



Homeownership Design Standards

The criteria for the *Homeownership Design Standards* have been developed to ensure minimum standards of quality, function, efficiency, and durability of homeownership projects funded by the Agency. The goals and objectives of the Standards are to aid applicants and architect in producing functional, safe, durable, and cost-effective homes that adds value to communities, pride amongst owners, and promotes healthy living.

Projects should utilize standard materials and construction practices which will yield an attractive and appealing design that can be efficiently built at a reasonable cost. Project designs should promote and facilitate routine operations and proactive maintenance.

Applicability

The *Homeownership Design Standards* are applicable to all home ownership financing programs, where referenced in the New York State Homes and Community Renewal financing term sheet. The criteria outlined in this document are applicable to all New Construction projects. Rehabilitation projects shall incorporate these standards to the greatest extent feasible and as applicable.

The criteria outlined in this booklet are broken down into the various housing typologies that may be applicable to the project as follows:



Criteria Applicable to All Developments _ Applicable to all multifamily housing, triplex, duplex, townhouses, single-family, and other similar housing typologies.



Criteria Applicable to Multi-family Developments Only_ Applicable to all Multifamily buildings. For the purposes of these Standards, “Multifamily” is defined as a single building or structure with four or more dwelling units.

These Standards do not exclude compliance with other criteria that may be required by the project funding source(s) or required by applicable codes, laws or regulations.

Waivers

Minor deviations from these requirements will be allowed via Design Waiver Request if necessary to avoid costly structural changes in rehabilitation projects, to meet specific programmatic needs of a project, or if the proposal results in a superior design solution. Requests to waive a requirement will be reviewed on a case -by-case basis by the Vice President of the Design Construction & Environmental Unit (DC&E) and/or the respective DC&E Unit

Director. Other offices of the Agency will be consulted when relevant. Evaluations of waiver requests will include the appropriateness of the proposed alternative with emphasis on:

- Impact to the owners
- Cost-effectiveness
- Functional appropriateness
- Durability and operating appropriateness
- Impacts on operating costs/efficiency
- To match current market demands in mixed-income projects with market-rate units.

All waiver requests must be submitted via the Design Waiver Request Form. The Design Waiver Request Form can be obtained online at <http://www.hcr.ny.gov>.

Environmental Standards

The following criteria shall be included where applicable or specifically stated as required.

1. All newly constructed and renovated buildings funded by the Agency and located in EPA Zone 1 or 2 shall address radon in accordance with the EPA Current Radon Standard of Practice for the applicable building type and in accordance with this section.

New and substantial rehabilitation projects shall install a passive radon mitigation system in accordance with the applicable Standard of Practice, including collectors below the slab and a vent pipe through the roof. Vertical vent pipes shall run at the interior of buildings to avoid frosting inside the vent stack during cold weather. Include electrical junction box(es) above the highest occupied floor level for future system activation.

Moderate rehabilitation projects shall install active radon-reduction measures in accordance with the applicable Standard of Practice should testing at the completion of the rehabilitation confirm the presence of radon gas in the building exceeding the EPA action level. It is highly advisable to include radon reduction measures in the base scope of work to avoid costly retrofits should elevated radon levels be discovered after rehabilitation has been completed.

Radon testing in all new and rehabilitation projects shall be conducted at the completion of construction or rehabilitation work, prior to occupancy/re-occupancy. A radon professional shall oversee testing as per the applicable Standard of Practice meeting US-EPA short-term, closed building testing protocols. Testing prior to rehabilitation work is not recommended because it will not provide an accurate representation of the conditions post-renovation due to increased efficiency in the building envelope and systems (i.e., increasing insulation levels, reducing air infiltration, replacing windows, changes to the HVAC system, etc.).

Passive radon-reduction systems shall be activated should tests confirm the presence of radon gas in the building exceeding the EPA defined action level of 4pCi/L. If the test results indicate radon concentrations between 2pCi/L. and 4pCi/L., consider activation of the system based on EPA recommendations.

2. All work including rehabilitation, renovation, repair, etc. at buildings constructed prior to 1978 (or earlier if other regulations apply) shall address lead-based paint in accordance with these guidelines, unless more restrictive regulations apply. Projects shall comply with HUD rules and guidance for testing and abatement of lead-based paint. Refer to Guidelines for the Evaluation and Control of Lead-Based-

Paint Hazards in Housing (Second Edition, July 2012, HUD Lead Safe Housing Rule 24 CFR Part 35) and the EPA Renovation, Repair and Painting Rule (40 CFR Part 745).

3. Existing domestic water supply and distribution systems that are to remain must be tested for lead content in accordance with applicable drinking water regulations and guidelines or per HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (where municipal regulations do not exist). Where results for lead content meet or exceed the applicable action levels, domestic water supply piping and fixtures shall be removed and replaced with lead-free plumbing. The sponsor must also contact the local public water provider and request recent water quality reports to determine if the source of lead or corrosive water may be the municipal water supply
4. Where pervasive mold conditions are identified prior to, or during the rehabilitation of any project, such conditions shall be remediated in accordance with applicable protocols established by the New York State Department of Labor Mold Program.

Accessibility & Visitability

Accessibility: Projects shall meet all applicable accessibility requirements. Depending on the size, type and funding sources included in a project, differing federal, state and local accessibility requirements may apply. These laws and regulations include, but may not be limited to, Section 504 of the Rehabilitation Act of 1973, the Fair Housing Act, Chapter 11 of the New York State Uniform Fire Prevention and Building Code (NYSBC), Chapter 11 of the New York City Building Code (NYCBC), and Americans with Disabilities Act (ADA).

Visitability: All Multifamily projects shall meet the HCR Visitability Criteria outlined below. All other developments including, but not limited to, triplex, duplex, townhouses, and single-family dwelling should meet the HCR Visitability criteria where feasible given the site and design constraints of the development.

HCR Visitability Criteria: All dwelling units connected to an elevator and all first-floor dwelling units in newly constructed buildings without elevator service shall include the criteria listed below. Buildings undergoing adaptive reuse or rehabilitation shall comply to the maximum extent feasible with each of the measures below:

- an Accessible Route circulation path to the unit without relying on ramps, unless unavoidable due to existing conditions that are impractical to change.
- at least one 36-inch wide unit entrance or a unit entrance meeting Building Code Type B unit entrance criteria.
- at least one 36-inch wide interior circulation path, or an accessible route meeting the criteria of ICC A117.1-2009, to all habitable rooms, kitchens and bathrooms on the grade-level floor.
- at least one half-bath that contains at least a clear floor space of 48-inches minimum long and 30-inches minimum wide positioned outside the door swing and blocking for at least two safety grab bars.

Site Standards

The following criteria shall be included where applicable or specifically stated as required. These standards are intended to enhance neighborhoods and community pride, contribute to economically efficient development and operations of sites, provide improved quality of life, and provide for the safety of the owners.



Criteria Applicable to All Developments:

1. Site development should be compatible with the project surroundings, e.g.:
 - Neighborhood scale should be maintained.
 - New and existing setbacks should be compatible.
 - Building heights and bulk, as seen from the street, should be respected.
 - Building materials should be compatible with the neighborhood context.
2. Public ways and exterior spaces should be visible from dwelling units and interior common spaces, e.g.:
 - Avoid recessed or hidden spaces.
 - Doors and stairways should exit into well-lit areas that are visible to the public and nearby dwellings.
 - In projects with individual dwelling unit entrances, parking areas should be close in proximity to dwellings to allow supervision of personal vehicles.
3. Building entrances should be sheltered from sun, wind, and precipitation.
4. Exterior lighting shall be LED and Energy Star Certified or provide the equivalent in energy savings and quality.
5. Provide screening for all new and existing exterior mechanical equipment, meters, dumpsters, etc., where applicable.
6. Existing trees should be maintained, where possible.
7. All new plantings shall comply with New York State Departments of Environmental Conservation and Agriculture and Markets regulations concerning invasive species.
8. New plantings should be selected to minimize water usage. Consider xeriscaping or naturally occurring landscaping plants and materials.
9. Provide lawns with at least 3" of well-screened topsoil.
10. All new walkways, driveways and parking areas should be passable in poor weather, i.e., capable of being easily cleared of snow, sheltered from sweeping winds, and well-drained to prevent flooding and icing. Exterior ramps and stairs, along with their respective approaches, must be designed to prevent water and snow accumulation.
11. Paved areas should be high quality, durable, easily maintained, stable, and have a non-slip texture.
12. New asphalt paving for parking and drive surfaces shall be compacted 2-inch base course and 1½" top course over a 6" aggregate base. Provide positive drainage of all driveways, parking areas, ramps, and walkways to prevent standing water.
13. New handrails and railings shall be constructed of durable, weather-resistant materials that will not warp, crack, chip or peel under normal use. Avoid pressure-treated lumber as it has a tendency to warp and may not hold paint over time.
14. Projects with individual driveways for dwelling units shall provide a dedicated branch circuit that is not less than 40-ampere and 208/240-volt assigned for electric vehicle supply equipment terminating in a receptacle located adjacent to the driveway for EV charging capabilities.



Additional Criteria Applicable to Multi-family Developments Only:

1. In multi-family developments, Accessible Routes shall connect all common facilities, outdoor amenities and the dwelling units.
2. Stormwater management areas shall be fenced or provided with other recognized design measures, such as aquatic benches designed to NYS DEC standards, to ensure safety for children and other residents of the project or the surrounding neighborhood.
3. All walkways shall be concrete. All new concrete exposed to weather must have a minimum ultimate design strength of 4,000 psi and contain an air entrainment admixture.
4. Exterior lighting shall be DarkSky approved or meet the intent of the DarkSky label, meaning installing fixtures that:
 - are fully shielded to restrict upward light and
 - emit no light above the horizontal plane and
 - are warm toned (max 3000K) white light or amber light sources or filtered LED light sources.
5. All exterior lighting shall have either motion sensor controls, photosensors, or astronomic time-clock operation to limit lighting when there is adequate daylight.
6. Provide at least one Level 2 electric vehicle (EV) charging station for every twenty parking spaces provided in a multifamily project. EV charging stations shall be equitably distributed throughout the project to allow residents equal convenience in accessing the EV charging stations.
 - Projects shall not be required to provide more than five EV charging stations in total.
 - Projects that do not provide parking in a lot or garage are exempt from this requirement.
7. Conduct a resiliency study in the form of a report and supporting narrative describing the following, as applicable:
 - Applicable hazards to the project as identified on FEMA’s National Risk Index map (<https://hazards.fema.gov/nri/map>).
 - Steps the project will take to mitigate the identified risks.

Building Standards

The following criteria shall be included where applicable or specifically stated as required. Building envelope criteria include considerations for the durability and longevity of the exterior enclosure systems in addition to energy efficiency measures. The criteria are intended to promote building designs that are aesthetically and architecturally compatible with the context of the area. This section also focuses on creating a durable and energy-efficient building core, including the building structure, utilities and interior finishes.



Criteria Applicable to All Developments _ Building Envelope and Structure:

1. The building design, material selections and detailing must consider the following:
 - Compatibility to enhance the neighborhood context and natural environment.
 - Durability of material systems to minimize routine maintenance.

2. New exterior window units are to be tested and labeled as complying with AAMA/WDMA/CSA 101/I.S.2/A440-11 (North American Fenestration Standard/Specification for windows, doors, and skylights) or AAMA/NWWDA 101/I.S.2-97 (Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors).
3. All new windows must have a locking device that is tamperproof from the exterior.
4. All operable windows shall be provided with mesh screens covering the full open area.
5. Noise mitigation measures shall be provided when outside ambient noise levels are higher than 65 decibels.
6. Exterior building materials, shall comply with the following, as applicable:
 - Vinyl siding: Solid vinyl siding manufactured without fillers with a minimum thickness of .044 inch.
 - Wood clapboard siding: Free and clear of knots, checks, and other defects.
 - Fiber cement board siding: Field painted or prefinished and carrying a minimum manufacturer's finish warranty of 15-years.
 - Modular brick, thin brick and stone veneer: Select for aesthetic appeal and with grades that ensure durability and longevity. Design and installation shall comply with industry best practices for prevention of water infiltration and to maintain structural stability. Facades utilizing these materials should be designed in a way that conveys realistic masonry walls, rather than a thin veneer application.
 - Considerations for the selection of exterior materials other than those listed above shall be evaluated for aesthetics, durability, longevity, warranty, maintenance, and energy efficiency. Design and installation shall comply with industry best practices for prevention of water infiltration and maintaining structural stability.
7. New roofing systems are required on all rehabilitation projects, with the exception of existing roofs in good condition with no history of leaks that will carry a 15-year or longer warranty at the time of substantial completion for the funded project or building.
8. Shingle roofing shall carry a minimum manufacturer's warranty of 30-years and a 2-year roofing contractor's labor warranty for all roofing and sheet-metal work.
9. Low slope roofs shall use industry-standard roof membranes from a reliable manufacturer that carry a minimum of a 20-year, full system manufacturer's warranty for labor and materials with no dollar limit. In addition, the roofing contractor is to provide a minimum 2-year labor warranty for all roofing and sheet-metal work.
10. Metal roofing shall carry a minimum 30-year finish warranty, a minimum 20-year material warranty, and a 2-year roofing contractor's labor warranty for all work. The finish warranty shall state, at a minimum, that the finish will not fade, chalk, crack, check, or peel. The material warranty shall state, at a minimum, that the material will not rupture, fail structurally or perforate under normal atmospheric conditions.
11. All projects are to incorporate integrated pest management during construction that includes sealing all openings, cracks and joints to prevent the infestation of insect and animal pests from entering the home.
12. All wood exposed to the weather and wood blocking used in roofing must be pressure treated, or other suitable rot-resistant species or material.
13. Pressure treated wood for areas such as balcony decking and railings are discouraged from use due to the tendency of the wood to warp, split and chip.
14. Exterior dwelling unit entry doors shall include a Grade 2 lockset and one-inch throw deadbolt.
15. Provide a security peephole on all exterior dwelling unit entry doors.



Additional Criteria Applicable to Multi-family Developments Only_ Building Envelope and Structure:

1. Exterior masonry materials, when utilized, shall comply with the following:
 - Masonry (brick, stone, concrete block): Select for aesthetic appeal and with grades that ensure durability and longevity. Brick and concrete block shall be full dimension modular units with a minimum of four inches nominal thickness. Design and installation shall comply with industry best practices for prevention of water infiltration and to maintain structural stability.
 - Manufactured stone veneer shall be two inches or greater in thickness, set in mortar beds and carry a 50-year product warranty. The use of manufactured stone veneer is limited to building accents and as a base condition at grade.
 - Thin brick veneer systems shall not be used on exterior surfaces.
2. Exterior insulation finish systems (EIFS), when utilized, shall be selected for aesthetic appeal and advanced thermal envelope performance for energy efficiency considerations. Aesthetics should provide a variety of surfaces and geometries, avoiding large, flat, non-articulated areas. Provide special, manufacturer approved detailing to ensure durability and to prevent water infiltration, especially at horizontal projections and other areas with increased susceptibility to water infiltration. EIFS shall not be used at grade level stories. All system components shall carry a min. 10-year manufacturer's warranty.
3. Roof and floor sheathing shall have an exposure 1 classification constructed of structural veneer plywood or non-plywood, high-performance structural panels. Where roof structural members are spaced a maximum of 24 inches on center, roof sheathing shall have a minimum nominal thickness of 5/8 inch to minimize deflection between structural members. H-clips must be used for square edge profiles with unsupported edges. Floor sheathing must be tongue and groove panels with a minimum nominal thickness of 3/4 inch. Non-plywood, high-performance structural roof or floor sheathing panels shall comply with the following:
 - Carry a limited lifetime warranty.
 - Include a 500-day no-sanding guarantee that covers delamination and excessive swelling.
 - Maintain moisture resistance throughout each panel and at all edges when cut into smaller panels.Non-plywood, high-performance structural roof sheathing panels with an integrated moisture barrier are acceptable if provided with a manufacturer's 30-year system warranty.
4. Exterior building entry doors shall be Grade 1 mortise locksets with a one-inch throw deadbolt, or heavy-duty/grade 1 electronic hardware.



Criteria Applicable to All Developments _ Building Systems:

Heating/Cooling

1. All HVAC equipment in new homes must be all high-efficiency, all-electric, and carry an ENERGY STAR certification or provide the equivalent in energy savings, quality, and operational costs. Equipment shall be either ground source heat pumps OR cold climate air source heat pumps, such as mini splits, multi-splits, VRF, and PTHPs that are either:
 - a. Listed on the [Northeast Energy Efficiency Partnership \(NEEP\) cold climate air source heat pump product](#) list OR

- b. Meet NEEP's Cold Climate Air Source Heat Pump Specification (version 4.0 effective January 1, 2023).
2. All forced air, heating and cooling system ductwork shall run within the building thermal envelope. For example, ducts shall not run within exterior walls, unheated attics, above the thermal/insulation, or in unconditioned crawl spaces.
3. Include wall-mounted programmable thermostat(s) in each dwelling unit capable of maintaining different temperature set points at different times of the day.

Ventilation

4. Provide mechanical ventilation for all bathrooms and kitchens. Vent each to the exterior or capture to an ERV/HRV system. Filtered range hoods are permitted in kitchens served by a central exhaust system.
5. Consider providing mechanical ventilation using Energy Recovery Ventilation (ERV) or Heat Recovery Ventilation (HRV) in dwelling units to increase indoor air quality. In-unit ERVs must include properly located access panels to clean louvers/grilles.

Service Water

6. All projects must utilize high-efficiency electric domestic hot water systems such as cold climate air-to-water heat pumps, as certified/specified by NEEP, or integrated heat pump water heaters. Electric resistance water heaters are permitted in units. Electric resistance water heaters with storage must be insulated per NYS Energy Conservation Code Requirements.
7. Provide floor drains or drain pans at all hot water tanks, washing machines, etc.
8. All water supply piping shall be Type K soft temper copper for below grade building lines, Type L hard temper copper for interior domestic water lines, Type M for hydronic heating lines, or cross-linked polyethylene (PEX) piping. Copper piping must be installed with soldered joints using lead-free solder or with mechanical press connections. PEX piping shall be installed to limit the number of connections to the greatest extent possible. Connections to water heating equipment, pumps, etc. for domestic hot water heating shall be with copper piping.
9. All sprinkler piping shall run in concealed spaces. At top floors, piping shall be protected from freezing by utilizing side wall sprinkler heads at interior partitions or by running piping in dropped soffits that are completely enclosed on all four sides below the thermal envelope.

Other Systems

10. Provide a minimum of one hard-wired cable TV outlet in the living area. Cables are to be concealed within walls, ceilings, floors, chases, etc.
11. Provide a minimum of one hard-wired internet outlet in the living room. Cables are to be prewired and concealed within walls, ceilings, floors, chases, etc.
12. Provide a doorbell system for all exterior dwelling unit main entry doors.
13. Projects located in NYC are required to evaluate the project for solar feasibility. The solar feasibility study should include proposals for potential locations such as rooftops and other locations throughout the site, identification of preliminary solar components, and basic electricity production estimates. The study should also include a cost benefit analysis, including the estimated payback period for the solar installation.
14. If solar photovoltaic systems (PV) are not included in the project, consider incorporating a solar ready design to allow for future installation of solar PV. Design considerations should include:
 - Panel Location and Orientation:

- Space reserved on site or on building roof that is free of shade, including trees, buildings and parapets/penthouses.
- Potential for south-facing exposure for solar PV panel array.
- Solar Ready Zones:
 - Solar-ready zones shall be designated on the roofs and comply with the provisions outlined in Section CA103.2-CA103.8 or Section RA103.2-RA103.8 of the 2020 Energy Conservation Construction Code of New York State, as applicable per project type.
 - Roofing warranty shall allow for future installation of solar PV panels without voiding warranty.



Additional Criteria Applicable to Multi-family Developments Only_ Building Systems:

Heating/Cooling

1. All apartments shall be treated as individual heating zones controlled by a wall-mounted programmable thermostat in each apartment capable of maintaining different temperature set points at different times of the day and with setback capabilities.
2. In common areas, remote wall thermostats accessible to the public should be in a locked enclosure and controlled by the building operations team.

Ventilation

3. Meet the ventilation criteria required by the third-party certification program selected AND provide Energy Recovery Ventilation (ERV) or Heat Recovery Ventilation (HRV) for public spaces, such as community rooms, corridors, etc. per 2020 NY State ECC requirements.

Service Water

4. Multifamily projects may include sub-central tanked electric resistance water heaters that provide hot water to a distribution loop serving a single zone or a single flood, whichever is smaller in terms of linear feet of piping. These units must be insulated per NYS Energy Conservation Code Requirements.

Other Systems

5. Provide an intercom system for multiple dwelling projects where dwelling unit entry doors are not accessible directly to the exterior.
6. Hard-wired internet in each dwelling unit shall allow for:
 - Individual secured accounts for access in each dwelling unit.
 - Minimum of 100 megabits per second wired download speed per dwelling unit.
 - Flexibility for each tenant to enhance their service at their own cost.



Criteria Applicable to All Developments _ Interior Environment:

1. Dwelling units shall comply with the dwelling unit area ranges listed below:

Dwelling Unit Type	Minimum Area*	Maximum Area
0 bedroom/Studio	400 sq. ft.	600 sq. ft.
1-bedroom	600 sq. ft.	800 sq. ft.

2-bedroom	750 sq. ft.	1,100 sq. ft.
3-bedroom	900 sq. ft.	1,550 sq. ft.
4-bedroom	1,050 sq. ft.	1,950 sq. ft.
5-bedroom	1,200 sq. ft.	2,400 sq. ft.

*Projects in New York City with HPD involvement may utilize HPD criteria for dwelling unit size.

The area of the dwelling unit is defined as the square footage measured from the interior finish surface of the exterior wall to the centerline of common wall(s) separating adjacent common space or other dwelling unit(s). Dwelling unit sizes may exceed the maximums indicated in the table under these conditions:

- By 50 square feet in multi-level, dwelling units to accommodate the additional half bath when meeting Visitability criteria.
 - Dwelling units located on more than one level; up to 60 square feet per floor to account or stairs.
 - Maximum and minimum area shall exclude unfinished basements/cellars and garages.
2. All habitable rooms shall have natural light equal to or greater than 8% of the floor area and natural ventilation equal to or greater than 4% of the floor area.
 3. Provide wall sconces or ceiling fixtures controlled by a wall switch in all rooms and corridors of dwelling units, including walk-in closets and storage rooms.
 4. All interior lighting shall be LED and Energy Star Certified or provide the equivalent in energy savings and quality.
 5. Gypsum board walls shall be equivalent to a smooth level four finish in compliance with Gypsum Association standards.
 6. Provide one coat of primer and one coat of paint to all interior walls and ceilings except in the bathroom, kitchen, shared common space walls, and all trim where one coat of primer and two coats of semi-gloss or eggshell paint must be provided.
 7. Dwelling unit ceiling finishes must be smooth finished, rolled, sprayed, or uniformly textured painted gypsum board. Suspended ceiling tiles are not acceptable.
 8. Provide a finished base at all exposed walls and cabinetry, toe kicks, and exposed side panels. Painted wood baseboards or equivalent shall be utilized.
 9. Provide moisture-resistant gypsum wallboard on all walls of bathrooms with bathtubs or showers.
 10. Interior finishes shall meet the following low VOC criteria:
 - All interior paints, coatings and primers shall have a VOC content less than or equal to the thresholds provided by the most recent version of SCAQMD 1113 available at time of product specification. VOC emissions shall be verified as compliant with CDPH Standard Method for all wall finish paints. All wallpaper shall be phthalate free.
 - All interior adhesives and sealants shall have a VOC content less than or equal to the thresholds provided by the most recent version of SCAQMD 1168, available at time of product specification, for all interior adhesives and sealants.
 - All flooring products must comply with CDPH emission requirements, including carpeting and hard surfaces. Flexible PVC with phthalates is prohibited, regardless of whether the phthalates were intentionally added or added via recycled content.
 - Fiberglass or mineral wool batt insulation must be formaldehyde-free.
 - Spray foam insulation shall be applied by applicators certified by the manufacturer, the American Chemistry Council, or other recognized industry standards. The application of spray foam shall be in

accordance with such certification to limit harmful off-gassing after the curing period. Scheduling of spray foam applications shall be done in a manner that allows sufficient ventilation to occur to dissipate any residual off-gassing prior to the spray foam insulation becoming enclosed by other materials.

- Composite Wood in products such as cabinets and doors shall have formaldehyde emissions less than or equal to the thresholds provided by CARB Phase 2 and/or TSCA Title IV for plywood, particleboard and MDF. For any other composite wood products not covered by CARB/TSCA requirements, but used in interior spaces, these must at minimum be NAUF (have no added urea formaldehyde).
11. Kitchens shall be sized to accommodate the maximum number of residents who may reside in the dwelling unit. Kitchens shall, at a minimum, be equipped with base and wall cabinets, a 30-inch wide range, lighted range hood, vented exhaust fan, refrigerator and a minimum 24-inch wide by 9” deep kitchen sink.
 - Ranges and cooktops should not be placed against side walls.
 - In zero, one, and two-bedroom homes, provide a 14-cubic foot, two-door, frost-free refrigerator with freezer compartment. In three bedrooms or larger homes, provide an 18-cubic foot, two-door, frost free refrigerator with freezer compartment.
 - In three bedrooms or larger homes, include a minimum 30-inch wide kitchen sink.
 - Exceptions to the required depth for kitchen sinks are permitted when meeting required accessibility clearances.
 - Full height pantries are recommended.
 12. All refrigerators, dishwashers, and clothes washers included in the project or supplied by vendors must meet or exceed Energy Star or CEE Tier 1 certification where available.
 13. All ranges, cooktops, ovens and clothes dryers included in the project or supplied by vendors shall be all-electric.
 14. Provide the following storage areas based on the dwelling unit type:

Dwelling Unit Type	Entry Closet	Linen Closet	Bulk Storage Closet
0 bedroom/Studio	2ft. deep x 3ft. wide	18in. deep x 2ft. wide	10 sq. ft.
1-bedroom/2-bedroom	2ft. deep x 4ft. wide	18in. deep x 2ft. wide	20 sq. ft.
3-bedroom+	2ft. deep x 6ft. wide	18in. deep x 3ft. wide	25 sq. ft.

Bulk storage areas located within the dwelling units may be combined with other closets or auxiliary spaces (excluding mechanical rooms) as long as a distinct area with accessible access is provided for both the bulk storage and other associated use. Bulk storage located in basements or other areas subjected to high ambient moisture or humidity shall be waterproofed, ventilated, and dehumidified to prevent damage to stored items.

15. All bedrooms shall be a minimum of 100 square feet of usable area with preference of 10 feet by 10 feet. Exceptions shall be permitted for projects located in NYC where the secondary bedrooms shall be a minimum of 80 square feet with the smallest dimension being 8 feet in width.
16. All bedrooms and bathrooms shall have a minimum 2’-6” door with a privacy lockset.
17. Every bedroom shall have a 2-foot deep by 4-foot or wider closet with a shelf, closet rod, and a door. Doors may be omitted at bedroom closets with the installation of a finished closet system with solid shelving and/or drawers.
18. Walk-in storage closets should be provided with a light and wall switch.

19. All full bathrooms shall contain a vanity sink with a minimum 30" wide countertop and base cabinet, a toilet, and bathroom hardware including, a shower curtain rod permanently anchored to the wall, toilet paper holder, a hand towel hook/bar, and 2 towel hooks or a towel bar.
20. At least one bathroom shall contain a nominal 30"x60" bathtub unit with a showerhead.
21. All fixtures listed below must meet the following requirements:
 - Toilets – WaterSense or equal, 1.28 GPF max, or dual flush (1.28 GPF max, 0.8 GPF min)
 - Showerheads – WaterSense or equal, 1.75 GPM max
 - Kitchen Faucets – 1.5 GPM max, or dual flow (2.2 GPM max, 1.0 GPM min)
 - Bathroom lavatory faucets and all other fixtures in dwelling units – WaterSense or equal, 1.0 GPM max
22. Windows shall not be located within the tub/shower surround.
23. Kitchen and bathroom cabinets shall ANSI A161.1 certified by KCMA, ICC-ES or other reputable testing Agency accepted by HCR. Additionally, all cabinet doors, drawer panels, and face frames shall be of natural wood or with a high-pressure decorative laminate (HPDL) finish constructed of combination core plywood (MDF and veneer plywood core only).
24. Provide a room or closet with washer and dryer hook-ups in all dwelling units.



Additional Criteria Applicable to Multi-family Developments Only_ Interior Environment:

1. Interior shared residential common space must be no more than 25% of the total residential space.
2. The following common amenity spaces are highly recommended on all multifamily projects:
 - A common laundry room with at least one washer and one dryer provided for every twenty dwelling units.
 - A community room for resident events designed to accommodate flexible multi-purpose uses while providing an intimate atmosphere for socialization. (Recommended 15sf per dwelling unit)
 - Indoor bicycle storage that is easily accessible from the outdoors to minimize the movement of bicycles through the building's lobby and elevators.
 - Fitness rooms
 - Co-working rooms, and/or computer rooms that are design to accommodate diverse occupant groups.
3. Corridors should be a minimum of five feet in width at all points.
4. Stairways located near the building's entrance are recommended to encourage stair usage. Integrate the stairs into principal areas and travel paths. Stairs should be accessible, visible, attractive, and well-lit.
5. Provide safe and secure interior public circulation, including areas such as elevators and stairwells.
6. Public corridors and stairways shall have vinyl composition flooring, luxury vinyl tile/plank, other heavy-duty hard-surface flooring, or heavy-duty commercial grade carpet tile. Selection of materials and patterns shall consider aesthetic appeal appropriate for residential occupancy.
7. Interior dwelling unit entry doors shall include a Grade 2 lockset and one-inch throw deadbolt.
8. Provide a security peephole on all interior dwelling unit entry doors.
9. The following acceptable floor finishes should be selected to enhance the residential appearance of the dwelling unit and not result in an institutional overtone in the space:

- A minimum of 26 oz., level-loop, commercial grade carpet or a minimum 26 oz. residential cut-loop carpet
 - Resilient vinyl flooring with a minimum thickness of 0.080"
 - Luxury vinyl tile/plank with a wear layer of at least 12mil
 - Water resistant laminate flooring
 - 5/8" solid bamboo flooring
 - 3/4" tongue and groove hardwood flooring
10. Provide waterproof assemblies for floor systems in laundry rooms, bathrooms, or similar spaces prone to water damage. Extend waterproofing four inches or more above the floor. Waterproofing may be accomplished with the finish flooring by utilizing sheet vinyl flooring and a fully caulked vinyl base to ensure a watertight installation, or ceramic tile with an integral 4" base.
 11. Where common computer labs or co-working spaces are not available in the building, consider including a minimum 36-inch wide built-in workstation located in or adjacent to the main living space that includes a built-in desktop surface, a hard-wired internet outlet and an electrical outlet adjacent to the desktop.
 12. Interior common area lighting shall be controlled by occupancy sensors or automatic bi-level lighting controls. Exemptions are permitted in areas where 24-hour consistent light levels are required by code and in mechanical and utility rooms.

Third-party Energy Efficiency Standards

Projects must select one of the following third-party certification programs to certify the project. Projects must submit the following for proof of third-party certification to HCR Sustainability Unit:

- pre-certification documentation prior to construction start AND
- proof of third-party certification after construction completion.



Allowable Third-Party Programs for All Developments:

1. 2020 Enterprise Green Communities Certification or 2020 Enterprise Green Communities Certification Plus
 - Projects in NYC should utilize the NYC overlay
2. LEED Residential for Single Family or Multifamily – Silver or higher
 - LEED v4
 - LEED v4 with LEED v4.1 credit substitutions
 - LEED v4.1
3. Passive House PHI/PHIUS or equal
4. Energy Star Multifamily New Construction Program
5. ICC/ASHRAE 700 – 2020 National Green Building Standard Silver or higher



Allowable Third-Party Programs for Single Family and Townhouse Developments Only:

1. Energy Star Single-Family New Homes
2. DOE Zero Energy Ready Home

END OF DOCUMENT