation	<ul style="list-style-type: none"> • Roof insulation shall be R38 minimum for all buildings
Windows and Exterior Doors	<ul style="list-style-type: none"> • New and replacement windows and exterior doors must be Energy Star rated for zone 5 and wind rated for 90mph or DP-20 minimum. Exterior doors shall be insulated core.
Moisture-Resistant Drywall	<ul style="list-style-type: none"> • Moisture-resistant gypsum board ("paperless board") or equivalent must be used on all horizontal walls in the bathroom and within four feet of any other water sources, where the drywall can be splashed, such as kitchen sink, next to water heater, and/or clothes washer. • Water-resistant gypsum board or equivalent shall be provided behind any tub/shower unit located on an exterior wall. Water-resistant gypsum, when used on ceilings must be rated for the span.
Counter Tops	<ul style="list-style-type: none"> • Plastic laminate on moisture resistant, high-density fiberboard substrates
Cabinets and Drawers	<ul style="list-style-type: none"> • Solid wood doors/fronts • Wood stile with plywood panel • Plywood frame
Water Heater	<ul style="list-style-type: none"> • High efficiency, meeting Energy Star requirements • Other high efficiency element that meets green certification requirements
HVAC	<ul style="list-style-type: none"> • High efficiency, meeting Energy Star requirements • Other high efficiency element that meets green certification requirements
Electrical	<ul style="list-style-type: none"> • All newly installed or replacement interior luminaries shall be Energy Star qualified. All light bulbs must have a 10,000-hour minimum life. Residential fixtures shall use common lamp base type fixtures such as A-19 or tube bi-pin. Bases such as GU-24 and similar specialty bases are prohibited in residential area and discouraged in multitenant buildings as well. LED lights are encouraged and required in all unheated areas. • Other high efficiency electrical that meets green certification requirements
Appliances	Energy Star certified

The following materials and techniques are encouraged but not required:

- PEX-type tubing
- A manifold system with no cuts or fitting between manifold and fixture
- Tankless water heaters

Energy Efficiency Certification

Exceptions will not be considered.

All multifamily developments must obtain one of the following certifications:

- Energy Star Performance or Prescriptive Path applicable to development type;
- 2015 Enterprise Community Partners Green Communities;
- Ohio Enterprise Community Partners Green Limited Scope Rehabilitation Overlay (not applicable in the Competitive Housing Tax Credit program);
- Leadership in Energy & Environmental Design (LEED) Silver Certification by the U.S. Green Building Council; or
- ICC 700 National Green Building Standards (NGBS) by Home Innovation Research Labs Version 4.

All single-family homes shall obtain one of the above certifications or may substitute for Energy Star Certified New Home.

Evidence of final certification from a HERS rater, or otherwise qualified and licensed professional as approved by OHFA, is required upon construction completion.

The following materials and techniques are encouraged but not required: PHIUS+ Project Certification (Passive House), DOE Zero Energy Ready Home (with or without renewable energy system), and grey water systems.

Developments that use the Energy Star Portfolio Manager must allow OHFA full access to this data for a minimum of five years or the agreement period, whichever is shorter. To share a property with OHFA, users should send a connection request to "OHFAPPD16." Applicants who will use a comparable third party system to measure and maintain energy consumption data must also share information with OHFA in a manner that allows the Agency access to key metrics and the ability to compare the energy performance of applicable buildings to other developments.

General and Common Area Requirements

OHFA Square Footage Calculation

All multifamily developments must use Building Owner Management Association (BOMA) Multifamily Standards using the “gross method”. Single-family developments must use BOMA “Gross Area Measurement Standards”. All square footages must be calculated and certified in the AHFA/GFA by the Architect of Record. All buildings within the property boundary must be included in the gross area including all buildings with HUD BIN numbers, free standing community buildings, maintenance buildings and sheds, picnic shelters, garages, carports, porches, etc. The calculation does include commercial, market rate, manager unit, Common Space, Dedicated Program Space, and tenant storage. The calculation does not include trash enclosures, concrete patios without roofs, and sidewalks.

Community Integration

Recommended best practice.

Developments should coordinate with or complement the local architecture and promote resident integration with the broader neighborhood. They should be culturally appropriate for the population being served and the community in which they are situated. Design should promote community safety to the greatest extent practicable.

Common Area Restrictions

Exceptions will be considered.

The maximum common area shall not exceed 10 percent of the total gross building square footage. Dedicated Program Space is excluded from this calculation. Circulation space is excluded from this calculation. Existing rental housing units are exempted from this criteria unless the footprint of the original building is expanded. Single-family homes are exempted from this requirement for common area within the unit if those spaces are exclusively for use of that individual resident.

Gutters and Downspouts

Exceptions will not be considered.

All downspouts shall empty onto concrete splash blocks with a positive slope away from the building or be piped to an appropriate location.

Main Entry

Exceptions will be considered.

All main entries shall have a roof or awning over the entry area.

Parking

Exceptions will not be considered.

Parking lots shall satisfy all local requirements.

Play Areas and Amenities

Recommended best practice.

All developments are encouraged to contain or be located in close proximity play space, walking paths, or other recreational features and amenities appropriate to the population being served.

In-Unit Requirements

Minimum Residential Unit Sizes

Exceptions will be considered.

Unit sizes, also called “residential living spaces”, shall meet the following minimum square footage requirements; OHFA reserves the right to limit the size of units during the application review process:

- 0 Bedroom Units: 450 SQFT
- 1 Bedroom Units: 650 SQFT
 - **PSH:** 450 SQFT
 - **Assisted Living:** 450 SQFT; all 1 bedrooms average no more than 500 SQFT
- 2 Bedroom Units: 850 SQFT
 - **PSH:** Exceptions will be considered
- 3 Bedroom Units: 1,000 SQFT
- 4+ Bedroom Units: 1,200 SQFT

Single Room Occupancy units are not permitted. Senior Developments may not have any unit larger than two bedrooms. Single-family homes must contain three or more bedrooms.

Bedroom Requirements

Exceptions will be considered.

The following size requirements for bedrooms shall apply:

- First Bedroom: Must be 120+ SQFT
- Second Bedroom: Must be 110+ SQFT
- Third+ Bedrooms: Must be 100+ SQFT

OHFA encourages bedrooms on accessible floors wherever practical.

Double Occupancy

Exceptions will not be considered.

At a minimum, three- and four-bedroom units shall support double occupancy in each bedroom under local zoning and building requirements.

Bathrooms

Exceptions will be considered.

The following are both the minimum and maximum number of bathrooms permitted for each newly constructed unit size. This section does not apply to rehabilitation.

- 0 Bedroom Units: 1 full bathroom
- 1 Bedroom Units: 1 full bathroom
- 2 Bedroom Units: Either 1 full bathroom or 1.5 bathrooms
- 3 Bedroom Units: 1.5 bathroom
- 4+ Bedroom Units: 2 full bathrooms

Multi-story townhomes must have an accessible bathroom or half-bathroom on the accessible-floor.

Any unit that is required to meet Section 504 accessibility requirements shall have roll-in showers.

General Unit Features

Exceptions will not be considered.

All units shall:

- Be air conditioned
- Have interior doors with a minimum 32" width (New Construction only), including closet doors
- Have hallways with a minimum 42" width (New Construction only)
- Use lever-handles for all plumbing fixtures and for all non-closet doors
- Contain adequate storage space for unit residents; adequacy will vary by population served and construction type.

Kitchen and Appliances

Exceptions will be considered.

All residential unit kitchens shall include either (1) a 30-inch-wide stand-alone range or (2) a cooktop and wall oven. They shall also include a refrigerator; under-counter and compact refrigerators will not be accepted. All kitchen appliances that are replaced or installed, including but not limited to those listed above, shall be new. All refrigerators, dishwashers, clothes washers, and clothes dryers shall be Energy Star rated.

All Assisted Living units must be hard wired for stove and stove must be installed and made available at owner expense if requested. Exceptions will not be considered.

Except in PSH, Assisted Living, or 0-bedroom units, units must include washer and dryer hookup unless laundry facilities are provided on-site.

Floor Coverings

Exceptions will be considered.

Floor coverings shall be non-glare and slip resistant. Carpet is only permitted in residential living units and Support Space. In residential living units, carpet is not permitted in kitchen or bathroom areas. If used, carpet shall be solution-dyed nylon with closed-cell. If a pad is required, high-density pad shall be used.

Unit Configuration Changes

Unit configurations are locked in at final underwriting. The development shall not change, convert, modify, reconfigure, or otherwise alter the number of bedrooms and the size of those bedrooms without prior written approval from OHFA. For example, the development may not convert efficiency units to one-bedroom units by adding a door unless approved by OHFA.

Accessibility

Accessibility

Exceptions will only be considered for rehabilitations where compliance is technically infeasible.

In all OHFA funded projects, five percent of all units in each development shall meet Section 504 requirements. An additional two percent of all units shall be sensory compatible for persons with sight and hearing disorders. Site features and common areas shall be accessible including but not limited to dumpsters, outdoor grills, parking, play areas, and community shelters. Accessible units should be provided in a variety of unit configurations.

Accessible kitchens, in both common and private areas, must have at least a 12" x 15" appliance-free counter-space adjacent to all appliances. Accessible unit stoves must be at the same height as adjacent counter tops. Developers must notify OHFA of the Safe Harbor or project accessibility standard used for all projects.

Elevators

Exceptions will not be considered.

Senior Developments and PSH buildings shall not exceed one story unless the building has an elevator accessible to all residents. All other development types shall not exceed three stories unless the building has an elevator accessible to all residents.

Universal Design

Exceptions will not be considered.

OHFA endorses the Universal Design concept and all units utilizing OHFA resources must be designed to meet those principals to the greatest extent practicable. OHFA encourages developments to incorporate the **Principals of Universal Design** and the **Goals of Universal Design**. Applicants must complete the Design and Construction Features Agreement identifying the usability features of the design. OHFA staff may work with each applicant to help achieve maximum application of these concepts.

Operations and Enforcement

Exception Requests

OHFA will consider exception requests for items specifically noted above. OHFA will also consider exceptions for PSH developments that meet HUD minimum property standards.

All requests for exceptions must be on an OHFA-approved form and shall include reasonable justification for the exception and shall be submitted to OHFA on or before the date indicated in the program calendar. Exception requests must have a written description of specific features, quantities, location of the request, and drawings that give context to the request. The OHFA staff architect will review requests and make a recommendation to the management team to accept, deny, or modify the exception. The management team will make a final determination by the date indicated in the program calendars.

Project Capital Needs Assessment

Capital Needs Assessments must meet the OHFA Capital Needs Assessment Standards and conform to ASTM E2018-08 standards. In addition, the CNA must include an Immediate Repairs Table and Replacement Reserves/Ongoing Physical Needs tables. It must 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. The Provider will perform an on-site inspection to document the required information. At a minimum, this will involve viewing:

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

Preliminary Architectural Submissions

Proposal applications must submit preliminary drawings that are 11x17 ("scale to fit") and include:

1. A cover sheet with development title, development team, drawing index, building areas and code information;
2. A site plan;
3. A landscape plan;
4. A floor plan with dimension, room designations and proposed finishes;
5. Exterior elevations with material notations;
6. Typical wall sections; and
7. Drawings and specifications for HVAC, plumbing, and electric or similar items in the scope of work.

Preliminary drawings must be submitted as paper and electronic (PDF required, DXF upon request). Proposed developments must also submit a Design and Construction Features Agreement. Existing Rental Unit developments must also submit an Existing Units History Narrative.

Final Architectural Submissions

Applicants must submit 80 percent complete permit sets, which include final plans for all trades, at the time of final application. Unless waived by OHFA in writing, all sets must be produced or authored by an Ohio-licensed architect. Sets must show compliance with the preliminary submittal, including the Design and Construction Features Agreement. 80 percent plans must be submitted in separate PDF files for drawings and specifications that include all site plans, dimensioned floor plans, elevations, wall sections, structure, finishes, details and mechanical plans. A copy of the final executed Design and Construction Features Agreement must be included in 80 percent plan sets. Additionally, each development must have dimensioned floor plans submitted in DXF or DWG AutoCAD R-14 format and an 11"x17" plan hard copy (dimensioned floor plans only). It is preferred that the projects architects polyline area lines be included. If drawings are externally referenced (xref), submissions must be bound (xbind) prior to creating files for OHFA.

Architectural drawings must have a dimensioned plumbing plan and control points located for rough-in site verification. All pipes-through-floor and the walls they are intended to be located within must be dimensioned. OHFA strongly encourages a surveyor to locate wall and through-slab pipe penetrations. Foundation over dig must be filled with insulation or forms and then back filled.

OHFA Staff Architect Role

Applicants must receive design approval from OHFA before proceeding with any element of construction or rehabilitation. OHFA will review plans for conformity to the requirements contained herein which include but are not limited to appropriateness for occupancy served, life safety, durability, quality of life, and scope of work.

Decisions made by the OHFA Staff Architect may be appealed to the PP&D Operations Manager in writing. Appeals must be specific and, where appropriate, cite to the governing regulation that conflicts with the Staff Architect decision.

Inspections and Construction Monitoring

The PP&D Project Administration team ensures that the development progresses according to schedule and that the recipient fulfills all terms of the funding agreements and related policies. Staff will conduct periodic site visits during construction to provide technical assistance, verify that the project is on schedule to meet required deadlines, and to ensure requirements of the various funding sources are being met.

Projects shall notify OHFA when construction begins and should invite an OHFA representative to any pre-construction meetings. Regular communication with the Project Administration team ensures that projects meet all the necessary requirements and are completed on time.

Competitive and Non-competitive Housing Tax Credit projects and HDAP projects are required to complete the OHFA Quarterly Construction Monitoring Report (the Report), available on the OHFA Project Administration [webpage](#). The Report must be submitted quarterly beginning the first quarterly reporting period following either OHFA Board approval or actual construction start, whichever is earlier. Reports are due January 1, April 1, July 1, and October 1 of each year until the project is placed into service. OHFA reserves the right to suspend disbursement of funds if the Report is not submitted.

HDAP Construction Changes and Change Orders

As part of the HDAP construction monitoring and/or draw process, OHFA reserves the right to request copies of change orders if additional information is needed to verify project costs. Additionally, copies of change orders may be requested in order to verify that commitments made by the recipient during the application process will still be met.

Penalties

Violations of the requirements set forth in this Design & Architectural Standards, failure to honor commitments made in the application process, or other instances of noncompliance with OHFA requirements may result in any or all the following non-exhaustive sanctions:

- Refusal to increase, amend, or otherwise alter credit allocations;
- Removal from application consideration;
- Cancellation or reduction of the reservation of HTCs;
- Recapture of resources;
- Removal from a position of Good Partnership for a period of one year or more;
- A reduction in the developer fee in an amount to be determined by OHFA;
- Monetary fee, as set forth in the Fee Schedule section, as may be modified;
- Permanent or temporary prohibition from participation in OHFA funding programs;
- Reduction in the number of applications an entity may submit/receive in future cycles;
- Referral to the IRS for investigation or penalty;
- Referral to law enforcement for criminal and/or civil prosecution; and/or
- Other remedies as OHFA deems necessary.

Fraud, Waste, and Abuse

Documented instances of fraud, waste, or abuse may result in any action listed in the above Penalties section. If you believe a person or entity is attempting to or has committed fraud using one of OHFA's multifamily financing tools, you may report the suspected activity on our website. Be advised that OHFA will not discuss the results of any investigation that may come from your report. You will be contacted again only if it is necessary to complete the investigation.

Disclaimer

Nothing in these Design & Architectural Standards shall be constructed to waive, override, modify, or extinguish any legal or regulatory responsibility. OHFA will not certify project adherence to building code or other legal or design requirements.

Resources

The following resources are frequently used by design professionals in the multifamily housing sector and may be informative for applicants to OHFA financing programs.

- [Accessibility \(Design and Construction\) Requirements for Covered Multifamily Dwellings Under the Fair Housing Act](#)
- [Building Owners and Managers Association International Standards](#)
- [Fair Housing Act Design Manual](#)
- [Guidelines on Addressing Infestations in HUD-insured and Assisted Multifamily Housing](#)
- [Narrowing the Digital Divide Through Installation of Broadband Infrastructure in HUD-Funded New Construction and Substantial Rehabilitation of Multifamily Rental Housing](#)