APPENDIX B -2

REHABILITATION DEVELOPMENT DESIGN CRITERIA

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The terms of these development design criteria are the minimum requirements for any project awarded LIHTCs. Required documents must be prepared by engineers and architects licensed to do business in South Carolina.

Owners must submit a full size (24" x 36") electronic version of the final plans and specifications and receive acceptance before commencing site work or construction. At all times after award, the owner is responsible for promptly informing the Authority of any changes or alterations which deviate from the final plans and specifications accepted by the Authority. The owners must not take action on any material change, the site layout, floor plan, elevations or amenities without prior authorization from the Authority. This includes changes required by local governments to receive building permits.

Nothing in this Appendix shall be construed to modify or eliminate any legally imposed requirement, including those governing accessibility.

Waiver requests for individual Development Design Criteria (DDC) may be submitted to taxcreditquestions@schouisng.com. Requests must document substantial infeasibility and propose alternative solutions to achieve the intent of the specific DDC.

I. DESIGN DOCUMENT STANDARDS

A. Code Compliance

Construction must be in compliance with all federal, state, county, city, local and governing jurisdictions codes, where applicable, including but not limited to:

1. Fair Housing Act.
2. Section 504.
3. HUD Housing Quality Standards (HQS).
4. HUD Minimum Property Standards (MPS).
5. HUD National Standards for the Physical Inspection of Real Easte (NSPIRE)

B. Application Plan Requirements

Plans must be submitted electronically with the application.

1. Site & Civil plans, four pages minimum, using a scale of 1" = 30' or 40' with a north arrow that include:
   a. Existing Layout and proposed changes.
   b. Vicinity map.
   c. Street name(s) where site access is made.
   d. Site acreage with Tax map #s.
   e. Site features with detailed drawings such as community building, playground, picnic shelter, gazebo, walking trails, refuse collection area, postal facilities and site entrance signage.
   f. Roads and parking areas with parking spaces clearly depicted and detailed drawings of parking space design.
   g. Storm water detention, detention pond, underground detention, storm water/detention easement.

C. Final Plan and Specification Requirements

No later than twelve (12) months after the Reservation Date for 9% developments or sixty (60) days after closing for tax-exempt bonds developments, all awarded projects must submit a full set of completed Plans and~~,~~ Specifications ~~and Geotechnical Soil Reports~~ that include all application plan requirements, any changes from the application plan submittal, and the following:

1. Plans must include and incorporate all Development Design Criteria into the plans.
2. The Development Design Criteria must be bound within the project specifications.
3. Accessibility reports and/or reviews and checklist must be signed and/or sealed by the Engineer or Consultant that completed the plan, design, review and checklist.
4. All plans must be 100% complete, sealed by the appropriate professional and marked released for construction. The Landscaping and Development Site Lighting plans are to be submitted with the 50% inspection request.
5. Full parcel survey; must include adjoining parcel(s) if functionally dependent.
6. Site, Civil, Architectural and Structural plans.
    a. Must incorporate all Geotechnical recommendations included in the soil report(s).
    b. Provide complete sections and details.
    c. Window and Door Schedules must be complete.
    d. Details and Sections pages for all site features and amenities.
7. Mechanicals (HVAC, Plumbing and Electrical) and Fire Sprinkler must be completed by engineers and sealed.
    a. Plumbing drawings must include waste and domestic water riser diagrams.
    b. All electrical, plumbing and HVAC fixture schedules must be complete.
    c. HVAC, manuals J, S & D.
    d. Natural air calculations.
    e. Outside air calculations.
8. Landscaping Plans must follow any applicable landscape municipal ordinance and include:
    a. Existing plantings.
    b. Proposed plantings.
    c. Use of native drought resistance plants.
    d. There must be 20’ minimum of sod or planting bed extending out from each exterior building wall. A lesser amount will be permitted if sod extends from building wall to property line or road.
    e. An Irrigation/sprinkler system serving all landscaped areas.
    f. All disturbed areas not sodded must be seeded.
9. Development Site Lighting plans with representative photometrics shown on plan reflecting an average footcandles of 1.0 for all development parking, sidewalks and exterior common areas.

10. Site and Civil plans using a scale of 1" = 30' or 40'.
11. Building plans using a scale of 1/8" or ¼" = 1'.
12. Floor Plans using a scale of 1/4" = 1' scale.
13. Elevations and Sections using a scale of 1/8' or ¼" = 1'.
14. Identify any hazardous materials/conditions such as asbestos, lead paint, radon, recalled drywall, mold on site and /or in buildings and contaminated soils. Address or abate all hazardous material per applicable regulations. Submission of abatement certification to SC Housing may be required.

~~14.~~15. Geotechnical Soil Report is required if the development plans any new construction.

II. ACCESSIBILITY

Developments must meet all federal, state and local accessibility standards, as well as all Authority accessibility requirements as applicable by the governing regulations and this appendix.

All the following accessibility criteria must be in place upon completion of the rehabilitation including but not limited to kitchen and closet shelving, grab bars, and appliances. The ability of the applicant to adapt a unit to the required standard upon request is not sufficient to meet this requirement.

A. Accessibility Consultant

All owners must contract directly with a third-party Qualified Accessibility Consultant.

The contracted Accessibility Consultant must complete Exhibit AA, Accessibility Consultant Qualifications Statement;

The consultant must provide the following for each project:

1. A pre-rehabilitation plan and specification review to determine that the proposed property will identify and address all applicable accessibility requirements. A report must be provided that includes all initial comments from the consultant and any documents related to resolution of identified accessibility issues. The Consultant report must be included with the initial construction documents submitted to the Authority.
2. Provide at least one training session prior to the start of the rehabilitation to the Architect, General Contractor, Job Superintendent, and a representative of every subcontractor group that will affect accessibility (grading, concrete, framing, electrical, plumbing, sheetrock, and cabinetry) regarding accessibility requirements. The training session may be virtual or in person. A written description of the training session and documentation of the event including a list of attendees must be provided upon request.
3. Physical inspections of the construction during the rehab. The Authority must receive a copy of the consultant's reports and documentation that all issues have been addressed.
4. The project team must discuss the scope of the specific project with the Accessibility Consultant to determine the total required number of site visits/reviews. The first inspection must occur prior to installation of drywall to verify utility rough ins and blocking.
5. A final inspection of the property after construction completion to determine that the property was constructed in accordance with all accessibility requirements. The Authority must receive a copy of the consultant's final report and documentation that all issues were addressed prior to cost certification submission.

B. Modification Requirements

1. Quantity of Accessible Dwelling Units:

   a. **Mobility Unit/Accessible Unit**: At least 5% of the total units (but no less than 1 unit) must be designed for people with mobility impairments.
      i. Where federal regulations apply such as HUD or USDA Section 504 regulations which require 5% mobility units designed to the UFAS standard, those units will count to meet this requirement with inclusion of the additional Authority accessible design requirements listed below.
      ii. For properties that are not otherwise required by a regulation to provide 5% mobility units then 5% of the units or at least 1 unit will be designed as ANSI A117.1-2017 Type A units with inclusion of the additional Authority accessible design requirements listed below.

   b. Sight/Hearing(sensory) Units: At least an additional 2% of the total units (but no less than 1) must be equipped for hearing and sight-impaired tenants. Must be in addition to and not part of the 5% mobility units.
      i. Units must comply with the ICC/ANSI standards for audio/visual notification related to fire alarms at the primary unit entrance.
      ii. Units must be roughed in to allow for smoke alarms with strobe lights in every bedroom, hallway outside of the bathroom and living area.
      iii. Units must have a lighted doorbell button connected to an audible and strobe alarm installed in each bathroom, bedroom and common area.

2. Mobility and Sight/Hearing Dwelling Design Requirements:

   Applicable in addition to all other minimum accessibility requirements.

   a. All Mobility and Sight/Hearing units must have a wireless or hard-wired emergency alert system installed, located in every bedroom and bathroom that either triggers an audible and visual notification outside of the dwelling unit or notifies the staff and 911 during work hours and 911 after work hours. All call for aid devices must be installed beside or below ceiling light switches in bedrooms and bathrooms.
   b. All entry and interior doors of mobility units must meet the accessible criteria for doors by the applicable standard.
   c. Windows and blinds in mobility units must comply with the ANSI A117.1-2017 provisions for Type A dwelling units found at 1103.13.
   d. Any cabinets that have removable bases/fronts for the provision of required knee space in accessible bathrooms or kitchens must be manufactured so that they are removable with only a screwdriver and no structure, plumbing or wiring must be modified for the base to be removed.
   e. Pipe protection must be installed at construction for any sink designed for forward approach with or without a removable base cabinet.
   f. All finishes under the sinks with or without removable bases must be complete including, flooring, base trim and paint at construction completion.
   g. Carpet used in Mobility units must be glue-down type without padding.
   h. Ensure mounting heights of covered controls in mobility units comply with the applicable accessible standard based on approach and reach over obstructions.
   i. Must provide 36x60 min usable floor space for roll in showers in mobility units.
   j. Mobility units with more than 1 bathroom must have at least one bathroom with a roll in shower.

k. Equipment for sight/hearing units may be stored on site and installed when requested by a tenant occupying a unit designed for sight/hearing features.

3. Public and Common Use Areas:
    a. An accessible route with compliant slopes must be provided throughout the entire site to connect all mobility and/or Type B/FHA units to common spaces, parking, public transportation and public streets or sidewalks.
    b. Accessible ramps throughout the property including ramps to designated mobility units must meet the following requirements.
        a. Must be constructed from one of the following:
            i. Steel (field painted) and/or concrete
            ii. Concrete slab with brick ribbon and sidewalls
            iii. Aluminum ramp system
        b. Handrails and pickets must be constructed from steel (field painted) or aluminum.
    c. In community laundry facilities a minimum of 1 washer and dryer must be accessible, and the laundry must include an accessible work surface/folding station.
    d. All doors in public and common use areas must be accessible and meet the required criteria of the applicable accessible code.
    e. Exterior entry doors at common area buildings must include an accessible automatic door opener.
    f. Playgrounds (family developments only) must be located on an accessible route and must comply with ANSI A117.1-2017 section 1008.
    g. Ensure mounting heights of all covered controls in common use areas comply with applicable reach heights bases on approach and reach over obstructions.
    h. Signage in common spaces and for all units must meet ANSI criteria and include Braille.
    i. Mailboxes serving mobility or Type B units must be accessible.
    j. The leasing office is a place of public accommodation and must comply with 2010 ADA design standards. At least one accessible parking space at the office must be van-accessible.
    k. At least one accessible parking space must be provided for each designated mobility unit, and it must be on the shortest path to the covered unit.
        a. All accessible parking spaces and access aisles must be concrete.
        b. Built up curb ramps that protrude into the parking lot are prohibited.
        c. Access aisles must be separated from and not pass through vehicular paths of travel.
    l. The property sign must include the international symbol for accessibility and the equal housing opportunity logo.
    m. Dumpsters/trash compactors must be connected to covered units via an accessible route and have accessible parking located in proximity to the enclosure. The access aisle for parking at the dumpster must connect to the accessible route to the enclosure.
    n. The accessible path within the dumpster enclosure must be clearly defined and marked in yellow or white paint.
    o. Painted bollards must be placed around the accessible dumpster in a manner to prevent the dumpster from encroaching on the accessible path and access to the dumpster.
    p. The dumpster pad and the approach must be constructed of concrete and have slopes not exceeding 2% along the accessible route.

III. MANDATORY REHABILITATION CRITERIA

A. Applicability

The following requirements apply to rehabilitation or alteration of existing buildings, facilities and amenities. The design and construction of any new amenities or buildings must meet the design criteria in Appendix B for new construction.

B. Required Upgrades/Renovations

Unless otherwise indicated in the Physical Needs Assessment (PNA), the scope of work for all rehabilitation developments must include upgrades to the following items as further defined below:

1. GENERAL EXTERIOR SITE WORK

a. Lots must be graded so surface water drains away from foundation walls and areas where adjoining grades are higher than finished floor of buildings. The final grade away from foundation walls must fall a minimum of ≥ 0.5 inches per foot away from building for ≥ 10ft.

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

   Utilize yard drains if needed, piped to storm water system or to daylight.

c. All retention and/or detention ponds must be fenced. The storm water retention/detention basin design, maintenance and management shall be the sole responsibility of the owner/developer and shall be in strict accordance with all applicable federal, state, local and environmental regulations governing storm water retention/detention basins.

d. Remove all dead bushes, trees, tree-stumps, and their above ground roots. Remove all portions of tree branches that overhang roofs, contact building faces or obstruct sight lighting. Remove trees with root structures that may comprise building foundations.

e. Provide foundation plantings in front of all buildings and at building entrances. New plantings shall comply with new construction requirements.

f. No part of the disturbed site may be left uncovered or un-stabilized once rehabilitation is complete.

g. Burying construction waste on-site is prohibited.

h. Projects located in Radon Zone 1 or Zone 2 must provide testing results pre-rehab. If the testing shows results over 4 pCi/L, mitigation must be included in the scope of work.

2. SITE LIGHTING

Site lighting is required for all parking, sidewalks, buildings and site amenities and should be directed down to diminish nuisance light in residential units. Lighting plans to be completed using photometrics software reflecting an average footcandle of 1.0 for all development parking, sidewalks, and exterior common areas.

3. BUILDING EXTERIOR

a. All materials must be installed using standard construction methods and means, and result in the issuance of written manufacturer's warranty and guarantees. No exterior wood finishes may be used. Wood as exterior cladding on the vertical face of the building is prohibited.

b. Vinyl siding must be replaced if:
    i. Remaining useful life per the PNA is less than 10 years,
    ii. Existing vinyl siding is not equal to 0.44 thickness, or
    iii. Shows signs of fading, damage or discoloration and where repair of any areas with new siding would show evidence of discoloration.
c. All exterior material not being replaced must be cleaned.
d. Any replacement exterior building coverings must be high-quality durable low maintenance materials, warranted for at least 30 years and be installed per manufacturer's requirements. Acceptable exterior coverings are brick, stone (natural or manufactured), fiber cement siding (5/16" thickness or greater), vinyl siding (.044 thickness or greater), vinyl soffit (.040 thickness or greater), PVC or vinyl composite trim board, PVC coated trim coil and Portland cement stucco.
e. Where brick exterior do does not extend to an eave line, aluminum flashing shall be installed that extends a minimum of 5" under/behind the above exterior wall surface material and over the outer edge of the brick to prevent water penetration.
f. Weep holes must be below finished slab elevation and not covered by finished grade or landscaping.
g. Siding applications require all exterior penetrations to be installed on mounting blocks.
h. Metal z-flashings must be installed behind, on top of and below all band boards and be of appropriate size for materials being flashed.
i. Metal flashings must be installed behind, on top of and below all veneer material changes.
j. Metal flashing or 20 mil polyethylene when used in conjunction with a self-adhering polyethylene laminate flashing, must be installed above all exterior door and window units.
k. Columns must be sized and loaded properly and consist of fiberglass, polyurethane or aluminum. Must be installed with stand-offs, bases, caps and vents per manufacturer's recommendations. 4X4, 4X6, 6X6 etc. treated wood post wrapped with coil stock are prohibited. Steel post and treated post may be utilized if built up with cement trims.
l. Exterior steps at porches and patios will be constructed of brick/stone foundation veneers with concrete deck/slab.
m. Multi story second, third, or fourth floor elevated porch, patio or breezeway may be constructed utilizing concrete slabs, tongue and groove composite or 5/4" composite materials for the deck. These must be constructed in such a manner that no wood is exposed. Concealment of wood shall be with composite materials such as PVC coated coil stock, vinyl 1x's composite 1x's, and fiber cement trims.
n. Handrails and/or guard rail systems used at steps, porches, and patios shall be code compliant systems made of composite materials such as vinyl, fiberglass, steel (field painted) or aluminum.
o. Public use stairway components, such as stringers, treads, and solid closed risers must be constructed from steel (primed and field painted) and/or concrete. Handrails and pickets must be constructed from steel (primed and field painted) or aluminum and be completely under roof cover.
p. 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 current ANSI standards.

4. ROOFING AND GUTTERS

All roofing is to be installed in accordance with the current IBC / IRC standards and the Authority standards listed below.

Asphalt Shingles

a. Roof pitch to be a minimum of 4/12.
b. Architectural (dimensional) anti-fungal shingles must be used and:
    i. Must be high quality and durable.
    ii. Must be installed per manufacturers' requirements to achieve at least a 30-year warranty.
    iii. The following must be used underlayment, ice and water shield, leak barriers, starter strip shingles and hip & ridge cap shingles. No exceptions.
c. Synthetic underlayment is required.
d. Leak barriers must be the mineral surfaced type.
    i. Leak barriers must be installed a minimum of 5" up all side walls.
    ii. Leak barrier must be installed a minimum of 24" around all roof penetration on the roof deck.
    iii. Ice barriers to be installed per IBC/IRC R905.1.2.
e. All flashing is to be installed per manufacturers' recommendations to obtain a minimum 30-year warranty and:
    i. Step flashing to be 5"x5"x7" minimum.
    ii. Be a minimum of 0.019" (0.5 mm) in thickness.
    iii. Be factory painted.
    iv. All rakes or slopes must have step flashing.
    v. Drip edge to be installed on all eves and rakes per IBC/IRC R905.2.8.5 at a minimum.

Metal Roofing

a. Roof pitch to be a minimum of 3/12.
b. Standing seam panels must be used and:
    i. Be 24 gauge or thicker if placed over a heated/conditioned space.
    ii. Have 1 ½" seam height minimum.
    iii. Have striations or stiffening ribs.
    iv. Have a galvalume coating.
    v. Must have a 30-year minimum paint warranty and minimum 20-year metal substrate warranty.
    vi. Be installed per manufacturer's recommendations.
    vii. Must be installed by certified installers.
c. Synthetic underlayment is required on roof deck.

Low Slope/flat Roofing

All low slope/flat roofing products are to be installed per manufacturers' recommendations to achieve at least a 20-year warranty. Existing roof must be removed prior to installation of new roof.

a. Products must be installed by certified installers.
b. Acceptable products are:
    i. Metal panels with a 3" seam height minimum.
    ii. Single- Ply membranes – PVC, TPO or EPDM.
    iii. Modified Bitumen must:
        - Be a 2-ply system.
        - Be Torch down.
        - Have a ceramic surface.
c. All Single-Ply membranes and Modified Bitumen low slope roof products to be installed with heavy duty walkway pads:
    i. Walkway must be a different color and permanently fixed to the roof.
    ii. Must be from same manufacture as roofing material or approved by manufacture for use.

Gutters

Seamless 5" minimum gutter and downspout systems complete to be installed on all buildings.

a. Downspouts must be installed so as not to drain across pedestrian paths of travel.
b. All water from roof and gutter system must be discharged away from building foundation by fixed/poured in place concrete splash blocks with positive sloped drainage away from foundation or be piped underground to an appropriate location.

5. BUILDING ENVELOPE, INSULATION AND SOUND PROOFING

a. If the exterior siding is being removed, all buildings must be wrapped with an exterior water infiltration barrier. All wall penetrations are to be taped for moisture protection or similar water barriers provided manufacture's installation steps are followed.
b. Seal all penetrations to prevent moisture.
c. All attics to be vented.
d. Attics R-38 insulation.
e. Crawl Space floors R-19 insulation.
f. If the walls are opened to the studs, the party walls and floor assemblies require sound proofing (sound batt insulation) to achieve a rating of STC 50.

6. WINDOWS AND DOORS

All windows and exterior doors must be Energy Star rated for zone south central be of high quality, durability and must be installed per manufacturer's requirements to achieve at least a 10-year warranty for windows and a 1-year warranty for Fire Rated doors. Must provide documentation at 100% inspection to support the rating requirements above.

a. All interior doors must:
    i. Be side hinged.
    ii. Be hollow core paneled hardboard, paneled solid wood, or hollow core flush hardwood.
    iii. Hollow core, flush lauan doors are prohibited.
    iv. Have a 3/4” minimum air space at bottom of door measured from finished floor for air circulation.
    v. Louvered doors at HVAC closet for air handler return are acceptable.
b. All exterior doors must be Energy Star metal-clad or fiberglass doors and must:
    i. Metal clad steel-edge doors and frames are acceptable for use in firewalls only.
    ii. Be side hinged.
    iii. Have a rot proof jamb.
    iv. Include a peephole on main entry door.
    v. Have a thumb latch / lever style deadbolt lock.
    vi. Have spring hinges at the unit’s primary unit entry door only.
    vii. Sliding glass doors are prohibited.
c. Windows must be Energy Star rated for zone south central and must:
    i. Have blinds for each window installed.
    ii. Metal blinds are prohibited.
    iii. Provide window manufacturers data sheet (s) with plans.
    iv. Be single hung, double hung, casement or awning.
    v. Have appropriate design for exterior finishes.
    vi. Be continuously caulked behind the flange and taped per the manufacture’s recommendations.
    vii. Be installed per window manufactures recommendations.

7. KITCHENS

a. Kitchen cabinets must be replaced if the PNA reflects the RUL is 5 years or less.
b. All kitchen cabinets shall be constructed with solid wood or plywood stiles, rails, doors and drawer fronts. All cabinets will conform to the performance and fabrication requirements of current ANSI/KCMA standards.
c. Drawers must have dual slide tracks.
d. Site-built cabinets are prohibited.
e. Each kitchen counter must be 36 inches in height above finished floor, excluding the sink and range space or where other heights are dictated by the accessibility standard.
f. Counter tops may be manufactured post form, granite or solid surface.

g. Site built tops countertops must be constructed of 3/4”AC plywood. No particle board, press board or fiber board will be allowed.

h. All refrigerators must be nominally 18 cubic foot minimum Energy Star rated frost free refrigerator freezer with ice maker. Replace with like kind.

i. Doors must open beyond 90 degrees to allow bin removal.

j. Ice maker box (cold water supply) with shut off must be installed behind the refrigerator.

k. All units must have over the range hood or microwave if currently installed in unit.

l. All units must have a slide in range that is at least 30 inches wide or a cooktop and wall oven.

   i. A backsplash panel must be installed behind the cooktop and cover the entire wall behind the cooktop.

   ii. Anti-tip devices must be installed on all kitchen ranges and be securely fastened to the floor.

m. All units must have a Fire Stop or comparable extinguishing system over the stove. Alternatively, the range must have SmartBurner elements installed in the range.

n. Each unit must be equipped with a 5 lb. ABC rated dry chemical fire extinguisher readily accessible in the kitchen and properly mounted. If contained in the cabinet/pantry area must have proper signage, 4” X 3” minimum, identifying the location.

o. Fluorescent lighting or LED lighting is required in the kitchen.

8. BATHROOMS

a. Bathroom vanities/cabinets must be replaced if the PNA reflects the RUL is 5 years or less.

b. All bathroom vanities/cabinets shall be constructed with solid wood or plywood stiles, rails, doors and drawer fronts. All cabinets will conform to the performance and fabrication requirements of current ANSI/KCMA standards and:

c. Drawers must have dual slide tracks.

d. Site-built cabinets are prohibited.

e. Vanities/cabinets must be replaced with like kind.

f. Full bathrooms must have:

   i. Ceiling light and exhaust fan on the same switch and must provide adequate lighting to the tub/shower.

   ii. Vanity lights must be provided.

g. Half bathrooms must have:

   i. Ceiling light and vanity light.

   ii. Exhaust fan.

   iii. Ceiling light and exhaust fan on the same switch.

h. Mirror length must extend from the top of vanity backsplash to 6’ minimum above finish floor. Framed decorative mirrors are accepted if they meet the above requirements.

i. Tub/shower units must be 30” x 60” minimum fiberglass-based units with slip resistant floors. Shower head to be mounted 80” above finished floor.

j. All toilets must be replaced.

9. FLOORING

All flooring must be replaced and the new materials must be installed to manufacturer's specifications using standard methods and resulting in the issuance of a manufacturer's guarantee / warranty.

a. Living Areas must have Luxury Vinyl Tile (LVT), Ceramic Tile, Laminate Flooring or Hardwoods.

b. Bedrooms may have carpet.

c. Kitchens, Bathrooms, Laundry room, Mechanical closets, Dining areas, and Foyer/ entrance area must have resilient flooring LVT, Sheet Vinyl, VCT or Ceramic Tile. Shoe molding must be installed in all resilient flooring areas.

d. LVT must have a minimum 12mil wear layer and provide a minimum 15-year residential warranty. LVT installed in kitchens, bathrooms, laundry areas and mechanical closets must be water resistant.

e. Sheet vinyl must be a minimum 0.095 thickness and provide a minimum 20-year residential warranty.

f. VCT must be at minimum 0.080 thickness.

g. Ceramic floor tile shall be minimum 12" x 12" and installed over poured concrete slab or cementitious backing material.

h. Carpeting shall comply with FHA -HUD Use of Materials Bulletin No. 44d.

i. Carpet pad must be installed under all carpeting and shall comply with FHA -HUD Use of Materials Bulletin No. 72a.

j. Carpet tile may be used in common areas and must be:

   i. rated for severe use with a 3.5 or greater TARR rating,

   ii. open cell backed, no hard backed tiles, and stain resistant.

10. MECHANICALS

All HVAC systems must be replaced if the PNA reflects the RUL is 5 years or less.

a. Non-Unit, "development", spaces must have separate HVAC systems. AKA "House System"

   i. Must have a combined 15 SEER2 or better rated HVAC system.

   ii. All refrigeration lines must be insulated.

   iii. Must be located within the developments building space.

b. All units must have individual central heat and air, HVAC.

   i. Manuals J, S & D must be utilized for design requirements. HVAC manufactures J, S & D software can be utilized to provide the required manuals as long as that manufacturer's equipment is being installed.

   ii. All units must have a combined 15 SEER2 rated HVAC system.

   iii. All refrigeration lines must be insulated.

   iv. Traditional air-handler, heat pump and ducted HVAC systems are acceptable.

v. Mini split ducted or ductless systems are acceptable.

c. All HVAC air handlers must be contained within the unit.

d. Bottom of returns must be 12” minimum above FFE.

e. All openings in duct work at registers and grilles must be covered after installation to keep out debris during construction.

f. Duct board may be used for short, low-pressure, conditioned branch runs.

g. Connections in duct system must be taped and sealed with mastic and fiberglass mesh.

h. Ductwork located in unconditioned spaces must be insulated with R-8 minimum.

i. Galvanized metal or aluminum must be used for plenums and mixing boxes.

j. Electric mechanical condensate pumps are not allowed.

k. 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.

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

m. All bath exhaust fans shall be rated at 70 CFM minimum vented to the exterior of the building using hard ductwork along the shortest run possible. Venting through the roof is prohibited.

n. Dryer vents must be vented to the exterior of the building using hard ductwork along with the shortest run possible: maximum run is 35’ including deductions for elbows.

i. Vent connection must be centered behind the dryer.

ii. Venting through the roof is prohibited.

11. PLUMBING

a. Unit water cut offs must be in an easily accessible area and clearly marked with signage.

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

c. Domestic water lines are not allowed in unconditioned spaces.

d. Offset toilet flanges are prohibited.

e. All shower valves to be anti-scald.

f. Water sense fixtures must be used:

i. Toilets 1.28 GPM or less.

ii. Showerheads, Kitchen faucets and Bath faucets 2.0 GPM or less.

g. A water heater must be provided for each unit and meet the following:

i. Electric water heaters must meet Energy Star requirements.

ii. Gas water heaters must meet Energy Star requirements.

iii. 30 gallon minimum for one- and two-bedroom units.

iv. 40 gallon minimum for three- and four-bedroom units.

v. Prohibited to be mounted above equipment or appliances.

vi. Located in the unit’s insulated envelope.

vii. Placed in drain pans with drain piping plumbed to disposal point as per the latest approved addition of the International Plumbing Code.

viii. Pipe all Water Heater Temperature & Pressure (T&P) relief valve discharges to disposal point as per the latest approved edition of the International Plumbing Code.

ix. Elevated if necessary for proper pan drainage.

x. Use of tankless gas water heaters is allowed with above requirements.

xi. Use of electric tankless water heaters is allowed with above requirements and the electrical panel must be rated at 200 amps or greater.

h. All hub drains serving HVAC condensate lines and water heater lines must be piped to the outside. Piping to the sanitary sewer is not allowed unless a primed p-trap is installed.

i. Frost-proof exterior faucets must be provided on every building within a multi-story development on the "House" water supply. Locations should be maintenance based.

12. ELECTRICAL

a. Units must have separate electrical systems.

b. Non-residential, "development", spaces must have separate electrical systems. AKA "House".

c. Hardwired interconnected Smoke Detectors and Carbon monoxide detectors are to be installed as required by all applicable codes and regulations local, state and federal.

d. All switches and thermostats to be mounted no more than 48" above the FFE unless accessibility requirements mentioned above require different dimensions.

e. All bulbs to be Energy Star rated.

f. All units must have a ceiling fan with light fixture located in the living room and all bedrooms with the light and fan being wall switched separately.

g. Overhead lighting is required in all bedrooms and bathrooms and to be wall switched.

h. Exterior lighting is required at each unit entry door and to be wall switched by door unit. Buildings with conditioned interior corridors with access doors at each end with 24/7 "House" lighting are exempt from this requirement at the unit main entry door only.

i. High speed Internet, phone and data hook-up must be available for all units:

i. All internet, phone and data lines must be toned and tagged properly to each unit.

ii. Each building must have an internet, phone and data termination and demarcation box for each vendor connection.

j. Development Lighting

i. Serviced by the "House" electrical panel.

ii. Must be located in all common areas, breezeways, corridors, stairwells and amenities.

iii. Open areas and exterior amenities must be activated by a photo cell placed on the east or north side of the building.

iv. Conditioned or closed common areas require 24/7 lighting.

13. OTHER UNIT INTERIOR REQUIREMENTS

a. Complete all sheetrock repairs and paint the entire unit.

b. Replace any damaged or broken trim and paint all trim.

14. LAUNDRY FACILITY

a. Access to the laundry facility must be 24/7/365.

b. The entrance must have a minimum roof covering 20 square feet and have adequate lighting functioning from dusk to dawn.

c. The primary entrance door to the laundry facilities must be full view / full length glass to allow residents a view of the outside/inside. Blinds are prohibited.

d. Contain adequate seating

e. A working surface for folding clothes must be installed. Minimum of 24" x48" or 8 square feet.

15. POSTAL FACILITY

a. If not located within the building, the postal facility must:

   i. have a roof covering which offers residents ample protection from the rain while gathering mail

   ii. be located adjacent to available parking and sited such that tenants will not obstruct traffic while collecting mail; and

   iii. have adequate lighting functioning from dusk to dawn.

16. OFFICE, COMMUNITY AND PLAYGROUND

a. Office must be clearly marked and visible with exterior signage on or close to building.

b. Playground (Family developments only)

   i. Equipment must be of commercial design and quality

   ii. All playgrounds must each contain at least four play stations/activities.

   iii. Playground must be located away from areas of frequent automobile traffic and situated such that the play area is visible from the office and maximum number of residential units.

   iv. A bench that is weather resistant, metal or composite, have a back, and be anchored permanently.

18. PARKING, ROADS, SIDEWALKS AND DEVELOPMENT SIGN

a. Parking and sidewalk lighting must be provided.

b. All roads and parking areas are to be asphalt or concrete paved. Existing asphalt should be resealed, and lines should be painted new.

c. Repair or replace damaged curbing for all roads and parking areas throughout the development site.

d. All standard parking spaces must be an asphalt or concrete solid surface with minimum dimensions of 8 feet wide and 18 feet deep.

e. The primary property entrance must have a development sign designed with metal, brick or stone with lighting. The sign must meet local building code.

f. All sidewalks and walkways shall be a minimum of 48” in width, must be made of concrete, and must comply with the following requirements:

   i. Provide access to and connect all front entryway doors, amenities, driveways and leasing office.

   ii. Sidewalks may not exceed a 2% cross slope regardless of where located. Provide a non-skid finish to all walkways.

   iii. The developments sidewalks must join the existing local sidewalks if they exist.

19. REFUSE COLLECTION AND RECYCLING AREA

a. Collection area(s) should be centrally placed within the development and should not be placed at the entrance or exits of the development unless the collection area provides the following:

   i. A pull off from the main road consisting of a cul-de-sac / turn around.

   ii. Dumpsters drop off or pick up that does not stop or impede the flow of traffic.

   iii. Tenant use that does not stop or impede the flow of traffic.

b. Provide an easily-accessible area that serves the entire development for the refuse collection area and recycling area (if provided). These can be combined into one area.

c. The pad and approach pad to the dumpster must be concrete. The approach pad must meet the requirements determined by a professional engineer. Barriers must be used to ensure the dumpster placement will not interfere with the accessible route.

d. The dumpster / trash compactor and recycling pad / area must be enclosed on at least three sides with materials that will be consistent with the design and appearance of the residential buildings. An enclosure combining masonry, cementitious products or composite products are acceptable enclosures, or these products can be used independently. PVC or vinyl fencing is acceptable. Chain link and wood fencing are not acceptable.