APPENDIX B

20276 Design Quality Standards and Requirements

The terms of this Appendix B are the minimum requirements for any project awarded low-income housing tax credits in 20276, and are based on the ICC ANSI A117.1- 2017 requirements. In the event new requirements are issued, projects are expected to comply with the most recent ANSI requirements. All developments must adhere to the current State Building Code and Energy Star (except as otherwise specified for HOME and NHTF funded projects as set forth in Appendix G) in effect at the time of construction.

ENERGY STAR CERTIFICATION

New construction projects must achieve ENERGY STAR Multifamily New Construction Program certification version 1.1 or the current version as of construction permitting. Please refer to https://www.energystar.gov/partner-resources/residential-new/multifamily-national-page for the current version. Projects awarded federal funds are required to implement version 1.2. Certification must be verified by an independent, third-party expert who assists with project design, verifies construction quality, and tests completed units. Adaptive re-use and rehabilitation projects must comply to the extent doing so is economically feasible and as allowed by historic preservation rules.

Third party accredited energy professional raters must perform blower door tests on the greater of 10% of the total number of units or 8 units. The units tested must be different unit types and in different building locations. Units that fail the blower door tests must be reported to the Agency at the time of failure. Additional testing may be required at owner's expense.

Owners are required to submit final plans and specifications, in pdf format, as a project update and receive approval before commencing site work or construction.

At all times after award the owner is responsible for promptly informing the Agency of any changes or alterations which deviate from the final plans and specifications approved by the Agency at full application. In particular owners must not take action on any material change in the site layout, floor plan, elevations or amenities without written authorization from the Agency. This includes changes required by local governments to receive building permits.

I. DESIGN DOCUMENT STANDARDS

All required documents must be prepared by an engineer or architect licensed to do business in North Carolina. All drawings must be to scale, using the minimum required scale as detailed below.

A. PRELIMINARY APPLICATION PLAN REQUIREMENTS

Plans must in PDF format for uploading into the application system and indicate the following:

1. Street name(s) where site access is made, site acreage, planned parking areas, layout of building(s) on site to scale, any flood plains that will prohibit development on site, retaining walls where needed, and adjacent properties with descriptions.
2. Unit floor plans, front, rear and side elevations of **ALL** building types and identify all materials to be used on building exteriors.
3. Use a 1/8" or 1/16" scale for each building.

B. FULL APPLICATION PLAN REQUIREMENTS

Site and floor plans must be in PDF format for uploading into the application system and indicate the

following:

1. Location of, and any proposed changes to, existing buildings, roadways, and parking areas. Handicap parking spaces with access aisles and regular parking spaces must be clearly depicted.
2. All existing site and zoning restrictions including setbacks, right of ways, boundary lines, easements, wetlands and any flood plains.
3. Existing topography of site and any proposed changes including retaining walls.
4. Front, rear and side elevations of **ALL** building types and identify all materials to be used on building exteriors.
5. Landscaping and planting areas (a plant list is not necessary). If existing site timber or natural areas are to remain throughout construction, the area must be marked as such on the site plans.
6. Locations of all site and common area features such as playground(s), gazebos, walking trails, refuse collection areas, postal facilities, picnic shelter(s), sitting areas, and site entrance signage. All interior common areas must also be located and labeled, including offices, computer room, exercise room, maintenance room, sitting areas, library, card room, screen porches, interior resident storage rooms, etc.
7. The location of units, common use areas and other spaces using a minimum scale of 1/16" = 1' for each building.
8. Dimensioned floor plans for all unit types using a minimum scale of 1/4" = 1'.
9. Net building square footage and heated square footage. See Definitions in this Appendix.
10. For projects involving renovation and/or demolition of existing structures, proposed changes to building components and design and also describe removal and new construction methods.
11. For projects involving removal of asbestos and/or lead based paint removal, general notes identifying location and procedures for removal.

C. AWARDED PROJECT PLAN REQUIREMENTS

All plans of awarded projects must submit the following drawings listed below. Complete plans are required for the Agency to conduct a plan review. Incomplete submissions ~~plan sets~~ will not be reviewed:

1. A Page Index at the front of the plan set showing location of all pages within the plans.
2. The plan set must include Section 1106 (Accessible Parking) and Section 1107 (Accessible Dwelling Units). All t~~T~~ables must be accurately completed ~~populated~~ by project architect.
3. Unit Matrix: Must show unit type and location of ALL units per building and per floor level.
4. Civil Plans: Include site plan showing placement of handicap units in residential buildings, grading plans with enlarged elevations showing spot elevations around the site and building foundations, finished floor elevations shown on all buildings, drainage plans, erosion control plans, utility plans, sewer profile plans, storm drainage plans and profiles and water and sewer details.
5. Accessible Route plan: Must show locations of all accessible parking spaces and access aisles. Must show accessible route(s) throughout the property and accessible sidewalk to public right-of-way.

~~6. Photometric Site Lighting plan: Must show site lighting and building wall-mounted lighting.~~

~~7.~~6. Site Accessory plans: Plans to include drawings and details for site structures including monument signage, picnic shelters, garden plots, arbors, garages, mailbox kiosks and gazebos. Must have details for handicap parking spaces with access aisles, site entry signage and accessible (all) dumpster corals.

~~8.~~7. Landscape plans: Must show foundation plantings and tree installations.

8. Foundation plans: Must be dimensioned and identify all unit types and locations of recessed slabs for roll-in showers.

9. Structural plans: Must be dimensioned and prepared by licensed engineer and be project specific.
10. Architectural plans: All plans must include dimensioned building floor plans (one detail per residential floor and per building), dimensioned unit plans for every type of unit (including Type A handicap units with roll-in showers and units with tub/showers, Type B (FHA) units and standard units). Unit plans must be ¼" scale or larger. Buildings with stairs must have stair details.
~~10.~~
11. Architectural Detail plans: Plans must include unit and common area finish schedule, door schedule, door hardware schedule, appliance schedule (for Type A, Type B, standard units and common areas), all kitchen appliance/cabinet elevations, all bathroom cabinet/fixture elevations and typical through-wall details.
12. Plumbing plans: Must include labeled building floor plans (one detail per residential floor and per building). Must include labeled unit plans for all unit types. Plans must include waste and domestic water diagrams. Must include plumbing fixture schedule showing all fixtures, including multiple bathing fixtures that serve multiple types of units (Type A, Type B and standard units). Must have water heater detail.
13. Mechanical plans: Must include building floor plans (one detail per residential floor and per building). Must include labeled unit plans for all unit types. Plans must show clothes dryer venting details with distance to exterior, laundry hookup details and HVAC equipment.
14. Electrical plans: Must include building floor plans (one detail per residential floor and per building). Must include labeled unit plans for all unit types. Plans must have electrical fixture schedules. ~~-~~Must show hard-wired sight and hearing-impaired device features.
15. ~~Fire sprinkler plans and Fire Alarm: Must show plans for all units and all buildings.~~
16. As a reminder, the handicap units shown on the unit matrix, site plan(s), foundation plan(s), building floor plans, plumbing building floor plans, HVAC building floor plans and electrical building floor plans must be in the same locations.
17. Radon Mitigation Plans where required for properties located in zones 1 and 2~~2 and 3~~
18. ~~.~~ Photometric site lighting plans, along with fire sprinkler and fire alarm plans, must be included in the as-built documentation submitted with the final cost certification package.

II. BUILDING AND UNIT DESIGN PROVISIONS

A. EXTERIOR DESIGN AND MATERIALS

1. Building design must use different roof planes and contours to break up roof lines. Wide window and door trim must be used to better accent siding. If horizontal banding is used between floor levels, use separate color tones for upper and lower levels. If possible, use horizontal and vertical siding applications to add detail to dormers, gables, and extended front facade areas.
2. The use of no or very low maintenance materials is required for exterior building coverings on all new construction projects. These include high quality vinyl siding, brick, or fiber cement siding. The use of metal siding is prohibited. Vinyl siding must have a .044-inch thickness or greater and a limited lifetime warranty. Where band/ledger boards attach to and are part of the vinyl siding application, metal z-flashing must be installed behind, on top of, and below bands.
3. 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.
4. All buildings must include seamless gutters and aluminum drip edge on all gable rakes and fascia boards. Drip edge must extend a minimum of 2 inches under the shingles. Downspouts must be installed so as not to drain across pedestrian path of travel.
5. All building foundations must have a minimum of 12 inches exposed brick or masonry veneer above finished grade level (after landscaping). No exposed footings will be allowed.
6. Breezeway and stairwell ceilings must be constructed of materials rated for exterior exposure.

7. A minimum 48-inch path of travel is required through building breezeways.
8. Buildings and units must be identified using clearly visible signage and numbers. Building and unit identification signage must be well lit from dusk till dawn and meet ANSI A117.1, Section 703 standards.
9. An accessible automatic door opener is required for the primary entrance into and out of senior congregate buildings.
10. Stairs in breezeways and building stairwells (not to include unit interiors) must have a minimum clear width of 40 inches between handrails and be completely under roof cover. Handrails must be 1 ¼ to 1 ½ inches in diameter. Cane detection rails must be installed 26 inches minimum to 27 inches maximum above finished floor to top rail.
11. Exterior railings must be made of vinyl, aluminum or steel (no wood).
12. Anti-fungal dimensional (architectural) shingles with a minimum 30-year warranty are required for all shingle roof applications. All other types of roof coverings or installations must have a minimum 30-year warranty.
13. Covered drop-offs must have a minimum 13-foot vehicle headroom clearance.
14. In vinyl siding applications all exterior penetrations must be installed in plastic J-boxes.
15. Weep holes must be below finished slab elevation and not covered with sod, mulch, finished grade or landscaping.
16. All property entrances must have a monument sign with brick or stone column(s) and lighting.
17. All HVAC condensate drain lines may not drain on brick veneers or siding materials.
18. Exterior hallways, corridors or breezeways and interior hallways and corridors may not have a slope greater than 2% in any direction.
19. The Agency will not approve any four-story residential buildings without an elevator where parking is only provided on the 1st floor.

B. DOORS AND WINDOWS

1. All primary unit entries must either be within a breezeway or have a minimum roof covering of 3 feet deep by 5 feet wide, including a corresponding porch or concrete pad. All exterior outswing doors must have security (tamper proof) hinges for all hinges.
2. High durability, insulated doors (such as steel and fiberglass) are required at all exterior locations. Wood or wood composite doors will not be allowed in these locations. Single cylinder (lever) deadbolts and eye viewers are required on all main entry doors to residential units
3. Sliding doors and barn doors are not permitted. ~~The Agency will not allow the installation of sliding doors.~~
4. Exterior doors for Type A units must include spring hinges.
5. Insulated, double pane, vinyl windows meeting current North Carolina Model Energy Code and have at least a minimum UFACTOR ~~0.27~~0.30 and SHGC ~~0.30~~0.27 are required for new construction and rehabilitation projects (if replacing windows). Windows in bedrooms and living rooms of residential units must be operable and have screens and mini-blinds.
6. Windows must not be located over tub or shower units.
7. Install a continuous bead of silicone caulk behind all nail fins before installing new vinyl windows per manufacturer's specifications.
8. All doors used by residents in common areas must be a minimum 36 inches wide.
9. All unit entry doors in Type A and Type B units ~~that require through entry~~ must be a minimum 36 inches wide.

C. INTERIOR DESIGN AND MATERIALS

1. All residential units must 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)	250 square feet
Studio	375 square feet
Efficiency	450 square feet
1 Bedroom	660 square feet
2 Bedroom	900 square feet
3 Bedroom	1,100 square feet
4 Bedroom	1,250 square feet

   For additional requirements see the Definitions section at the end of this Appendix.
2. All units must have a separate dining area, except for SRO, Studio, and Efficiency units (see Definitions for description). Dining areas may not be positioned in kitchens within a 60-inch clear floor space of any cabinets or appliances. Dining areas may not be positioned close to hallway openings or where walking paths of travel is used by the residents.
3. Newly constructed residential units must have an exterior storage closet (interior common area only for congregate) with a minimum of 16 unobstructed square feet. Storage closets may not have any interior/finished dimension smaller than 36 inches in width or depth. Water heaters may not be installed in exterior storage closets.
4. Carpet and pad must meet FHA minimum standards. Carpets in Type A units must be glue-down type without padding.
5. Kitchens, dining areas, and entrance areas must have vinyl, VCT or other non-carpet flooring.
6. The minimum width of interior hallways in residential units is 42 inches.
7. 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. -Interior molded doors must have a structural core.
8. Interior doors must have a minimum of three (3) hinges.
9. Bi-fold, pocket, louvered, and by-pass doors are prohibited.
10. Residential floors and common tenant walls must have sound insulation batts.
11. All bedroom closets, interior storage rooms, coat closets, and laundry rooms/closets must have a 4-inch-tall by 8-inch-wide minimum pass-thru grille above doors for air circulation in those areas that do not get conditioned. Closets or rooms deeper than 48 inches must be served by heating and cooling systems with its own supply diffuser.
12. There must be a minimum of ¾ inch air space under all interior doors measured from finished floor for air circulation.
13. All interior and exterior mechanical and storage closets must have finished floor coverings. Interior closets must have either carpet, sheet vinyl or VCT flooring. Exterior storage closets may have sealed, painted concrete floors.
14. Signage for designated common areas and all units must be in Braille and meet ANSI A117.1, Section 703 standards.
15. 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.
16. One elevator must be provided for every 60 units on a per building basis with a minimum of 48 units in a building. The elevator(s) must be centrally located within a given building and sized to be 60 inches x 60 inches minimum. This provision does not apply to buildings with a breezeway.
17. All interior stair handrails must be mounted on a continuous wood backer board.
18. Accessible cabinets with removable fronts must be manufactured to be removable with only a screwdriver.

19. Shoe molding must be installed in areas where glue-down or laminate flooring is installed. Vinyl/rubber base can only be installed on walls with metal framing or masonry/block walls.
20. In all Type A units, a 67-inch minimum clear floor space for wheel chair turning radius is required into and throughout all usable areas of the kitchen, in accessible bathroom, in laundry rooms, and in closets that exceed 48 inches in depth.
21. All interior common areas, hallways, and enclosed corridors must be served by heating and cooling systems. All enclosed building stairwells must be served with heating and air conditioning.
22. Seal all penetrations through walls and ceiling with appropriate and like sealants to prevent moisture and air leakage.
23. All Type A handicap units must be proportionately distributed to all buildings and on all accessible floor levels.
24. Every part of residential units and in all rooms in congregate buildings must have finished walls, floors and ceilings. This includes storage rooms, mechanical closets, electrical rooms, elevator rooms, etc.
25. All HVAC mechanical equipment and water heaters must be installed in a dedicated mechanical closet with a 30-inch by 80-inch door. May not be installed in closets or rooms used for any other purpose.
26. Building breezeways, hallways or corridors may not have steps or inclined walking surfaces over 2% running slope or cross slope.

D. BEDROOMS

1. The primary bedroom must have at least 130 square feet, excluding the closet(s).
2. Secondary bedrooms must have at least 110 square feet, excluding the closet(s).
3. Every bedroom must have a closet with a shelf, closet rod and door. The average size of all bedroom closets in each unit type must be at least 7 linear feet.

E. BATHROOMS

1. The average size of all vanities in each unit type must be at least 36 inches. Type A units must have a code compliant removable vanity base below sink for storage. Floors and walls under vanities must be finished. Removal of bases must be done so with a screwdriver only. Vanities with removable fronts must be manufactured for that purpose. The Agency will not allow field altered vanities. All vanity countertops must be installed 33 inches minimum to 36 inches maximum. Wall hung sinks are not allowed in residential units.
2. Mirrors in bathrooms must be low enough to reach the counter backsplashes.
3. All full bathrooms must have an overhead ceiling light and exhaust fan on the same switch. Vanity lights must be provided and be on a separate switch.
4. 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. Bath fans may only be installed in ceilings.
5. All new construction and adaptive re-use projects must comply with QAP Section IV(F)(34) and Appendix B Section VII ~~VIII~~ regarding additional Type A bathrooms, including roll-in showers. All roll-in showers must have a collapsible water dam or beveled threshold that meets code. All roll-in showers must have a flat, usable minimum floor space of 36 inches by 60 inches and have an adjustable shower rod and weighted curtain installed before occupancy. Shower floor may not be used for code required 67-inch clear floor space in bathrooms.
6. Approaches to roll-in showers must be level, not sloped.
7. All domestic water line cut off valves must have metal handles, not plastic.

8. 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. 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.
9. Offset toilet flanges are prohibited.
10. Wood blocking must be installed for bathroom accessories, including towel bars, towel rings, toilet tissue holders, robe hooks, etc.
11. In Type A units, the 67 inches clear floor space may not include floor spaces under toilets or vanities. The 30 inches by 52 inches clear floor space beyond the swing of the door must be available in all bathrooms of Type A and Type B units.

F. KITCHENS

1. 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.
2. The minimum aisle width between cabinets and/or appliances is 42 inches.
3. 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 door must be 24 inches minimum width and depth. Shelving must be 20 inches deep minimum.
4. All residential units must have either a dry chemical fire extinguisher mounted and readily visible and accessible in every kitchen, including kitchen in community building if present, or an automatic fire suppression system installed in compliance with manufacturer specifications ~~canister~~ mounted in each range hood~~,~~ or heat limiting devices permanently installed on ranges that limit burners from reaching temperatures high enough to ignite grease, cloth, or plastic.

5. Each kitchen must have at the least the following minimum linear footage of countertop that are at or below 36 inches in height above finished floor, excluding the sink and range space:

SRO	4.5 linear feet
Studio	5.0 linear feet
Efficiency	5.0 linear feet
1 Bedroom	8.0 linear feet
2 Bedroom	10.0 linear feet
3 Bedroom	11.0 linear feet
4 Bedroom	13.0 linear feet

Bar tops may not be counted.

6. All community/multi-purpose rooms must have a full-sized refrigerator with a minimum 16.00 cubic feet of storage space.

7. All residential units must have a frost-free Energy Star rated refrigerator with a freezer compartment and factory provided ice maker. Ice maker boxes must be installed with cold water supply line in the wall and centered behind the refrigerator only. Ice maker must be connected and operational. For Type A units the refrigerator must be side by side or bottom freezer drawer type. Water and ice dispensers in the doors, if installed, may not have any controls over 48 inches above finished floor. Doors must open beyond 90 degrees to allow bin removal. The following are the minimum sizes:

0-2 Bedroom	14 cubic feet
3 Bedroom	16 cubic feet

4 Bedroom 18 cubic feet

8. All residential units must have an Energy Star rated dishwasher and be installed beside the kitchen sink. Dishwashers must be a minimum 24 inches wide.
9. All residential units must have a minimum 33 inches wide double bowl kitchen sink.
10. In Type A units:
    a. kitchen sinks must be rear-draining and have sink bottoms insulated if bottom of sink is at or below 29 inches above finished floor;
    b. pull-out worktops are prohibited;
    c. workstations must be installed beside the range with no wall to the left or right of the workstation;
    d. Removable fronts are required on accessible sink base cabinets and work station cabinets. Floors and walls under sink base and work station must be finished. Removal of door fronts must be done so with a screwdriver only. Cabinets with removable fronts must be manufactured for that purpose. The Agency will not allow field altered vanities. Cutting side panels, cabinet bottoms or backs and removal of plumbing pipes and/or electrical wires will not be allowed.
    e. the wall cabinet mounted over the work station must be 48 inches maximum above finished floor to the top of the bottom shelf; and
    f. both the range hood fan and light must have separate remote switches mounted over the work station.
    g. Pantry cabinets/closets must have 30 inches by~~x~~ 52 inches clear floor space centered on the door.
10. In Type A units and common areas, kitchen ranges with cooktop can be no higher than 34 inches above floor.
11. Anti-tip devices must be installed on all kitchen ranges and be securely fastened to the floor. Walls behind or directly beside ranges must be covered with a splash panel. The panel should span from the range to the hood and be plastic, laminate or aluminum. Ranges must be installed to fit flush to the wall. Range cord receptacles must be recessed in the wall behind the range.
12. Base and shoe molding must be installed behind all ranges and refrigerators. No exposed subfloor should be visible between flooring products and sides of cabinets and walls.
13. All kitchen cabinet countertops must be installed 33 inches minimum to 36 inches maximum. Kitchen countertops may not protrude into entrances into hallways.

G. LAUNDRY ROOM CLOSETS

1. If providing laundry hookups, a laundry room closet is required which must have a 36-inch minimum depth measured from back wall to back of closet doors, must accommodate a full sized (27 inches to 30 inches) clothes washer and dryer adjacent to each other, and cannot be designed for "stacked" appliances.
2. Dryer vent connection box must be galvanized metal and be 2 inches maximum above finished floor.
3. Washer water shutoff valves must be installed right side up with the hose connection below the shutoff handle.
4. In Type A ~~and Type B units~~, each clothes washer and dryer must be centered on a 30 inches ~~x~~ by 52 inches clear floor space for a parallel approach. In Type B units, each washer and dryer must be centered within a minimum 30 inches by 48 inches clear floor space to allow for a compliant parallel approach. The washer and dryer clear floor space areas may overlap. The clear floor spaces at each appliance may not use door openings or the ability to remove laundry room/closet doors in achieving the required parallel approach clear floor space. All electrical, plumbing, and venting rough-ins must be centered behind each washer and dryer.

5. Laundry rough-ins or equipment may not be installed in bedroom closets or in non-doored areas within a bathroom.

H. PROVISIONS FOR ALL SENIOR HOUSING

1. Provide loop or "D" shaped handles on cabinet doors and drawers.
2. Exhaust vents and lighting above ranges must be wired to remote switches for both the light and fan near the range in an accessible location.
3. Provide solid blocking at all toilets and tub/shower units for grab bar installation.
4. Provide a minimum 18-inch grab bar in all tub/shower units. The grab bar must be installed centered vertically at 48 inches A.F.F. on the wall opposite the controls.
5. Corridors in any common areas must have a continuous suitable handrail on both sides mounted 34 to 38 inches above finished floor, and be 1 ¼ to 1 ½ inches in diameter.
6. All doors leading to habitable rooms must have a minimum 3'-0" door and include lever handle hardware.
7. Hallways must have a minimum width of 42 inches.
8. The maximum threshold height at any entry door is ½ inch.
9. Any senior building with more than one floor must contain a minimum of one elevator.

I. PROVISIONS FOR SIGHT AND HEARING-IMPAIRED UNITS

Two percent of the total number of units constructed, or a minimum of one, must be able to be equipped for residents with sight and hearing impairments. These requirements include the following:

1. The unit(s) must be roughed in to allow for smoke alarms with strobe lights in every bedroom and~~, bathroom, and~~ living area. Bathrooms must have an audible horn/strobe that is connected to smoke alarms.
2. ~~The units must have a receptacle next to telephone jacks in units for future installation of TTY devices.~~Wiring type used for service to jacks is at the discretion of the developer and based on provider capabilities. Telecommunications and advanced communication services are required to be accessible or compatible with specialized or adaptive equipment such as TTYs, amplifiers, or braille/visual displays.
3. The unit must be Type A.
4. Lighted hard-wired doorbell button connected to a horn/ strobe alarm installed in each bathroom, bedroom, and common area is required for each sight and hearing-impaired unit.

The requirements of this provision can be satisfied by adding the elements described above to the additional Accessible units with roll-in showers required by QAP Section IV(F)(3) such that at least two percent (2%) of all units are properly equipped to serve persons with sight and or hearing impairments.

III. MECHANICAL, SITE AND INSULATION PROVISIONS

A. PLUMBING PROVISIONS

1. All rental units require at least one full bathroom.
2. Three- and four- bedroom units must include a minimum of two full bathrooms. Additionally, in units where step-in showers are provided, no more than 50 percent of the bathrooms within the unit may include a step-in shower.
3. All tubs and showers must have slip resistant floors. For new construction projects, all tubs and

showers must be one-piece and have a minimum outside dimension of 32 inches wide by 60 inches long ~~in width and 60 inches in length~~. ~~-~~All tubs and showers must have a minimum 30-year warranty and be rated for 300 lbs.

4. All electric water heaters, including common areas, must have a Uniform Energy Factor of 0.93 efficiency or an Energy Factor of at least 0.95 efficiency and be a minimum of 40 gallons (50-gallon minimum for 3 bedroom and larger). This cannot be achieved by using an insulated water heater jacket. Water heaters may not be installed under HVAC air handlers. They may be installed beside the air handler or in separate closet. All water heaters must be installed in a mechanical closet. Tankless water heaters allowed only in common areas.
5. In new construction and adaptive re-use projects, all water heater tanks must be placed in an overflow pan piped to the exterior of the building, regardless of location and floor level unless a primed p-trap is installed. The temperature and relief valve must also be piped to the exterior. 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 and be professionally finished/painted. Water heaters may not be installed in exterior storage closets or in unconditioned spaces.
6. A frost-proof exterior faucet must be installed on an exterior wall of the community/office building.
7. All tub/shower control knobs must be single lever handled and offset towards the front of the tub/shower.
8. Provide lever faucet controls for the kitchen and bathroom sinks.
9. All bathroom faucets, shower heads, and toilets must be EPA WaterSense rated.
10. Domestic water lines are not allowed in unconditioned spaces, including breezeways and community building attics.
11. In all Type A and Type B units, tubs and showers must have molded, built-in wood blocking installed on the bathing fixture.
12. In all Type A units, the toilets, tubs, and showers must have grab bars installed. See ANSI A117.1 for mounting heights and locations. The grab bar installed behind the toilet must be a minimum of 36 inches in length.
13. All plumbing pipes must be installed inside wall cavities. Connections to water and sewer lines may not be made through floors or cabinet bottoms.
14. Unit water shut-off valves must be in a wall box with cover/trim located 16 inches to 48 inches above floor and in a reachable location to the resident and be clearly marked with signage.
15. All wall-hung sinks must have solid blocking behind fixture and the fixture mounted to plywood rather than sheetrock. Wall hung sinks may not be installed in residential units.
16. Step-in showers (32 inches ~~x~~ by 60 inches minimum outside dimension) in senior properties may be installed in all ~~fifty percent (50%) of~~ residential units. For family properties, units having two full bathrooms may have one step-in shower while the other bathroom must have a tub/shower fixture. The above guidance does not apply to Type A units.
17. All buildings must have a minimum of two hose bibs on a house meter.

B. ELECTRICAL PROVISIONS

1. Provide overhead lighting and a ceiling fan in every bedroom and living room.~~.~~ If using ceiling fans with light kits, the fan and light must have separate switches.
2. Provide a minimum of one telephone jack and cable connection in the living room of every residential unit. Additional telephone jack and cable connection may be installed in other locations within the unit. Wiring type used for service to jacks is at the discretion of the developer and based on provider capabilities. Telecommunications and advanced communication services are required to be accessible or compatible with specialized or adaptive equipment such as TTYs, amplifiers, or

braille/visual displays.

1.3. Any walk-in closets must also have a switched overhead light. A walk-in closet is defined as any closet deeper than 36 inches from the back wall to the back of the closet door in the closed position.

2.4. Switches and thermostats must not be located more than 48 inches above finished floor height.

3.5. All data connections, telephone jacks, cable outlets, and electrical receptacles must be installed at a minimum height 15 inches above finished floor height. ~~Receptacles, telephone jacks, and cable jacks must not be located less than 16 inches above finished floor height.~~

4.6. Switched exterior lighting is required at each unit entry door for resident use on buildings with porches and breezeways.

5.7. Additional exterior light fixtures not specific to a unit must be wired to a "house" panel. The fixtures must be activated by a photo cell placed on the east or north side of the buildings.

6.8. All exterior stairways must have light fixtures wired to a "house" panel and activated by a photo cell placed on the east or north side of the buildings.

7.9. Projects with gas heating and/or appliances must provide a hard-wired carbon monoxide detector with a battery back-up in each residential unit.

8.10. All non-residential and residential spaces must have separate electrical systems.

9.11. Initially-installed bulbs in residential units and common areas must be compact fluorescent, LED or pin-based lighting in 80% of all fixtures.

~~10. All telephone lines must be hard-wired and toned and tagged properly to each unit.~~

12. All exterior storage closets must have a switched overhead light.

~~11. Each building must have a cable termination and demarcation box for cable vendor connection.~~

~~12. .~~

13. Light switches in bedrooms, bathrooms and closets must be installed within 15 inches maximum from latch side of corresponding door.

14. Receptables for refrigerators must be on a designated (home run) circuit to unit breaker panel. No other electrical devi~~s~~ces can be on this circuit.

15. Install all HVAC disconnect boxes on the exterior of the building and within 30 feet of the corresponding HVAC unit.

C. HEATING, VENTILATING AND AIR CONDITIONING PROVISIONS

1. All non-residential areas and residential units must have their own separate heating and air conditioning systems. HVAC equipment must have a minimum SEER2 15.0 performance rating.
2. Through the wall HVAC units are prohibited in all but Studio, Efficiency, and SRO units. They are allowed in laundry rooms and management offices where provided.
3. HVAC interior air handlers must be enclosed from return air grille to blower motor/filter.
4. The use of duct board is prohibited. Galvanized metal must be used for plenums and mixing boxes.
5. Connections in duct system must be sealed with mastic and fiberglass mesh.
6. All openings in duct work at registers and grilles must be covered after installation to keep out debris during construction.
7. Fresh air returns must be a minimum of 12 inches above the floor.
8. Electric mechanical condensate pumps are not allowed.
9. Supply ducts in unconditioned attics must be insulated with an R-8 or greater value.
10. Range hoods and micro-hoods must be vented to the exterior of the building with 6 inches minimum galvanized sheet metal using the shortest possible run.

11. All hub drains serving HVAC condensate lines must be piped to the outside. Piping to the sanitary sewer is not allowed unless a primed p-trap is installed.
12. Exterior exhaust vents must be mechanically secured to siding and/or brick veneers.
13. Venting for exhaust fans may not terminate in roof soffits.
14. Total dryer vent run may not exceed 35 feet, including deductions for elbows.
15. Dryer exhaust ducts may not be vented through the roof.
16. Clothes washer and dryer connections must be centered behind the appliance.
17. All units under 1,100 square feet must use minimum 1.5-ton electric heat pumps. All units 1,100 square feet or greater must use minimum 2-ton electric heat pumps.
18. HVAC systems must provide outdoor air into conditioned building common areas and apartment units to meet ASHRAE 62.2 per Energy Star Multifamily certification requirements. This must be done by introducing fresh air into return air duct at air handler. The fresh air must be filtered. The use of electrical control boxes with mechanical dampers that limits humidity and temperature extremes must be used. Fresh air ducting must use insulated galvanized piping.
19. All exterior heat pumps must be wired to an exterior disconnect box within 50 feet of the condenser.
~~18.~~20. Mini-split systems and PTAC may only be used in building stairwells or small community spaces. They may not be used in residential units or in corridors/hallways or large common area spaces.

D. BUILDING ENVELOPE AND INSULATION

1. Framing must provide for complete building insulation including the use of insulated headers on all exterior walls, framing roofs, and ceilings to allow the full depth of ceiling insulation to extend over the top plate of the exterior walls of the building, and framing all corners and wall intersections to allow for insulation.
2. Seal at doors, windows, plumbing and electrical penetrations to prevent moisture and air leakage.

E. SITEWORK AND LANDSCAPING

1. Provide positive drainage at all driveways, parking areas, ramps, walkways and dumpster pads to prevent standing water.
2. No sidewalks may exceed a 2% cross slope regardless of where located. Provide a non-skid finish to all walkways.
3. Sidewalks and accessible routes adjacent to accessible parking must allow for a 2.5 feet vehicle overhang. An accessible sidewalk/route must be a minimum 48 inches wide.
4. Switchbacks or ramps are not permitted from handicap parking spaces or access aisles to building entrance in new construction projects.
5. All water from roof and gutter system must be piped away from buildings and discharged no less than 6 feet from building foundation.
6. Lots must be graded so as to drain surface water away from foundation walls. The grade away from foundation walls must fall a minimum of 6 inches within the first 10 feet.
7. No part of the disturbed site may be left uncovered or unstabilized once construction is complete.
8. Minimum landscaping budgets of $300 per residential unit are required. This allowance is for plants and trees only and may not be used for fine grading, seeding and straw or sod.
9. Sitework changes after application award are not permitted without Agency approval.
10. All new construction and rehab properties must have lighted entry sign with brick or stone column(s)

11. Site lighting poles must be installed in landscaped areas instead of parking spaces. Site lighting must be provided behind buildings and near common use amenities for safety.
12. Pedestrian and required accessible routes throughout the residential property and common areas must be on concrete sidewalks.
13. Marked crosswalks must be installed when crossing vehicular drives.

F. RADON VENTILATION

Passive, "stack effect" radon ventilation systems are required for all new construction projects in Zone 1 and 2 counties. For a map of county zones visit https://www.epa.gov/sites/default/files/2014-08/documents/north_carolina.pdf. These systems reduce soil gas entry into the buildings by venting the gases to the outdoors and must include the following components.

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 the apartment, 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.

Check applicable federal, state, and local building codes to see if more stringent codes apply.

IV. COMMON AREA AND SITE AMENITY PROVISIONS

All common use areas must be fully accessible to those with disabilities in compliance with all applicable State and Federal laws and regulations.

A. REQUIRED SITE AMENITIES

All new construction projects are required to include a minimum of six (6) tenant amenities. There are three (3) amenities that are mandatory and the additional three (3) can be selected from the list below. The required amenities vary by project type:

Family	Senior
Covered Picnic Area (150 sq. ft. with 2 tables and grill)	Indoor or Outdoor Sitting Areas (minimum of 3 locations)

Multi-Purpose Room (250 sq. ft.)	Multi-Purpose Room (250 sq. ft.)
Playground w/four play stations minimum	~~Gazebo or~~ Screened Porch or Covered Picnic Area (150 sq. ft. with 2 tables and grill)

In addition to the required amenities, projects must also include at least three (3) of the following additional amenities and be on an accessible route:

- covered drive-thru or drop-off at entry
- covered patio with seating (150 sq. ft.) Senior projects only.
- covered picnic area with two tables and one grille (150 sq. ft.). One table must be ADA approved.
- outdoor sitting areas with benches (minimum of 3 locations)
- exercise room (must include new equipment)
- ~~raised bed garden plots (50 sq. ft. per plot, 24 inches deep, one plot per 10 residents, senior projects only) served by a water stand pipe for watering plants~~
- gazebo with permanent seating (100 sq. ft.; door must accommodate a 36-inch minimum clear opening).
- resident computer center (minimum of 2 computers)
- sunroom with chairs (150 sq. ft.).
- screened porch (150 sq. ft.)
- tot lot w/minimum four play stations or activities (family projects only)
- walking trails (4 ft. wide paved and continuous around property)

Dimensions listed are the minimum required. Amenities must be located on the project site. Projects with multiple sites separated by a road, street, stream, or other similar property must have dumpsters and mailboxes at each site. Swimming pools are prohibited for 9% credit projects.

B. PLAYGROUND AREAS

1. Wherever possible tot lots and playgrounds must be located away from areas of frequent automobile traffic and situated so that the play area is visible from the office and maximum number of residential units.
2. A bench must be provided at playgrounds to allow a child's supervisor to sit. The bench must be anchored permanently, weather resistant and have a back.
3. Playground surface conditions and materials must meet certain guidelines and standards which include:
   - ASTM F1951 (Specification for Determination of Accessibility of Surface Systems)
   - ASTM F1292 (Specification for Impact Determination)
   - ASTM F1487 (Standard Consumer Safety Performance Specification)
   - ASTM F2020 (Standard Specification for Engineered Wood Fiber
   - ASTM F2479 (Specification Guide for Products and Installation of Poured-In-Place Surfaces
4. A letter from the playground floor material provider stating the material meets or exceeds the above ASTM requirements is required. A certificate from a third-party firm licensed to perform playground surface testing stating the installation of approved floor coverings was installed per manufacturer's requirements and that the finished floor surface(s) meet the above ASTM standards is also required.
5. All playgrounds and tot lots must each contain at least four play stations/activities.

C. POSTAL FACILITIES

1. Postal facilities must be located adjacent to available parking and sited such that tenants will not

obstruct traffic while collecting mail.

2. On-site postal facilities must have a roof covering which offers residents ample protection from the rain while gathering mail.
3. Postal facilities must have adequate lighting functioning from dusk to dawn.
4. Mailboxes may not be installed higher than 48 inches above finished floor and must be centered on 30 inches by~~x~~ 52 inches clear floor space for a parallel approach.
5. All mail collection areas must have a minimum 67-inch clear floor space for wheel chair turning radius.

D. LAUNDRY FACILITIES

1. Laundry facilities are required for all projects.
2. There must be a minimum of one washer and one dryer per twelve (12) residential units if washer/dryer hookups are not available in each unit. If hookups are available in each unit, there must be a minimum of one washer and one dryer per twenty-five (25) units.
3. The entrance must have a minimum roof covering of 20 square feet.
4. A "clothes folding" table or countertop must be installed. The working surface must be 30 to 34 inches above the floor~~,~~ and must provide a~~have~~ minimum of 27 inches ~~a 27 inches~~ high clear knee space below and 48 inches in length~~long minimum~~. The folding table must be centered on ~~a~~ 30 inches by 52-inches clear floor space.
5. The primary entrance door to the laundry must be of solid construction and include a full height tempered glassed panel to allow residents a view of the outside/inside.
6. 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.
7. The laundry room must have adequate entrance lighting functioning from dusk to dawn.
8. If the project has only one laundry facility, it must be adjacent to the community building/office (if provided) to allow easy access and provide a handicap parking space(s).
9. One washer and one dryer must be front loading and usable by residents with mobility impairments (front loading), including at least a 30-inch by 52-inch clear floor space in front of each for a parallel approach.
10. Each common area laundry room must have one accessible clothes washer and dryer per three of each installed.

E. COMMUNITY / OFFICE SPACES

1. All projects must have an office on site of at least 200 square feet (inclusive of handicapped toilet facility) and a maintenance room of at least 150 square feet. This includes subsequent phases of a multi-phase development.
2. The community building/space must contain both a handicapped toilet facility and a kitchen area that includes a refrigerator and sink.
3. The community building/space, including toilet facilities and kitchenette but excluding maintenance room and site office, must contain a minimum of seven (7) square feet for each residential unit.
4. The office must be situated as to allow the site manager a prominent view of the residential units, playground, entrances/exits, and vehicular traffic.
5. The office must be clearly marked as such by exterior signage, placed at a visible location close to the building. The signage must use contrasting colors and large letters and numbers.

F. PARKING

~~1. Family projects require a minimum of 1.5075 parking spaces per unit.~~

~~Senior projects require a minimum of one parking space per unit.~~

~~2. Projects located within counties designated as part of the Metro region may be considered for a waiver of the Agency minimum parking requirements as described in IV(F)(4).~~

~~3. If local guidelines mandate parking to less than the Agency requires or if the site limits parking to less than the Agency requires, the number of parking spaces required by the Agency may be reduced upon receiving Agency approval prior to the preliminary application deadline. If the local parking requirements are not known until zoning approval, the Applicant must seek Agency approval prior to the full application deadline.~~

1. Consistent with recently enacted state law, minimum parking requirements have been eliminated. However, Applicants are still responsible for ensuring that sufficient parking is provided to accommodate the needs of residents and to support the functionality of the community. The Agency expects Applicants to assess and address parking demands as part of their project planning and design. The Agency may require modifications to the number or configuration of parking spaces as part of its application review process.

~~4.~~2. There must be at least one handicap parking space for each designated Type A unit and must be the nearest available parking space to the unit. All handicap parking spaces and associated aisles must be concrete.

~~5.~~3. 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.

All non-handicap parking spaces must be an asphalt or concrete solid surface with a minimum dimension of 8 feet wide and 18 feet long. ~~Compact parking spaces may be included in addition to those required to meet Agency requirements but will not count towards the minimum required in 1 or 2 above.~~

~~The Agency does not prohibit the installation of electric vehicle (EV) parking spaces. However, EV designated spaces shall not be counted toward meeting the minimum required parking spaces for any project.~~

G. REFUSE COLLECTION AREAS

1. Fencing consistent with the appearance of the residential buildings must screen the collection area. The fencing must be made of PVC or treated lumber and constructed for permanent use.
2. The pad for the refuse collection area, including the approach area, must be concrete (not asphalt). The approach area must be a minimum 18 feet in length.
3. The refuse collection area(s) may not be at the entrances or exits of the project and should be reasonably located amongst all buildings.
4. A minimum of two painted pipe bollards must be installed behind dumpsters. Pedestrian paths of accessible travel must be marked/identified (painted in yellow or white) on dumpster slab surfaces.

V. ADDITIONAL PROVISIONS FOR REHABILITATION OF EXISTING HOUSING

The following requirements apply to rehabilitation of existing units. Other than as described below, existing apartments do not need to be physically altered to meet new construction standards.

A. Design documents must include a site plan and show all proposed changes to existing and proposed buildings, parking, utilities, and landscaping. An architect or engineer must prepare the design drawings. A unit matrix is required with the scope of work submission, see Appendix I for Agency approved sample format.

B. Any replacement of existing materials or components must comply with the design standards for new construction. In addition to needs identified by the Agency, the rehabilitation scope of work must include/address the following:

Unit Interiors

1. All mechanical and storage closets must have painted, moisture resistant drywall and finished flooring.
2. All bi-fold and accordion doors must be replaced with hinged doors.
3. Shoe molding must be installed in areas where glue down or laminate flooring is/was installed.
4. Splash panels must be installed behind all ranges.
5. Stair handrails must have continuous wood backer board.
6. Anti-tip devices secured to the floor must be installed under all ranges.
7. Clothes washer and dryer connections must be centered behind the appliance.
8. Interior painting must include the entire unit.

Plumbing

1. All water heaters must be in an overflow pan and piped to the outside (where possible).
2. All units must have individual water shut off valves in the unit.
3. Water heaters under kitchen countertops must be relocated.
4. All polybutylene ("Quest") piping must be replaced.
5. All original cast iron p-traps must be replaced.
6. Tub/shower valves over twenty-five years old must be replaced.

Electrical

1. All receptacles, switches and cover plates must be replaced.
2. All units must have looped smoke alarms.
3. In bathrooms, overhead ceiling light must be switched with the exhaust fan and the vanity light wired to a separate switch. If the vanity light is the only light source, it then must be switched to the exhaust fan.
4. Ceiling fans with lights must be installed in all living rooms and bedrooms. Fan and light must be wired to a separate switch.
5. Cable and telephone jacks must be installed in all living rooms and bedrooms. Wiring type used for service to jacks is at the discretion of the developer and based on provider capabilities. Telecommunications and advanced communication services are required to be accessible or compatible with specialized or adaptive equipment such as TTYs, amplifiers, or braille/visual displays. All data connections, telephone jacks, cable outlets, and electrical receptacles must be installed at a minimum height 15 inches above finished floor height.

Heating and Air

1. If range hoods were previously vented to the outside, the replacement hoods must be similar.
2. Hard duct all new and existing bathroom exhaust fans where possible (in attics).
3. Existing HVAC air handlers must have a secondary condensate overflow line or cutoff switch.
4. Clothes dryer venting must be hard ducted to the exterior and concealed in a wall.
5. Replacement air handlers must have enclosed air returns where possible. Top distribution collars must be new.
6. All outdoor HVAC condensers must have A2L type ~~410A~~ refrigerant and properly sized line sets.

Site Work

1. Existing site lighting must be adequate and functioning.
2. Property entrance must have a monument sign with brick or stone column(s).
3. Sewer lines must be scoped and repaired/replaced as needed.
4. Painted pipe bollards must be installed behind all dumpsters.

Miscellaneous

1. Attic insulation must meet R-30 minimum value.
2. An automatic accessible door opener is required for the primary entrance into and out of senior congregate buildings.
3. All Type A accessible units must be brought to current building standards to the greatest extent feasible.
4. Existing fire walls in attics between units must be intact and solid.
5. Attic access panels must be lockable with keys available.

C. Applicants must submit the following:

1. For properties built prior to 1978, 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. Professionals licensed to do hazardous materials testing must perform the testing. A report written by an architect, building contractor or developer will not suffice. A plan and projected costs for removal of hazardous materials must also be included.
2. A report assessing the structural integrity of the building(s) being renovated from an architect or engineer. Report must be dated no more than six (6) months from the full application deadline.
3. A current termite inspection report. Report must be dated no more than six (6) months from the full application deadline.

D. Demonstrate replacement reserve is adequate to maintain and replace any existing systems and conditions not being replaced or addressed during rehabilitation.

VI. ADDITIONAL PROVISIONS 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 the Agency prior to installation of affected systems.

B. Windows: Retain original window sashes, frames, and trim where possible. All original sashes 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, install replacement sashes be installed into existing frames. In all cases, windows must be finished with a complete coating of paint.

C. Floors: All wood flooring is to be restored as closely to original condition as possible. 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 1/8 inch, the gaps must be filled with an appropriate filler material prior to the application of final finish.

D. Applicants must submit the following:

1. For structures built prior to 1978, 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. Professionals licensed to do hazardous materials testing must perform the testing. A report written by an architect or building contractor or developer will not suffice. A plan and projected costs for removal of hazardous materials must also be included.
2. A report assessing the structural integrity of the building(s) being renovated from an architect or engineer. Report must be dated no more than six (6) months from the full application deadline.
3. A current termite inspection report. Report must be dated no more than six (6) months from the full application deadline.

VII. QUALIFIED ALLOCATION PLAN

Five percent (5%) of all units in new construction and adaptive re-use projects must:

1. be a Type A unit according to the standards set forth in Chapter 11 of the North Carolina State Building Code and ANSI A117.1, Section 1003,
2. have at least one bathroom with a toilet located in a five foot by five foot clear floor space (may overlap with the 67 inches ~~five foot~~ turning diameter described in ANSI A117.1, with no overlapping elements or fixtures; the toilet must be positioned in a corner with the centerline of the toilet bowl 16 to 18 inches from the sidewall,
3. have at least one bathroom with a 36-inch by 60-inch roll-in shower as described in Appendix B. Such showers must also meet the requirements for accessible controls and clear floor spaces as required by ANSI A117.1, Section 103, and
4. have a minimum 67-inch turning radius for clear floor space throughout the kitchen floor area with no overlapping elements or fixtures.

At least one unit in each class of Type A units must meet the above requirements. Unit classes are measured by the number of bedrooms. THESE UNITS ARE IN ADDITION TO MOBILITY IMPAIRED UNITS REQUIRED BY FEDERAL AND STATE LAW (INCLUDING BUILDING CODES). If laws or codes do not require mobility impaired units for a project, a total of five percent (5%) of the units must be Type A units with tub/shower bathing fixtures and an additional five percent (5%) with roll-in showers. When calculating the 5% you must round up to a whole number. In congregate buildings served by an elevator, these units must be on each residential floor. All Type A units must be proportionately distributed to all buildings and on all accessible floor levels.

Within all Type A bathrooms, provide an equal distribution of bathing fixtures, with fifty percent designated as tub/shower units and fifty percent as roll-in showers, allocated proportionally across each bedroom type. Include an example

DEFINITIONS

Efficiency Apartment: A unit with a minimum of 450 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 a 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.

One Bedroom Apartment: A unit with a minimum of 660 heated square feet (assuming new construction or adaptive re-use) containing at least four separate rooms including a living/dining room, full kitchen, a bedroom and full bathroom.

Four Bedroom Apartment: A unit with a minimum of 1,250 heated square feet (assuming new construction or adaptive re-use) containing at least eight separate rooms including a living/dining room, full kitchen, four bedrooms and two full bathrooms containing a tub/shower combination unit.

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.

Studio Apartment: A unit with a minimum of 375 heated square feet (assuming new construction or adaptive re-use) in which the bedroom, living area and full kitchen are contained in the same room. Each unit has components of a full bathroom (bathing fixture, lavatory, toilet) and full kitchen (stove top/oven, sink, full size refrigerator).

Three Bedroom Apartment: A unit with a minimum of 1,100 heated square feet (assuming new construction or adaptive re-use) containing at least seven separate rooms including a living/dining room, full kitchen, three bedrooms and 1.75 bathrooms, with each unit including a minimum of one bath with a full tub and one bath with an upright shower stall.

Two Bedroom Apartment: A unit with a minimum of 900 heated square feet (assuming new construction or adaptive re-use) containing at least five separate rooms including a living/dining room, full kitchen, two bedrooms and full bathroom.