APPENDIX D

Supportive Housing Development
Design Standards

Contents

Incorporating Energy Efficiency Standards (New Construction, Adaptive Reuse, and Substantial Rehabilitation)

At a minimum, SHDP projects should comply with Advanced Energy Corporation's SystemVision™ Standards for Supportive Housing or to the standards of an Agency-approved energy-related building certification program, as described in Appendix F.

Substantial Rehabilitation and Adaptive Reuse projects must comply to the extent that doing so is economically feasible and the scope of work allows. For instance, if rehab makes areas accessible during the project, those areas should be addressed to the extent feasible. However, areas that will remain inaccessible are not required to be "opened up" to address energy efficiency.

Meeting Diverse Design Standards

Please review the SHDP Design Standards carefully with your architect, landscape architect, energy consultant, or other project consultants prior to the development of construction drawings or a Detailed Work Write-Up (for rehabilitation projects). In the case of a disagreement between the SHDP Design Standards and NC Building Code, current applicable NC Building Code must be followed.

Any request for waivers to the SHDP Design Standards should be presented to NCHFA for consideration, in advance whenever possible. Generally waivers are considered for the basis of excessive costs, conflicts with local code or licensing requirements, or adjustments that may improve the usability, function, accessibility, durability, or long-term financial sustainability for operations of the project. It is expected that errors in construction are corrected and waivers are not considered for correctable mistakes/omissions.

All construction **must meet** applicable federal, state, and local building codes. Manufacturer's instructions must be fully followed for all installations in new construction and rehabilitation. If pursued, energy/green building certification standards must also be considered and included.

Some projects, based on target population, other sources of funding, or licensure, may have additional requirements not listed herein that may exceed or amend the requirements of SHDP. It will be up to the project developer to determine these additional requirements. In evaluating design, special consideration must be given to the mission of the project, requirements of all funding, the target population, and design requirements to attain and maintain licensure, if applicable.

Review of Blueprints

At time of application a set of blueprints for the site and building must be submitted electronically for the preliminary review. These can be preliminary/draft or final plans. NCHFA's Construction Analyst will conduct a review and provide feedback for the project. The review will be done based on the level of the plans. Once plans are approved as an eligible project, any future iterations of the plans must be provided to NCHFA for approval and adherence to the Design Standards.

After award and before the SHDP loan final commitment letter is issued, a complete set of final construction drawings and material specifications must be submitted electronically to NCHFA. Throughout the project, when significant revisions or final plans are ready, please email NCHFA at

SHDevelopment@nchfa.com and request a file share link be sent to you. This will allow the upload of documents larger than typical email attachments allow.

Final plans should include the layout of the site, including all buildings, amenities, parking, and walkways. An accessible route plan is helpful if available. Architectural plans should denote applicable accessibility details. A detail page with accessible details (such as shower/tub controls, grab bars, kitchens, bathrooms, water fountains, ramps, panel box height, outlet/switch height, etc.) is highly recommended for contractors to better ensure accessibility details are not missed. The building occupancy designation (e.g. R-1, I-2 etc.) and the heated square footage of each unit or building must be shown on the blueprints. The prints must be scalable.

The NCHFA SHDP Design Standards from the year of project award will be used in each review process.

At Application an electronic submission is required. If awarded, a full set of blueprints must be submitted before Final Commitment Letter. Electronic blueprints are preferred for the final set.

Construction Standards for New Construction, Adaptive Reuse, and Substantial Rehabilitation

1. Exterior Design and Materials

a. It is highly recommended that building design use different roof planes and contours to break up roof lines. Wide window and door trim are recommended to improve the visual appeal of accent siding. If horizontal banding is used between floor levels, the use of separate color tones for upper and lower levels is recommended. It is recommended that horizontal and vertical siding applications be added to detail dormers, gables, and extended front façade areas.

b. The use of no or very low maintenance materials is required for exterior building coverings on all new construction projects. Fiber cement board or brick is preferred as exterior material; all exterior materials must be durable and low or no maintenance, including materials in breezeways, stairwells, exterior trim, gable vents, etc. All exterior trim, including fascia and soffits, window and door trim, gable vents, etc. must also be constructed of no or very low maintenance materials.

c. If vinyl siding is used, it must be at least .044 inch thick.

d. If a non-vinyl band board attaches to and is part of the vinyl siding application, z-flashing must be installed behind, on top of, and below bands.

e. In vinyl siding applications, all exterior lights, electrical outlets, HVAC sub panels, hose bibs, telephone boxes, and cable boxes must be installed in plastic J-boxes or a vinyl component designed for the purpose.

f. All exterior trim, including fascia and soffits, window and door trim, gable vents, etc. must also be constructed of no or very low maintenance materials.

g. Where the eave overhang is less than 18”, the buildings must include seamless gutters. All water from roof and gutter system must be piped away from buildings and discharged no less than 6’ from building foundation. A drip edge must be installed on all eaves and gable ends. Drip edge must extend 2” minimum under shingles.

h. All buildings must have a minimum of 12” exposed brick veneer or other exposed masonry above finished grade level (after landscaping).

i. Breezeway and stairwell ceilings must be constructed of materials rated for exterior exposure. Stairs in breezeways and building stairwells (not to include unit interiors) must have a minimum clear width of 40” between handrails and be completely under roof cover. Handrails must be 1 ¼ to 1 ½ inches in diameter. A minimum 48” path of travel is required through building breezeways for properties.

j. Exterior stairs must have a minimum clear width of 48” and be completely under roof cover.

k. Exterior railings must be made of vinyl, aluminum, or steel (no wood).

l. Shingles, if used, should be algae resistant (AR) with a minimum 30-year warranty.

m. Every primary exterior entry door shall be protected by a roof of not less than 5' wide by 3' deep. All primary exterior entries should be well lit.

n. Exterior hallways, corridors or breezeways and interior hallways and corridors may not have a slope greater than 2% in any direction.

o. For newly constructed units, “flat” or built-up roofs are not permitted.

p. Building addresses and unit numbers must be identified using clearly visible numbers. Building and unit identification signage must be well lit from dusk till dawn. Building and unit identification signage must be meet ANSI A117.1 (Section 703).

q. No contractor-grade, builder-grade, or apartment-grade paints or finishes allowed.

2. Doors and Windows

a. High durability, insulated doors (such as steel and fiberglass) are required at all exterior locations.

b. Single lever deadbolts and eye viewers are required on all main entry doors to residential units. Accessible units should have eye viewer installed between 43” and 51” AFF.

c. For new construction, interior doors must be constructed of two, four or six panel hardboard, solid core birch or solid core lauan. Hollow core, flat-panel doors are prohibited.

d. Interior doors must have a minimum of three (3) hinges.

e. Bi-fold, louvered, and by-pass doors are prohibited. Pocket doors are discouraged, but if installed, they must have loop or D style handles. For accessible units they must have the proper clearances.

f. Exterior doors for Fully Accessible/Type A units must include spring hinges or assisted door closers.

g. There must be a minimum of ¾ inch air space under all interior doors measured from finished floor for air circulation.

h. Insulated, double pane, vinyl windows with a U-factor of 0.35 or below and a SHGC of 0.30 or below are required for new construction.

i. Windows must not be located over tub or shower units, with the exception of glass

blocks and transom windows.

j. A continuous bead of silicone caulk must be installed behind all nail fins before installing new vinyl windows per manufacturer's specifications.

3. Sitework and Landscaping

a. Provide positive drainage at all driveways, parking areas, ramps, walkways, and dumpster pads to prevent standing water.

b. Exterior walkways and clearances shall be a minimum of 48".

c. No sidewalks may exceed a 2% cross slope regardless of where located. Provide a non-skid finish to all walkways.

d. Entire lot must be graded so as to drain surface water away from foundation walls. Within the first 10', the grade away from foundation walls must drop a minimum of 6".

e. No part of the disturbed site may be left uncovered or unstabilized once construction is complete.

f. Innermost edge of accessible path sidewalks must be at least 6'6" away from edge of curbing

g. Signs identifying accessible parking spaces shall designate the type of space with a minimum 80" distance between the bottom of the sign and the ground. At least one in six accessible spaces must be an accessible van space with signage designating the van space per IBC Section 1106.

h. At least one accessible parking space for every type A unit must be provided with a minimum 8' wide space with a marked 5' transfer path for accessible spaces and 11' wide space for accessible van spaces. Otherwise, Section 208.2 of ADA 2010 and IBC 2021 section 1106 should be followed in determining the minimum number of accessible parking spaces needed if they exceed the per unit requirement.

i. Total Parking Spot Minimums (round up for partial spots):

    i. ¼ spot for each shelter bed for emergency housing + 1 spot for each FT staff/volunteer (additional capacity should be added for drive up services/classes/food programs)

    ii. ¼ spot for children's housing for each client > age 16 + 1 spot for each FT staff/volunteer

    iii. 1 spot for each adult bed for transitional/temporary housing + 1 spot for each FT staff/volunteer

    iv. 1 spot for each single occupancy permanent supportive unit + 1 spot for each FT staff/volunteer

    v. 1.75 spots for each multiple occupancy permanent supportive/Olmsted family apartment unit + 1 spot for each FT staff/volunteer

    vi. If a project requests consideration for a lower minimum number of parking spots, projects must submit and receive approval of their parking and transportation plan to NCHFA. Typically, this is due to the project providing transportation for residents who do not drive. Projects that house tenants who must transport themselves to employment and for daily living needs must have a robust plan exceeding reasonable demand for transportation of tenants.

vii. All projects with staff on site must have adequate parking for all staff in addition to resident parking. Part-time staff/volunteers must be considered to determine how many parking spots they will also need (i.e. 2 half time volunteers = 1 spot).

viii. Resident parking requirements may be reduced if full-time transportation services are provided with approval by NCHFA. Public transportation or ride shares may not take the place of minimum parking spaces.

j. Handicap ramps may not protrude into parking lot. Handicap parking spaces and access aisles may not exceed 2% slope in any direction. Access aisles cannot be installed through vehicular paths of travel.

k. All ramp slopes must meet the requirements of ANSI A117.1 (Section 405) and the current ADA design standard. Ensure all contractors are aware of slope requirements before pouring concrete or laying asphalt.

l. 1:50 = Max of 2% for accessible parking, cross slopes, landings, clear space in front of mailboxes, entries, and trash facilities

m. 1:20 = Max of 5% for sidewalks and walkways (cross slope must be 2% or less)

n. 1:12 = Max of 8% for ramps and curb cuts

o. All new construction projects, and if feasible, substantial rehabilitation and adaptive reuse, with more than 16 units must also include an on-site office or a room where property management staff can meet with tenants or applicants and maintain property documentation and records.

4. Interior Design and Materials

a. All residential units should meet minimum unit size requirements. The square footage measurements below will be for heated square feet only, measured interior wall to interior wall, and do not include exterior wall square footage. Unheated areas such as patios, decks, porches, stoops, or storage rooms cannot be included.

- Single Room Occupancy (SRO): private kitchen or private bathroom — 250 square feet
- Studio: kitchen in primary living space or kitchenette but includes a public kitchen option or food provided by project — 325 square feet
- Efficiency/Tiny Home: private kitchen is primary option for cooking — 400 square feet
- 1 Bedroom — 610 square feet
- 2 Bedroom — 850 square feet
- 3 Bedroom — 1,050 square feet
- 4 Bedroom — 1,200 square feet

b. Waivers to minimum square footage must be approved by NCHFA and requests must demonstrate that layout will not negatively impact tenants and that the size constraints are justifiable. Waivers to minimum square footage do not change accessibility requirements for design.

c. There shall be a minimum of one Type A or Fully Accessible unit, as appropriate, for each unit type (e.g. 1 bedroom, 2 bedroom). ANSI A117.1 should be referenced for

standards for accessibility. For group homes, there must be at least one accessible bedroom and accessible bathroom and other features across the home must support an accessible path and access to tenant-controlled items (thermostats, shower/tub controls, switches, outlets, laundry, work stations, etc.).

d. It is recommended that non-carpet flooring be used throughout the property. If used, carpet and pad must meet FHA minimum standards. Kitchens, dining areas, and entrance areas must be durable non-carpet flooring.
e. For ceramic tile applications, tile should be applied over cement backer board rather than directly to drywall.
f. Fireplaces are prohibited.
g. In all Type A units, there must be a minimum 67” turning radius or T-turn space compliant with ICC ANSI A117.1-2017 Section 304.3.2 in kitchen, accessible bathroom, in laundry rooms, and in closets that exceed 48” in depth. In Type A & Type units, clear floor space must meet the requirements of ANSI A117.1 (Section 305) for all of the fixtures (i.e. 52” by 30”).
h. Penetrations through walls and ceiling must be sealed with appropriate and like sealants to prevent moisture and air leakage.
i. The following areas must contain moisture resistant drywall: ceilings and walls of bathrooms, laundry rooms, mechanical closets, exterior storage closets, and behind kitchen sink base.
j. Residential floors and common tenant walls must have sound insulation batts.
k. Interior hallways must have a minimum width of 40” AFF.
l. In all types of Type A and Fully Accessible units as well as in the common areas of all buildings, any protrusion of 4” or more that is located between 27” and 80” of height must have permanently mounted edge detection extending below 27”. To minimize protrusion, it is recommended that fire extinguishers and water fountains be recessed into the wall. For cluster mailbox units, they may be recessed or mounted so that the bottom edge is detectable below 27”.
m. All interior stair handrails must be mounted on a solid wood backer board.
n. No contractor-grade, builder-grade, or apartment-grade paints or finishes allowed. Finishes must be durable, resilient, cleanable, and maintainable and adequately protect the surfaces. Finishes must present a stable surface for normal use and may not be flaking, peeling, chalky, bubbling, or otherwise unstable. Finishes must be appropriately protective for moisture exposure and anticipated wear and tear (i.e. semi-gloss in bathrooms).

5. Bedrooms

a. Bedrooms should be sized such that they provide at least 100 SQFT, excluding closets. 130 SQFT, excluding closets, is the preferred minimum for primary bedrooms. 110 SQFT, excluding closets, is the preferred minimum for secondary bedrooms.
b. Every bedroom must have a closet with a shelf, closet rod and door or curtain. The average size of all bedroom closets in each unit type must be at least 48” wide. It is recommended for closet shelves and closet rod holders to be installed in such a way as to allow closets to be lowered to an accessible reach height (below 48”) to

accommodate varying physical needs of residents.

c. All bedroom closets, interior storage rooms, coat closets, and laundry rooms/closets must have a 4” tall by 8” wide minimum pass-thru grille above doors for air circulation in those areas that do not get conditioned. Closets or rooms deeper than 48” must be served by heating and cooling systems with its own supply diffuser. Accessible closets and pantries deeper than 48” must have a full accessible turn radius.

6. Bathrooms

a. Units with 1 bathroom must utilize a shower, not a bathtub, unless the project is intended to serve families with children. Units with 2 or more bathrooms must utilize a shower in at least 1 bathroom. Low step/no step showers are the preferred aging in place/universal design option.

b. For accessible units, offset controls are required for transfer showers and tubs.

c. In all Type A units, the grab bars must be installed using ANSI A117.1, Sections 607 and 608 for bathing fixture specifications and Section 604 for toilet specifications around toilets.

d. Roll-in showers must have controls located near the hand shower by the wall-mounted bench. Consult ANSI A117.1 (Section 608) for specifications about grab bars, wheel clearance, and control locations. In roll-in showers, the shower head with wand must be installed on a sliding bar and within code required reach ranges by the seat. An additional diverter must be installed to provide water to a shower head on the short shower wall in front of the seat, mounted 80 inches above finished floor.

e. Any permanently mounted seat for accessible showers must have 12” of clear space behind on the side of the shower bench. If the shower is on an exterior wall, the bench may need to be installed on the interior side of the shower if there is not clearance on the exterior side.

f. All tubs and showers must have slip resistant floors.

g. Whirlpool baths or spas are prohibited.

h. For ceramic tile applications on walls, tile should be applied over cement backer board rather than directly to drywall.

i. All bathroom ceilings and walls must utilize mold and water-resistant wall board.

j. All bathrooms must have a medicine cabinet mounted at an accessible height.

k. All bathrooms must include an exhaust fan rated at 70 CFM (minimum) vented to the exterior of the building using hard ductwork along the shortest run possible.

l. Bathrooms shall have continuous blocking in walls using a minimum of 2x6 with the bottom located 31 inches above the floor around both toilet and shower to allow for future grab-bar installation. Regardless of whether shower/tub surrounds are reinforced, blocking is required in the walls. All accessible bathrooms must have continuous blocking installed.

m. Surrounds, tubs, and showers must not flex under a typical load of a 300-pound individual. Shower bases/pans are highly recommended to be imbedded in a mortar bed to help with weight distribution. Surrounds must be reinforced or able to support the use of grab bars when anchored to wood blocking. Wood blocking is required behind all tubs and showers to allow for future grab bar installation.

n. Wood blocking must be installed for bathroom accessories, including towel bars, towel rings, toilet tissue holders, robe hooks, etc.

o. All domestic water line shut off valves must have metal handles, not plastic.

p. A continuous bead of silicone-based caulk or equivalent must be installed at all countertop seams on vanity, where the vanity backsplash meets the wall, and around the sink for drop-in sinks.

q. A continuous bead of silicone-based caulk or equivalent must be installed at the base of the toilet.

r. For new construction projects, all tubs and showers must be one-piece and have a minimum outside dimension of 32 inches in width and 60 inches in length.

s. Bathroom fixtures in all units must use lever-style controls (not knobs).

t. Bathroom fixtures may not be builder-grade, contractor-grade, or apartment-grade. Fixtures must be of sufficient durability and quality to handle expected wear and tear for at least five years.

u. Bathroom vanity cabinets must include dual side tracks on drawers. Door fronts, styles, and drawer fronts must be made with solid wood or wood/plastic veneer products. Particle board or hardboard doors, stiles, and drawer fronts are prohibited. D-Style, Loop, or Touch controls must be used instead of knob pulls.

7. Kitchens

a. New cabinets must include dual side tracks on drawers. Door fronts, styles, and drawer fronts must be made with solid wood or wood/plastic veneer products. Particle board or hardboard doors, stiles, and drawer fronts are prohibited. D-Style, Loop, or Touch controls must be used instead of knob pulls.

b. A continuous bead of silicone-based caulk or equivalent must be installed at all countertop seams, where the backsplash meets the wall, and around the sink for drop-in sinks.

c. A pantry cabinet or closet in or near each kitchen must be provided (does not include SRO, studio or efficiency units). Pantry cabinet or closet must be 24” minimum width. Accessible closets and pantries deeper than 48” must have a full accessible turn radius complaint with ICC ANSI A117.1 Section 304.

d. All residential units must have either an automatic fire suppression canister mounted in each range hood or a dry chemical fire extinguisher mounted and readily visible and accessible in every kitchen, including a kitchen in any community building, or heat limiting devices permanently installed on ranges that limit burners from reaching temperatures high enough to ignite grease, cloth, or plastic.

e. Anti-tip devices must be installed on all kitchen ranges and be securely fastened.

f. All newly constructed independent residential units/apartments must have an Energy Star rated dishwasher and best practice is installed beside the kitchen sink. Applicant may request NCHFA to evaluate this requirement if kitchen design will not reasonably allow the appliance or if the particular type of clients will not require a dishwasher.

g. For any non-congregate housing, in-unit kitchens must have at least a cooktop, microwave, and refrigerator. If full ranges will not be made available, a common kitchen must be equipped with at least one range that is available to residents if needed.

Additional ranges are recommended for larger projects.

h. For any rental housing, a refrigerator, range, and microwave should be installed. Applicant may request NCHFA to evaluate this requirement if it can demonstrate that resident will not have frequent use of their kitchen due to food provided on-site, meal delivery services (meals on wheels), or some other alternative where cooking will not be a daily task for resident.

i. In Type A units, kitchen sinks must be rear-draining and have sink bottoms insulated if bottom of sink is at or below 29 inches above finished floor and drain is not covered by an apron.

j. Kitchen fixtures in all units must use lever-style controls (not knobs).

k. Kitchen fixtures may not be builder-grade, contractor-grade, or apartment-grade. Fixtures must be of sufficient durability and quality to handle expected wear and tear for at least five years of consistent use.

8. Laundry Facilities (if provided in individual units)

a. Washer/Dryer closets must be 36” minimum depth measured from back wall to back of closet doors.

b. Clothes dryer vent connection must be 2” maximum above finished floor.

c. All laundry room or washer/dryer closet ceilings and walls must utilize mold- and water-resistant wall board.

d. Accessible units must have a 30” x 48” clear space in front of washers and dryers. Accessible washers and dryers typically require front-loading machines. Equipment for accessible units must meet accessible reach requirements (front controls, etc.).

9. Plumbing Provisions

a. All water heater tanks must be placed in an overflow pan piped to the exterior of the building, regardless of location and floor level. The temperature and relief valve must also be piped to the exterior.

b. Water heaters must be placed in closets to allow for their removal and inspection by or through the closet door, may not be installed over the clothes washer or dryer space. Water heaters required to be elevated above the finished floor must have a water heater stand or wood platform designed for that installation. Water heaters may not be installed in exterior storage closets or in unconditioned spaces.

c. Lever-style faucet controls are required for the kitchen and bathroom faucets.

d. All domestic water line cut off valves must have metal, not plastic, handles.

e. All bathroom faucets, shower heads and toilets must be EPA “Watersense” rated.

f. Domestic water lines are not allowed in unconditioned spaces, including breezeways, attics, or community building attics.

g. All plumbing pipes must be installed inside wall cavities. Connections to water and sewer lines may not be made through floors or cabinet bottoms. It is highly recommended to leave the wall behind controls and water supply lines accessible for maintenance.

h. Provide lever faucet controls for the kitchen and bathroom sinks.

i. All tub/shower control knobs must be single lever handled. When possible, controls should be offset towards the entry side of the tub/shower for all tubs and showers. Controls must be offset for accessible tubs.

10. Electrical Provisions

a. Exterior lighting is required at each unit exterior entry door.
b. Additional exterior light fixtures not specific to a unit will be wired to a "house" panel. The fixtures will be activated by a photo cell placed on the east or north side of the buildings. This shall include all exterior stairways.
c. Switches and thermostats must not be located more than 48" above finished floor height.
d. Receptacles, telephone jacks, and cable jacks must not be located less than 15" above finished floor height.
e. Any walk-in closets must have a switched overhead light. A walk-in closet is defined as any closet deeper than 36" from the back wall to the back of the closet door in the closed position.
f. Initially installed light bulbs in all fixtures in residential units and common areas must be compact fluorescent, LED, or pin-based lighting.

11. Heating, Ventilating and Air Conditioning Provisions; Building Envelope and Insulation

a. The SHDP Energy Efficiency Standards, included in these guidelines as Appendix F (incorporated herein by reference), must be followed.
b. Fresh air returns must be a minimum of 12 inches above the floor.
c. Range hoods and micro-hoods must be vented to the exterior of the building with galvanized sheet metal using the shortest possible run.
d. Exterior exhaust vents must be mechanically secured to siding and/or brick veneers.
e. Venting for exhaust fans may not terminate in roof soffits.
f. Total dryer vent run may not exceed 35 feet, including deductions for elbows.
g. Dryer exhaust ducts may not be vented through the roof.

12. Radon Ready Ventilation and Testing

Passive, "stack effect" systems radon ventilation systems are required for all new construction projects in counties in Zone 1 or 2, and highly recommended in all locations for new construction despite location. Aggregate used in concrete is not tested for radon, and it is possible to create a radon hazard in a building where the natural soil did not have radon gas present.

A list of zones by county is available at:
https://www.epa.gov/sites/production/files/2014-08/documents/north_carolina.pdf

For new construction projects in radon Zone 1 and 2, at a minimum, systems must include:

1. **Gas Permeable Layer of Aggregate**: This layer is placed beneath the slab or flooring system to allow the soil gas to move freely underneath the house and enter an exhaust pipe. In many cases, the material used is a 4-inch layer of clean gravel.
2. **Plastic Sheeting/Soil Gas Retarder**: This is the primary soil gas barrier and serves to support any cracks that may form after the basement slab is cured. The retarder is usually made of 6 mil polyethylene sheeting, overlapped 12 inches at the seams, fitted closely around all pipe, wire, or other penetrations, and placed over the gas permeable layer of aggregate.
3. **PVC Vent Pipe**: A straight (no elbows) vertical PVC vent pipe of 3-inch diameter must be connected to a vent pipe "T" which is installed below the slab in the aggregate. The "T" pipe extensions under the slab may not be encapsulated in concrete footings and must be open to aggregate layer. The straight vent pipe runs from the gas permeable layer (where the "T" is) through the apartment to the roof to safely vent radon and other soil gases above the roof. A 12- inch perforated PVC pipe must be attached to the "T" on both ends in the aggregate to allow radon gas to easily enter the piping. The straight vent pipe runs vertically through the building and terminates at least 12 inches above the roof's surface in a location at least 10 feet from windows or other openings and adjoining or adjacent buildings.

On each floor of a multi-story building, the pipe should be labeled as a "Radon Reduction System".

Sealing and caulking with polyurethane or silicone on all openings in the concrete foundation floor must be used.

Install a power supply accessible to the upper top 50% of the pipe in case there is a need to convert to an active radon system.

Radon Testing and Federally-Funded Projects
All federally-funded residential projects, new construction, or rehabilitation may be required to be tested for radon levels. If required, radon tests must be administered when the building envelope is complete and the air infiltration from activity or open windows/doors is minimal. Federally-funded projects will be subject to a "Short Term" Radon Test, and if the result is a reading of 4 picoCuries per liter of air (pCi/L) or higher, a follow-up "Short Term" test will be performed. When a second test is required average the results. If the average is above 4 pCi/L, remediation is required. Testing should follow the protocols specified by AARST: https://standards.aarst.org/MAH-2023/index.html#zoom=z

In the event that measured levels of radon exceed 4 pCi/L, remediation measures must be taken to reduce the level to 4 pCi/L or below.

More radon related information about Radon resources and compliance can be found at:

a. https://www.ncdhhs.gov/divisions/health-service-regulation/north-carolina-radon-program/radon-mitigation
b. https://ncradon.org/
c. EPA's "A Citizen's Guide to Radon"
d. https://www.epa.gov/radon

13. Outside Postal Facilities and Cluster Mailbox Units, if provided

a. Postal facilities and cluster mailbox units must be located adjacent to available parking and sited such that tenants will not obstruct traffic while collecting mail.
b. Outside postal facilities and cluster mailbox units must have a roof covering which offers residents ample protection from the rain while gathering mail.
c. Postal facilities and cluster mailbox units must include adequate lighting on from dusk to dawn.
d. Configuration of the mail boxes must meet the 2018 NC Accessibility Code. In front of the cluster mailbox, there must be a weather-protected, traffic-free clear space of at least 30” x 48” with no slope or cross-slope exceeding 2%.
e. Indoor or enclosed mail collection areas must have a 67” minimum circular turning radius or a t-turn radius compliant with e ICC A117.1–2017 Section 304.3.2.
f. Sufficient mailboxes, at least one for each unit, must be within accessible reach and height for each Type A unit with controls and access between 15” and 48”. At least one mailbox must be within reach range of 15” to 54” for each Type B unit. Accessible mailboxes may not be installed higher than 48” above finished floor and must be centered with a 48-inch clear floor space for a parallel approach.

14. Common Laundry Room (if provided)

a. The property must provide washers and dryers for residents, either in each residential unit or in an on-site laundry facility. If a laundry facility is provided, there must be a minimum of 1 washer and 1 dryer per 12 residential units.
b. Per laundry facility, a minimum of 1 washer and 1 dryer must be ADA compliant. Typically, this will require front-loading washer and dryers. All controls (typically front controls) and the space within the washer and dryer must be within an accessible reach range. A 30” x 48” clear floor space must be present in front of the designated accessible washers and dryers allowing a parallel approach to both any accessible equipment. The size and location of clear space must comply with ANSI A117.1-2017.
c. The entrance must have a minimum roof covering of 20 SQFT.
d. A table or countertop on which to fold clothes must be installed. The working surface must be 28” to 34” above the floor, and must have a 27” high clear knee space below. The working surface must be a minimum 48” long, and have a 30” X 48” clear floor space around it. This table or countertop must meet Accessibility standards.
e. The primary entrance door to the laundry must be of solid construction and include a full height tempered glass panel to allow residents a view of the outside/inside.
f. The laundry room must be positioned on the site to allow for a high level of visibility from residential units or the community building/office.
g. The laundry room must have adequate entrance lighting that is on from dusk to dawn.
h. The laundry facility must be adjacent to the community building or office (if provided) to allow easy access and provide the proper number of Accessible parking spaces. Access to the facility must be along an accessible path either from parking or residential units.

15. Community / Office Spaces (If provided)

a. A community office / meeting space for tenants and service providers must be included on any project of 16 or more units.
b. Any office must be at least 200 SQFT (inclusive of an Accessible toilet facility) and any maintenance room must be at least 100 SQFT.
c. Any office must be situated as to allow the site manager a prominent view of the residential units, playground, entrances/exits, and vehicular traffic.
d. A frost-proof exterior faucet must be installed on an exterior wall in a convenient location.

16. Playground Areas (If provided)

a. Wherever possible tot lots and playgrounds should be located away from areas of frequent automobile traffic and situated so that the play area is visible from the office and from the maximum number of residential units.
b. A bench must be provided at any playground(s) to allow a child's supervisor to sit. The bench must be anchored permanently, weather resistant and have a back. An accessible path must be available to any benches or seating areas.
c. Playgrounds must meet Accessibility standards. Walking surface must be an approved material for accessible access. An accessible clear area must be located around equipment with at least one piece of equipment available for interaction. Ramps, if required for access to playground area, must allow for accessible entry (slope, width, handrails depending on height). Playgrounds and other amenities must be on the accessible path. Playground surface materials guidelines and standards include:
    i. ASTM F1951 (Specification for Determination of Accessibility of Surface Systems)
    ii. ASTM F1292 (Specification for Impact Determination)
    iii. ASTM F1487 (Standard Consumer Safety Performance Specification)
    iv. ASTM F2020 (Standard Specification for Engineered Wood Fiber
    v. ASTM F2479 (Specification Guide for Products and Installation of Poured-In-Place Surfaces

17. Exercise Rooms (If provided)

a. Exercise rooms must arrange equipment to allow at least a 32" clear space to the side of each type of equipment for side transfer.
b. Exercise rooms require a larger clear space of at least 36" x 48" to allow for movement within the space.

18. Universal Design, Visitability, & Aging in Place

All units funded with SHDP should include universal design features in every unit, regardless of accessibility designation. While some layouts and scopes of work may limit incorporation of universal design features, units should support aging in place and the visitability by non-tenants who may need to navigate the space. Universal design features should be included for new construction and to the degree that rehabilitation work allows. For rehab, items that are replaced or built new should prioritize universal design features.

a. Home entry door, bedroom entry and bathroom entry must be a minimum of 32” clear. A visitable route from an exterior entrance through interior hallways must provide access to these interior entries, and this route must be a minimum of 36 inches clear throughout.
b. Bathrooms shall have continuous blocking in walls using a minimum of 2x6 with the bottom located 31” above the floor around both toilet and shower to allow for future grab-bar installation.
c. When possible, unit door handles shall use lever style knobs.
d. When possible, cabinet doors and drawers shall use D-style or loop pulls, or have touch open.
e. Where the site and layout allow, incorporate at least one stepless entry.
f. Light switches, electrical outlets, thermostats, fuse boxes/breaker panels, and other controls should be at universal height: between a maximum of 48” measured to the top (not the centerline) of the device and a minimum of 15”.

Additional Provisions

1. For Rehabilitation Projects

The SHDP provides funding for projects where a building must be moderately or substantially rehabilitated before use. Applicants must be prepared to evaluate the existing building and coordinate with architects, rehabilitation specialists, local government code officials, licensure authorities (if applicable), and others as needed to develop a detailed scope of work and plan for rehabilitation.

At a minimum any work done must bring the property condition to meet the Department of Housing and Urban Development's Housing Quality Standards (HQS). HUD publishes and updates the HQS inspection form on its website at: https://www.hud.gov/sites/documents/52580-A.PDF.

In order for a project to be eligible for SHDP funding, at a very minimum the scope of work developed through the detailed work-write up must identify, evaluate, and adequately address issues related to occupancy (egress, imminent threats to safety, trip/shock hazards, air quality, vermin/pests, etc.), structure (failing components, etc.), useful life of building systems (replace or repair when necessary), function (building features that are present must work appropriately and as an occupant would expect). As a general rule of thumb, building systems that would reasonably appear to require replacement or significant repair to function another **5** years should be addressed as part of the approved scope of work.

A ***Detailed Work Write-Up*** must be completed by a qualified professional (see **Appendix H for an example**) and all deferred maintenance must be addressed in the rehabilitation, as reviewed and approved by NCHFA. Any HVAC units, appliances, windows or other energy rated items which are replaced must meet NCHFA's current energy standards. All common use areas must be fully accessible to those with disabilities in compliance with all applicable State and Federal laws and regulations.

At application a full Physical Needs Assessment may be required if the rehabilitation is extensive and at the discretion of NCHFA. Additionally, other inspections that may be required if structural threats are identified. If the property was built before 1978, a lead-based paint inspection or risk assessment must be conducted unless the organization has a pre-existing one it can provide. If the scope of the project may disturb sites containing asbestos, asbestos testing must also be conducted. Asbestos and lead-based paint can be combined into a single risk assessment. Before the full application, the risk assessment should be conducted as contractors must be adequately qualified to address lead-based paint and asbestos if present.

A final inspection will be completed by NCHFA Inspection staff before SHDP loan closing to ensure all work items are complete and the condition of the building addressed by the scope of work meets or exceeds HQS standards. Essentially, the work performed must meet or exceed the initial scope of work with consideration for any change orders. Applicants must notify NCHFA of all significant adjustments to the scope of work after approval, and NCHFA must acknowledge and agree to all change orders that would fail to meet SHDP Design Standards or are clear significant changes to a previously approved scope of work. Justification must be provided for change orders that are substantial to the scope of work and updated drawings may

be required if the layout of the building changes. Please notify assigned NCHFA project manager and Josh Burton by e-mail at jdburton@nchfa.com.

Where required by building code, permits must be pulled and inspected by local code officials. **All work must be performed in a manner consistent with state and local building codes**. Documentation of permitted work, code approvals/waivers, and certifications for environmental contractors must be maintained by the project manager and made available for inspection by NCHFA staff.

Rehabilitation projects must meet all applicable Federal, State, and Local building and accessibility standards. Applicants shall make accessibility modifications and energy efficiency improvements which are feasible and cost effective to units and, if applicable, as allowed by historic preservation rules.

At a minimum, any component of the building which is replaced, must meet the new construction Design Standards. To whatever degree feasible and accessible, building systems adjacent to or made accessible by replacement should be brought up to the new construction Design Standards. For example, if wallboard is replaced, insulation if insufficient should be brought to the current standard while accessible.

Additionally, the following requirements apply to **rehabilitation or adaptive reuse** of existing units:

a. A hazardous material report must be submitted, and must include information on asbestos-containing materials, lead based paint, Polychlorinated Biphenyls (PCBs), underground storage tanks, petroleum bulk storage tanks, Chlorofluorocarbons (CFCs), and other hazardous materials. A plan and projected costs for removal of hazardous materials must also be included.
b. A current termite inspection report must be provided.
c. For properties built prior to 1978, a lead-based risk assessment must be conducted as part of the evaluation. Where applicable certified lead-based paint abatement contractors shall be utilized for abatement activities. Contractors engaged in renovation work and stabilization of trim, doors, wall and exterior finishes shall at a minimum be Renovation, Repair, and Painting certified. A list of certified contractors can be found at: https://schs.dph.ncdhhs.gov/lead/accredited.cfm.

2. For Adaptive Re-use of Existing Structures

a. Mechanical Systems: All mechanical systems (including HVAC, plumbing, electrical, fire suppression, security system, etc.) must be completely enclosed and concealed. This may be achieved by utilizing existing spaces in walls, floors, and ceilings, constructing mechanical chases or soffits, dropping ceilings in portions of units, or other means. Where structural or other significant limitations make complete enclosure and concealment impossible, the applicant must secure approval from NCHFA prior to installation of affected systems.
b. Windows: If original window sashes, frames, and trim are retained, they must be repaired and otherwise upgraded to ensure that all gaps and spaces are sealed so as to be weather tight. All damaged or broken window panes must be replaced. Where

original window sashes cannot be retained, replacement sashes must be installed into existing frames. In all cases, windows must be finished with a complete coating of paint.

c. Floors: Where possible, wood flooring should be restored to original condition. Where repairs are necessary, flooring salvaged from other areas of the building must be utilized as fill material. If salvaged wood is not available, flooring of similar dimension and species must be used. All repairs must be made by feathering in replacement flooring so as to make the repair as discreet as possible. Cutting out and replacing square sections of flooring is prohibited. Where original flooring has gaps in excess of 1/4 inch, the gaps must be filled with an appropriate filler material prior to the application of final finish.

Hazardous Materials: Submit a hazardous material report that provides the results of testing for asbestos-containing materials, lead-based paint, Polychlorinated Biphenyls (PCBs), underground storage tanks, petroleum bulk storage tanks, Chlorofluorocarbons (CFCs), and other hazardous materials. A plan and projected costs for removal of hazardous materials must also be included. If lead-based paint cannot be entirely removed, it must be stabilized and enclosed.

Accessibility Requirements

All newly constructed buildings or substantial rehabilitation shall meet the requirements of the Federal Fair Housing Amendments Act of 1988, the Americans with Disabilities Act, the most recent North Carolina State Accessibility Code and the following SHDP Design Standards. These SHDP standards are drawn from the **NC Accessibility Code and ICC ANSI A117.1-2017** and are included here for emphasis as important items which are often overlooked or which cause confusion.

If any of the guidance included here is in conflict with the NC Accessibility Code and compliance with ICC ANSI A117.1-2017, projects must, at a minimum, comply with the NC Accessibility Code requirements and current ANSI specifications. In the event new requirements are issued, projects are expected to comply with the applicable NC Accessibility Code and the most recent ANSI specifications. Required documents must be prepared by an engineer or architect licensed to do business in North Carolina.

The decision of whether to follow the Fully Accessible or the Type A requirements depends on the Occupancy Type (e.g. R-1, R-2) designation. Applicants and their architects should consult their county codes enforcement department and any licensure organizations which may require a certain level of accessibility.

Any accessible unit not built to meet Fully Accessible or Type A requirements shall be built to meet Type B. SHDP requires that at least one unit of each type in the project be accessible. For projects over 5 units total, at least 5% of units must be mobility accessible and at least 2% must be accessible for persons with visual or hearing disabilities. More information is referenced here about HUD requirement (if applicable) and Fair Housing Requirements:

https://www.hud.gov/program_offices/fair_housing_equal_opp/physical_accessibility.

1. Common and Living Areas throughout the Building

a. All common areas such as patios, decks, balconies, carports, terraces and garages must be accessible.

b. Light switches, electrical outlets, thermostats, fuse boxes, and other controls shall be at

an accessible height: a maximum of 48” measured to the top (not the centerline) of the device and a minimum of 15” Above the Finished Floor (AFF) measured to the bottom (not the centerline) of the device. Controls to devices, including touchscreens and motion sensors, must be below 48” if required for operation.

c. Throughout all common use areas there must be an accessible path of travel a minimum of 36” wide, with a 40" wide accessible path in food prep areas.
d. All doors in common use areas must have a minimum 36” nominal width and a minimum 18” clear floor space on the pull-side of the door.
e. Doors to Fully Accessible and Type A bedrooms must have a minimum 32” clear opening when the door is fully open and a 36” approach. Doors to Type B bedrooms must have a minimum 31¾" clear opening.
f. The maximum threshold height at any entry door is ½”, with the exception of ¾" at a sliding door.
g. Kitchen and bathroom sinks must have lever faucet controls.
h. Receptacles, telephone jacks and cable jacks must not be located less than 15” above finished floor height as measured to the bottom (not the centerline) of the device.
i. Fully Accessible and Type A units must be designed such that when typically furnished there will still be proper clearances, clear spaces, and maneuvering spaces.

2. Kitchens

At least one kitchen must be Fully Accessible or Type A as appropriate with these features:

a. Faucets must have lever handles.
b. Stove must have Front controls.
c. Minimum 67” turning radius or T-turn space compliant with ICC ANSI A117.1-2017 Section 304.3.2 in kitchen. (NCHFA recommends the building be designed with a 68” turning radius to allow for a margin of error during construction.)
d. All range hood functions must have a remote switch at an accessible location.
e. Drawers and cabinet doors must have loop or “D” shape handles or touch controls.
f. Dishwasher must not have rotary controls.
g. Counter top height must not exceed 34” Above the Finished Floor (AFF).
h. For residential unit kitchens, a roll-under work station must be installed, with a minimum 30” width with no wall immediately to the left of right of the work station. Remote switches for range hoods are typically installed here. Work stations should be located to the right or left of the range/stove or microwave as applicable.
i. A wall cabinet is recommended to be mounted over the work station at 48” maximum above finished floor to the top of the bottom shelf.
j. Kitchen sinks must be at 34” maximum AFF, be rear-draining, and have sink bottoms insulated or covered with apron if bottom of sink is at or below 29” AFF.
k. Part of pantry the shelving mounted must be at a maximum of 48" AFF.
l. The refrigerator must be ADA compliant. Typically, these approved models are side-by-side or small top-freezer types. Doors must open beyond 90 degrees to allow bin removal. All sections of the freezer must be within the accessible reach limits of 48”

maximum height and 15” minimum height.

m. Kitchen design should include an electrical outlet over any counter more than 12” in width. A GFCI reset outlet cannot be placed more than 24” from any countertop edge or within 36” from any countertop corner. A GFCI reset outlet cannot be placed behind appliances like refrigerators or stoves, or mounted inside cabinets.

3. Laundry space, if provided

a. There must be at least one front-loading washer and one front-loading dryer with push controls. If three or more washers and/or dryers are provided, a minimum of two each must meet this requirement.

b. A clear space of minimum 30” by 48” must be provided at each appliance, with the location complying with ANSI A117.1.

c. Doors shall be minimum 36” nominal width.

d. A clear space of 18” minimum must be provided at the pull side of the latch.

e. If laundry space is provided in each Fully Accessible or Type A unit, it must meet accessibility requirements with the washer and dryer installed.

4. Bedrooms

At least one bedroom must be Fully Accessible or Type A with the following features. In addition to resident bedrooms, if the property has resident staff, at least 1 staff bedroom and one staff bathroom must be Fully Accessible or Type A as appropriate:

a. Any walk-in closet must have a clear path, in and out, of a minimum 36” width after clothes are hung on all hanger rods.

b. Closets must have a majority of shelving and hanger rods at a maximum of 48" AFF.

c. A clear space of 18” minimum must be provided beside any entry door.

d. Entry doors must be 36” minimum.

e. Any non-walk-in closet shall have a maximum depth of 24” and a door opening of 36”.

f. Entry doors must have lever handles.

g. Sliding closet doors must have loop door handles on sliding closet doors, otherwise lever door handles are required.

h. Any permanently installed telephone must include volume control.

i. Fire alarms must include a visual signal.

j. Pocket doors are discouraged. If installed, they must have loop or D style handles. For accessible units they must have the proper clearances.

5. Bathroom

At least one bathroom must be Fully Accessible or Type A as appropriate with the following features:

a. Minimum 67” turning radius or T-turn space compliant with ICC ANSI A117.1-2017 Section 304.3.2 in kitchen. (NCHFA recommends the building be designed with a 68” turning radius to allow for a margin of error during construction.)

b. Reinforced grab bars installed around toilet and tub per NC Accessibility Code building code and ANSI A117.1 Sections 607, 608, and 609.
c. Medicine cabinet bottom shelf at 44” maximum AFF.
d. The reflective edge (not the frame) of all mirrors must be mounted so that the bottom edge of the reflective surface starts no higher than 40”.
e. Minimum one towel bar at 48” maximum.
f. Handicap compliant toilet centered 18” from finished wall.
g. Loop handles on drawers and cabinet doors.
h. Knee space below sink with insulated pipes per building code.
i. Sink height at 34” maximum AFF.
j. Faucets must have lever handles.
k. Minimum 18” clear space beside door on the pull side and 12” clear space on the push side.
l. Door width minimum 36” nominal.
m. Any linen closet maximum depth 24” and a minimum door opening of 24”.
n. Shower or tub seat with a minimum 16” depth.
o. Tub or shower controls and hand-held shower complying with the 2018 NC Accessibility Code. Reference ANSI A117.1 Section 608 for the location of shower controls. Tub controls must be offset in accordance with ANSI A117.1 Section 607.
p. In roll-in showers the shower head with wand must be installed on a sliding bar and within code required reach ranges by the seat. An additional diverter must be installed to provide water to a shower head on the short shower wall in front of the seat. Hand-held shower must have non-positive shutoff switch.
q. Tub or shower controls within 27" reach range of seat.
r. Centerline of toilet flange must be installed 18” to sidewall or edge of adjacent fixture.
s. Minimum depth 36” clear space at opening to tub or shower.
t. Countertop space in bathrooms for Fully Accessible and Type A units must be equivalent to that of the bathrooms in Type B units.
u. Any modular tub and shower surrounds shall have grab bar reinforcing built directly into the surround at the proper locations. This shall also include one-piece tubs and showers.
v. Any tub or shower with a built-in seat shall have at least 12” in the clear space beyond the seat to facilitate transfer from the wheelchair to the seat. This includes both roll-in and transfer showers.
w. If roll-in showers are utilized, a minimum 34” wide roll-in shower with caulked rubber dam installed. For roll-in showers, the shower head with wand must be installed on a sliding bar. Reference ANSI A117.1 for the location of shower controls (Section 608).
x. Approaches to roll-in showers must be level, not sloped.
y. All independent rental units require at least one full bathroom.
z. All tubs and showers must have slip resistant floors.

6. Exterior

a. The Accessible parking spaces shall be the closest spaces to an accessible entrance and

no more than 200’ from that entrance.

b. Sidewalks directly in front of parking spaces must be sufficiently wide to allow the required 48" width clearance when cars are parked. Parking lot bumpers may be necessary to prevent cars overhanging sidewalk if sidewalks are close to 48” wide. Travel space around the ramp area in a sidewalk must be 48" wide.

c. Common use areas like mailboxes, trash receptacles, playgrounds, picnic tables, gazebos, etc. shall be located on the Accessible Path not leaving the property and must meet any applicable 2018 NC Accessibility Code requirements. Particular attention should be paid to the slope and materials used within the clear space surrounding common mailboxes and trash/recycling facilities.

Moderate Rehabilitation

Moderate rehabilitation projects typically are for buildings that may need minor repairs or the replacement of easily accessed hardware and equipment and generally leave walls and other structural items undisturbed.

Moderate rehabilitation projects must meet all applicable Federal, State, and Local building and accessibility standards. Applicants shall make accessibility modifications and energy efficiency improvements which are feasible and cost effective to units. To the degree that moderate rehab work allows access or already requires the replacement of materials, accessibility, universal design, or energy efficiency should to be included as part of the work. For example, if kitchen cabinets are replaced as part of a moderate rehabilitation, new pulls should be D-Style, Loop, or touch controls. If all door knobs will be replaced, they should be replaced with lever style knobs. If all HVAC systems are replaced, accessible duct work should be sealed with mastic and equipment should meet at least the SHDP guideline standards. If the rehabilitation calls for replacement across the project, the new hardware or equipment should meet the new construction standards listed in the guidelines.

A ***Detailed Work Write-Up*** must be completed by a qualified professional (see **Appendix H**) and all deferred maintenance must be addressed in the rehabilitation, as reviewed and approved by NCHFA. Any HVAC units, appliances, windows or other energy rated items which are replaced must meet NCHFA’s current energy standards. All common use areas must be fully accessible to those with disabilities in compliance with all applicable State and Federal laws and regulations.

Alternative Construction Materials

Any alternative construction material such as 3D-printed homes or container homes must meet the effective NC Building Code. To the degree possible projects are expected to incorporate SHDP standards. Any exceptions due to alternative materials must be approved in writing by NCHFA.

Definitions

Accessible Route: Accessible routes shall comply with ICC/**ANSI A117.1** Section 1002.3.
At least one accessible route shall connect all spaces and elements that are a part of the unit. Where only one accessible route is provided, it shall not pass through bathrooms and toilet rooms, closets, or similar spaces (*Exception: An accessible route is not required to unfinished attics and unfinished basements that are part of the unit.). All rooms served by an accessible route shall provide a turning

space complying with ICC/**ANSI A117.1** Section 304.

Accessible routes shall consist of one or more of the following elements: walking surfaces with a slope not steeper then 1:20 (5%), ramps, elevators, and platform lifts and 1:50 (2%) for lateral slope or clear spaces for entries. Walking surfaces shall comply with ICC/**ANSI A117.1** Section 403. Obstructions (water fountains, signs, fire extinguishers) cannot stick into the route more than 4" without permanently-installed edge detection and may not reduce the minimum space required for the route.

Adaptive Reuse: The conversion of a structure from a non-residential use (e.g. school, commercial, industrial) into housing.

AFF: Distance above the finished floor (e.g. measuring from the top of the tile in the bathroom)

Efficiency Apartment/Tiny Home: A unit with a minimum of 400 heated square feet (assuming new construction or adaptive re-use) in which the bedroom and living area are contained in the same room. Each unit has a full bathroom (bathing fixture, lavatory, toilet) and full kitchen (stove top/oven, sink, full size refrigerator) that is located in a separate room.

Heated Square Feet: The floor area of an unit, measured interior wall to interior wall, not including exterior wall square footage. Interior walls are not to be deducted, and the area occupied by a staircase may only be counted once.

Moderate Rehabilitation: Rehabilitation that leaves most or all wall surfaces in place and may or may not replace mechanical systems.

Net Square Feet: Total area, including exterior wall square footage, of all conditioned (heated/cooled) space, including hallways and common areas.

Single Room Occupancy (SRO) Unit: A single room unit with a minimum of 250 heated square feet (assuming new construction or adaptive re-use) that is the primary residence of its occupant(s). The unit must contain either a full bathroom (bathing fixture, lavatory, toilet) or a full kitchen (stove top/oven, sink, full size refrigerator) but not both. There are shared common areas in each building that contain elements of food preparation and/or sanitary facilities that are missing in the individual units. If kitchenettes are used, there must also be an onsite public kitchen option or food provided by project.

Studio Apartment: A unit with a minimum of 325 heated square feet (assuming new construction or adaptive re-use) in which the bedroom, living area and full kitchen are contained in the primary living space. Each unit has components of a full bathroom (bathing fixture, lavatory, toilet) and full kitchen (stove top/oven, sink, full size refrigerator). If kitchenettes are used, there must also be an onsite public kitchen option or food provided by project.

Substantial Rehabilitation: Rehabilitation that removes wall surfaces to the studs and all major mechanical systems.

Turning Space: Turning spaces are required in each room (except for private administrative space, but recommended if staff or volunteers may require accessible access). This space can be circular or T-shaped. The turning space can include knee and toe clearances under sinks, water fountains, work stations, counters, shelves, etc.

Type A Unit: A Type A dwelling unit is designed and constructed to provide accessibility for wheelchair users throughout the unit, and as such, is considered more accessible than a Type B dwelling unit. The technical requirements for the interior of Type A units are in Section 1003 of ICC/ANSI A117.1

Type B Unit: Units that meet the Fair housing Act design guidelines and minimum requirements in Section 1004 of ICC/ANSI A117.1. Generally, these units are adaptable for accessibility needs and aging in place.