

**2020 ARCHITECTURAL MANUAL
APPENDIX I
ARCHITECTURAL STANDARDS**

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I. INTRODUCTION

In accordance with federal requirements established by 24 CFR 92.25 (HOME), IRC Section 42 (LIHTC), and the 1989 Georgia General Assembly Housing Trust Fund (HTF) for the Homeless, the Georgia Department of Community Affairs (DCA) has established these Architectural Standards. All projects receiving DCA resources for the construction of new and/or rehabilitation of existing rental housing, including HOME, CDBG-DR, NHTF, TCAP, 9% LIHTC, 4% LIHTC/Bonds, and/or Housing Trust Fund (HTF), must meet these Architectural Standards. It is the Project Team's responsibility to ensure 100% compliance with this Manual (and approved DCA Architectural Waivers)

All properties funded with a DCA/GHFA loan and/or grant must meet all the requirements in this manual for HOME funded properties, unless a waiver is granted by DCA. Funding sources include, but are not limited to: HOME, NHTF, CDBG-DR, TCAP.

The Qualified Allocation Plan requires that projects funded under the Plan meet applicable Federal, State, and DCA codes, acts, and regulations. These architectural standards are not meant to replace Federal, State or local codes. These standards shall be in addition to the following that are applicable to all properties funded in the program:

- Georgia State Minimum Standard Codes (with Georgia Amendments)
 - i. International Building Code
 - ii. International Energy Conservation Code
 - iii. International Fire Code
 - iv. International Fuel Gas Code
 - v. International Mechanical Code
 - vi. International Plumbing Code
 - vii. International Residential Code
 - viii. National Electrical Code
- HUD Housing Quality Standards (HQS)
- HUD Minimum Property Standards (MPS)
- HUD Uniform Physical Condition Standards (UPCS).

The Qualified Allocation Plan requires that all projects funded under the Plan meet all applicable federal and state accessibility standards as well as all DCA accessibility requirements. For further information on the accessibility laws and requirements that are applicable to projects funded under the Plan, refer to the DCA Accessibility Manual.

By some measures, DCA architectural and accessibility requirements will exceed the referenced state and federal requirements.

All new and rehabilitation construction work scopes must consider the property marketability and residential quality of life which includes, but is not limited to, upgraded building exteriors and unit interiors, and improved site conditions and amenities. These upgrades should be reflected in the Threshold and Scoring portions of the DCA Application. Both new construction and rehabilitation projects must meet the threshold requirements (longevity, per unit cost limitations, financial feasibility and economic viability, including construction standards for potential disaster mitigation, etc.), as published in the Qualified Allocation Plan. These Architectural Standards, as well as

the QAP and Rehabilitation Standards, should be read in their entirety for further information regarding materials longevity and components replacement for completed properties.

New and rehabilitation construction costs are subject to DCA regulations, and per unit cost limits must reflect the reasonable and necessary costs required to develop a project in the State of Georgia. DCA may determine that projects which exceed customary and reasonable construction costs, even if they are within published per unit cost limits, represent a poor utilization of resources and may fail Threshold. Final determination of compliance with the Architectural Standards rests solely with the mortgage lender, the credit enhancement provider, and the Georgia Department of Community Affairs.

DCA may grant an architectural waiver to projects that will not meet the above requirements ONLY if there is an overriding public policy or historic preservation need and the physical needs assessment clearly documents that the existing property does not require a comprehensive rehabilitation.

Applicants must submit ALL "waivers" at the pre-application stage (refer to the 2020 DCA Rehabilitation Guide for further guidance). The Applicant must demonstrate that efforts were taken to meet the minimum design criteria.

Waiver requests for accessibility related items should be accompanied by a legal opinion from the applicant/developer, along with compelling information (i.e. feasibility analysis, site conditions, etc.) that would justify DCA's consideration of waiving the requirement as outlined in DCA QAP and all related manuals. Refer to the 2020 DCA Accessibility Manual for further guidance. DCA will only waive items related to DCA's accessibility mandates. DCA will not approve accessibility waiver requests for projects utilizing HOME, NHTF, and CDBG-DR funds.

All DCA Hard Costs identified with "Contractor Services" are deemed to be work performed by the primary General Contractor. This Contractor work scope would be further defined in the Uses of Funds tab of the Owner's Core application, DCA Rehabilitation Work Scope form, DCA Schedule of Values form and the executed agreement between the Owner and Contractor. The project oversight of the Contractor's work scope, including DCA QAP requirements, must be defined in the executed agreement between the Owner and the Architect. In addition, the Contractor work scope would be subject to the QAP Identity of Interest limitations, Front-End Cost Review and Contractor Cost Certification requirements.

All DCA Hard Costs identified as "Other Construction Hard Costs" in the Core Application and elsewhere are deemed to be work managed directly by the Ownership. This Hard Cost category is intended for very limited use and would be a small percentage of the overall Hard Cost Budget. Past DCA approved uses for this category have been for owner installed window blinds and owner contracted power company parking lot lighting. The "Other Construction Hard Costs" work scope must be identified and approved by DCA both at application and prior to construction commencement. Documents certifying the actual cost must be maintained by the ownership and submitted to DCA with the appropriate Construction Services submissions.

For any project utilizing HOME, NHTF, CDBG-DR, TCAP funds, a **Pre-construction Conference** shall be scheduled within 30 days of construction commencement to review federal compliance requirements and draw request procedures. An onsite **OAC Meeting** shall be scheduled monthly. The DCA Construction Project Manager shall be notified via email of monthly OAC meeting dates and times.

II. DESIGN SUBMITTALS AND CONSTRUCTION MONITORING

A. Drawings and Specifications:

Construction documents, including architectural drawings and specifications, are required for both new construction and rehabilitation projects. To minimize construction problems, unnecessary change orders, discrepancies in documentation and cost overruns, architectural drawings and specifications must meet industry standards, being clear and consistent while faithfully depicting the design, location, and dimensions of project elements. Refer to the Architectural Submission Requirements for document format and submittal requirements.

B. Building Permits:

Building permits are required for all work to be funded under DCA programs. Proof of inspections and approvals by local officials, including Certificates of Occupancy, are required for final allocation of Low Income Housing Tax Credits (LIHTC). See Architectural Submission Requirements and contact DCA LIHTC and HOME underwriters for specific information.

C. Soils and Materials Testing:

All new soils and structural concrete must be tested to ensure compliance with engineered specifications. Additional materials should be tested as dictated by industry standards. A licensed and state accredited testing lab, using standardized testing procedures, must conduct the tests.

D. Construction Monitoring:

DCA will monitor construction through inspection reports and other sources to ensure quality standards and completion dates are met. Periodically, DCA may require Owners to submit additional construction inspection reports and project documents as DCA deems necessary generated by DCA assigned inspectors, construction managers, architects, and/or engineers.

DCA reserves the right to inspect all properties throughout the entire construction process and prior to issuance of Final LIHTC Allocation. Non-compliance with building codes, accessibility codes and/or DCA requirements must be corrected prior to issuance of Final LIHTC Allocation and may require additional DCA inspections at the Owners expense. Refer to the QAP for further DCA and IRS requirements.

If during the construction monitoring period DCA deems that unsafe project site conditions exist, DCA reserves the right to issue a stop work order to the Owner.

DCA inspection reports will address site safety and cleanliness, methods of construction, construction draw requests, percentages of completion, progress and budget analysis, and adherence to codes and standard building practices.

For 4% bond and 9% projects only, the cost for the DCA construction monitoring will be reimbursed to DCA by the Owner as described in Exhibit A (DCA Post Award Deadlines and Fee Schedule) of the Qualified Allocation Plan. If DCA determines that additional construction inspections are necessary, and the total costs of the additional project inspections exceed the fees as described in Exhibit A (DCA Post Award Deadlines and Fee Schedule) of the Qualified Allocation Plan, the additional expense incurred will be reimbursed to DCA by the Owner or billed directly to the Owner. **For HOME, NHTF, CDBG-DR, TCAP projects**, the cost of the DCA construction monitoring will be billed directly to the Owner.

III. SITE DEVELOPMENT STANDARDS

A. Environmental Conditions:

Surrounding environmental conditions must be carefully evaluated. Negative environmental conditions (i.e., ditches, canals, railroad tracks, expressways, noise sources, flood prone areas, etc.) must be corrected or alleviated through approved mitigation measures. Refer to the Environmental Phase I Site Assessment standards published in the DCA Environmental Manual for the environmental documentation and review process. All applications are required to submit a Phase I Environmental Site Assessment and a Phase II investigation if recommended in the Phase I report.

B. Parking:

Parking spaces shall meet local zoning requirements. In the absence of any other requirements, there shall be no less than 1.5 spaces per unit for family tenancy projects and 1 space per unit for senior tenancy projects. Parking areas shall be concrete, asphalt paving or pervious pavement (porous asphalt, plastic grids, permeable interlocking concrete pavers, permeable clay brick pavers, resin-bound paving, bound recycled glass porous pavement) and have curbs (*NOTE: See handicapped parking exceptions*).

All handicapped parking spaces must meet federal and state accessibility requirements. All “newly” constructed handicapped parking spaces shall be concrete paving and all “accessible routes” that incorporate the parking areas should be clearly delineated along the pavement surface (i.e. striping,). Please refer to the DCA Accessibility Manual for more information.

C. Vehicle Circulation:

For tenants, guests, and emergency services providers, vehicle circulation routes should be designed to provide safe ingress and egress to and from all buildings and amenities. Roads shall be either concrete, asphalt paving or pervious pavement (porous asphalt, plastic grids, permeable interlocking concrete pavers, permeable clay brick pavers, resin-bound paving, bound recycled glass porous pavement) and have curbs and sidewalks.

D. Pedestrian Circulation:

Pedestrian circulation should provide paved accessible routes to parking, buildings, and amenities. Streets (except crossing routes), grass and gravel/sand surfaces are not acceptable pedestrian circulation routes. Accessible ramps and no-step access must be provided as applicable.

E. Open Spaces:

Open landscaped spaces or green belts should be included in the overall site design.

F. Landscaping:

Landscaping should be appropriate for the climate zone, appealing, and convey a residential image. Low maintenance plant materials are preferred. For appropriate landscape options, please refer to *Landscape Plants for Georgia*, published by the Cooperative Extension Service, The University of Georgia College of Agricultural and Environmental Sciences.

G. Site Lighting:

One foot-candle is the general standard for site lighting. All parking, building, amenity, and site lighting should be sufficient for its purpose (i.e. evening mail collection, etc.), and be directed down to diminish nuisance light. Additionally, units should have exterior entry and porch door lights controlled from within the unit.

H. Site Amenities:

Required standard and additional selected amenities must meet applicable federal, state, and DCA accessibility requirements, provide seating appropriate to the amenity, and if proper, should be protected from the elements. Amenities such as the playground should be centrally located in visual proximity to the buildings while other noise prone amenities may be appropriately sited on the property.

Standard and additional selected site amenities identified in the application submission must be in the final construction documents and budget. DCA reserves the right to determine the adequacy of amenities and whether or not they meet DCA requirements. Minimum standards for site amenities are outlined in the Amenities Guidebook and the Accessibility Manual.

I. Trash Collection:

Trash collection sites must be screened from residential and community areas and placed at such a distance from the tenant dwelling units and amenities so as to eliminate objectionable sights and odors. The collection areas must be accessible to disabled persons while convenient to tenants and service vehicles. Dumpsters must be placed on concrete slabs with concrete approach aprons at least 10'-0" in depth.

J. Signage and Fixtures:

Building signage should meet the requirements of local 911 service providers. Illumination for the property entrance signage must be provided.

K. Site Grading and Drainage:

Site grading should allow storm water to positively drain away from buildings and site amenities while eliminating pooling, puddling, etc. All on-property retention and detention areas must be fenced, and for maintenance and safety purposes, a properly securable gate may be provided.

Inlet or outlet drainage ways must be designed to prevent resident entry. On-property retention ponds must be well maintained. Foundation walls should prevent the entrance of water, insects, and rodents into the basement or crawl space areas. Access and ventilation of basement and crawl spaces must meet code requirements and must be secured from the exterior as appropriate.

L. Security:

Security measures should be incorporated into the architectural design. As necessary, fencing, lighting, and other security features must mitigate poorly lighted parking areas, blind corners and recesses, inappropriate landscaping, and steep grades. The Owner may wish to include security cameras, HVAC cages, and other site security features. Entry doors to units shall be equipped with a viewer and bell or buzzer. Exterior doors and windows must be equipped with locks to prevent access from the outside. All doors shall be provided with hardware that complies with ANSI/BHMA Standards.

M. Site Utilities:

All utility distribution systems should be underground where possible. **All projects must have requisite access and connectivity to the existing public utilities.** For further information, refer to the Qualified Allocation Plan, Appendix I, Threshold Criteria.

IV. BUILDING EXTERIOR DESIGN STANDARDS

Building exteriors should create a residential image appropriate to the market. DCA encourages the use of materials that provide low maintenance and longevity for the life span of the property. All materials are to be installed using standard construction methods and means, and result in the issuance of manufacturers guarantees.

A. Roofing:

Anti-fungal dimensional (architectural) shingles with a minimum 30-year warranty are required for all shingle roof applications. Flat roofs are not encouraged, but DCA will allow flexibility in roof design if it is part of an energy conservation green building component or a roof design that mimics existing contextual surroundings. Applicants must obtain DCA pre-approval before using one of these alternatives. All edges of the roof must have an aluminum drip edge that extends a minimum 3" under the shingles, 2" onto the fascia and have a minimum 1/2" 45 degree kick out at the bottom end of the fascia extension.

B. Gutters and Downspouts:

Seamless gutters and downspouts are mandatory for all construction and on all buildings.

C. Exterior Cladding:

1. Brick: See Appendix I, Threshold Criteria, Architectural Design & Quality Standards, Qualified Allocation Plan.
2. Insulated vinyl siding must be impact resistant commercial grade with a minimum thickness of .046" and a minimum 30-year warranty to be provided by the manufacturer and must meet or exceed ASTM D3679 & ASTM D7856 standards.
3. Fiber Cement/Cementitious Siding must be 5/16" nominal thickness with a 30-year warranty to be provided by the manufacturer.
4. Natural or manufactured stone.
5. Other materials: The use of exterior insulation and finish systems (EIFS), and stucco must be pre-approved by DCA prior to application submission. Wood siding is not permitted. 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. Vinyl soffit must be commercial grade with a minimum thickness of .046" and a minimum 30-year warranty to be provided by the manufacturer. Wood fascia must be covered completely with prefinished aluminum with a minimum thickness of .024".

Where exterior brick does not extend to an eave line, aluminum flashing shall be installed that extends a minimum of 2" under/behind the above exterior wall surface material and over the outer edge of the brick to prevent water penetration.

D. Exterior Doors and Windows:

1. Exterior doors must be 1 ¾" high durability, insulated (such as steel or fiberglass) and meet the requirements of the *Georgia State Minimum Standard Codes (with Georgia Amendments)*.
2. All primary 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.
3. Exterior doors for fully accessible units must include spring hinges.
4. Windows and door glazing must meet the requirements of the *Georgia State Minimum Standard Codes (with Georgia Amendments)*.
5. Wood windows and exterior entry doors are not permitted.
6. Windows must not be located within a shower surround area or over shower units.
7. Install a continuous bead of silicone caulk behind all nail fins before installing new windows per manufacturer's specifications.
8. Skylights, windows and locations, sizes and operable panels must meet the requirements of the *Georgia State Minimum Standard Codes (with Georgia Amendments)*.

E. Exterior Stairs:

All exterior stairs are to be covered and protected from the elements for both new construction and the rehabilitation of existing buildings.

V. BUILDING INTERIORS DESIGN STANDARDS

A. Room Configuration:

Room configuration should be functional while providing economic use of space:

1. The primary bathroom shall be accessible from a common area such as a hall. Exceptions may be considered for the rehabilitation of one-bedroom units.
2. The kitchen should be accessible from the entry.
3. Bathrooms must not open from areas of food preparation or be used as a sole passageway to a habitable room, hall, basement, or the exterior.
4. No habitable rooms are permitted in basement or cellar spaces unless egress is provided according to applicable fire codes.
5. All windows in bedroom units must comply with all local and state life safety requirements. No windowless bedrooms will be allowed unless an architectural standards pre-application waiver is submitted with documentation evidencing the approval of such by the local code official and/or State Fire Marshal.

B. Unit Sizes:

The following criteria are the minimum requirements and submissions that appear to violate the spirit and intent of these minimums may be considered by DCA as a poor use of resources.

Net Rentable (Leasable) Square Footage:

This is the DCA definition for calculating “Residential Unit Square Footage” as it pertains to the Architectural Manual and other documents in Qualified Allocation Plan (QAP). It is calculated for each individual dwelling type.

The unit net rentable area is measured from the inside face of each of the unit’s perimeter walls.

1. Net area included air-conditioned space only.
2. Measure from the inside (paint) face of all unit perimeter walls.
3. Do not include any patio, balcony, or breezeway areas.
4. Do not include any outside storage closets.
5. Do not deduct any interior walls.
6. Include non-revenue units in total net rentable living area (Total Residential Unit Square Footage)

C. Minimum Unit Sizes (Waiver may not be requested for new construction)

DWELLING TYPE	MINIMUM SQUARE FOOTAGE	KITCHEN	BATHROOM
Studio	375	Cooking area	1
Efficiency	450	Full kitchen	1
1 bedroom	650	Full kitchen	1
2 bedroom	850	Full kitchen	1

3 bedroom (+)	1,100	Full kitchen	2
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D. Kitchen Requirements (Waiver may not be requested for new construction)

UNIT TYPE	MINIMUM CLEAR COUNTERTOP FRONTAGE	MINIMUM LINEAR FOOTAGE OF CABINETS (includes base & wall cabinets, combined)
1 bedroom	6'-9"	16
2 bedroom	7'-9"	18
3 bedroom	8'-9"	20

E. Closets

1. According to market demand, a suitable number of closets should be provided for each dwelling unit.
2. All closets designed to contain clothes must be a minimum of 2'-0" deep.
3. Closets and defined storage areas must not be included in the room area square footage computations.
4. Closets and storage spaces in accessible units must meet applicable reach range requirements.
5. All closets must have doors.

F. Ceiling Heights

1. Flat ceilings must be a minimum of 8'-0" above finished floor.
2. Sloped ceilings must not be less than 5'-0" for the purposes of computing floor areas.
3. Ceiling heights must meet minimum requirements established by the *Life Safety Code* and the Georgia State Fire Marshal's Office.

G. Floor Finishes:

Floor finishes are to be suitable for market conditions and appropriate to the space considered.

1. Living Areas and Bedrooms: Carpet or LVT
2. Bathrooms, Mechanical Closets, Laundry Areas, Kitchen and other high moisture areas: Sheet Vinyl, VCT, LVT or Ceramic Tile.

DCA will evaluate kitchen and living room flooring materials for appropriate marketability, durability, sound transmission, and tenant comfort.

All materials are to be installed to manufacturer's specifications using standard methods and resulting in the issuance of a manufacturer's guarantee. DCA may approve material upgrades that possess improved maintenance qualities, durability, safety and/or indoor air quality for the tenants. Manufacturer's warranties must be submitted to the Owner.

Additional Flooring Requirements:

- Unit carpeting may have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. DCA may approve alternate carpeting materials and installation methods in units intended for the elderly or disabled. Carpeting shall comply with HUD's Use of Materials Bulletin No. 44d.
- Carpet pad must be installed under all carpeting for which it is intended and should comply with HUD's *Use of Materials Bulletin No. 72a*.
- Sheet vinyl must be a minimum 0.095 in. thickness and provide a 20-year residential warranty.
- Ceramic floor tile shall be minimum 12" x 12" and installed over poured concrete slab or cementitious backing material.
- VCT must be at minimum 0.080 in. thickness.
- Luxury Vinyl Tile (LVT) must have a 12mil wear layer and provide a 15-year residential warranty. LVT installed in kitchens, bathrooms, laundry areas and mechanical closets must be 100% waterproof.

H. Additional Requirements:

1. Bathrooms must have adequate storage. If adequate cabinet space is not available, bathrooms must have medicine cabinets. Medicine cabinets should not be placed in party walls unless fire separation is continuous behind and around the cabinet installation.
2. Plastic laminate material must be installed the full width and depth on the bottom shelf of vanity sink cabinets and kitchen sink cabinets and must be sealed/caulked around the full perimeter to all cabinet sides to prevent moisture/water penetration.
3. Kitchen countertops must be constructed of a 3/4" plywood base with laminate top or solid surface material. No particle board, press board or fiber board will be allowed.
4. All open voids above and below upper and lower kitchen cabinets shall be sealed with caulk or cabinet matching material/finish and all cabinets shall be caulked where the cabinet meets a wall surface to prevent pest infestation. No open voids will be allowed. All open voids/holes in cabinet backs must be sealed with matching cabinet material, caulk or expandable foam and all pipe penetrations must be covered with an escutcheon.
5. Kitchen cabinets must be provided above and below countertops. Cabinets shall be constructed with solid wood or plywood boxes, stiles, rails, doors and drawer fronts. All cabinets will conform to the performance and fabrication requirements of HUD Severe Use and *ANSI/KCMA A161.1* and bear the KCMA Certification Seal. No particle board, press board or fiber board will be allowed.
6. Blinds: All windows should have neutral color horizontal mini blinds. All glass doors should have either mini-blinds or vertical slat blinds.
7. Cable outlets must be provided in the main living area and in all bedrooms. Provide one internet router outlet.
8. All interior finishes, especially interior paint, must be low in Volatile Organic Compounds (VOCs) as defined in the EarthCraft Multifamily program (<http://www.earthcraft.org/multifamily>).

9. 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. Water heaters may not be installed over the clothes washer or dryer space.
10. Bathroom shower walls shall be either ceramic tile, solid surface material, one-piece fiberglass tub/shower enclosure or one-piece fiberglass shower enclosure. Ceramic wall tile shall be installed over cementitious backing material.
11. For new construction only, all dwelling units shall have washer and dryer hookups.

I. Appliances:

Appliances must include:

- microwaves
- refrigerators
- ranges
- dishwashers (*Note: Dishwashers NOT required in "senior" USDA or HUD properties*)

Minimum refrigerator sizes for one and two bedroom units -"14 cu. ft."; three bedroom units—"16 cu. ft." All refrigerators shall have a built in "ice maker".

Other kitchen appliance sizes must be appropriate for the unit and number of tenants. Appropriate appliances listed in US EPA's Energy Star program must be provided. Further information is available at <http://www.energystar.gov/>.

Washers in units must be equipped with a "drain pan or floor drain" as required by the *Georgia State Minimum Standard Codes (with Georgia Amendments)*. Owner-furnished "washers" in mobility units and community laundries shall be front-loading and Energy Star rated.

J. Mechanical

Mechanical system equipment must meet the requirements of the *Georgia State Minimum Standard Codes (with Georgia Amendments)*.

K. Electrical, Plumbing, and Indoor Air Quality:

The minimum requirements for this section are located in *Appendix I, Threshold Criteria, BUILDING SUSTAINABILITY, Qualified Allocation Plan*.

L. Electrical:

Electrical distribution system minimum panel size is 100 amps, or per code. Electrical switches, outlets, thermostats, phone and television jacks and other controls are to be installed per Fair Housing Act Design Manual requirements in qualified units and per appropriate accessibility law in accessible units. All penetrations of smoke partitions and rated assemblies must comply with fire codes as administered by the local authorities.

M. Acoustical Isolation:

Acoustical isolation requires a minimum STC rating of 52. Acoustical isolation surpassing the required minimums will increase unit quality. Noise levels on funded properties must meet DCA and HUD noise limitations:

- Exteriors: 65 dB
- Interiors: 45 dB

In areas where daytime/nighttime noise levels are above these limitations, documentation of the construction and mitigation methods must accompany the application for funding.

The following minimum standards apply:

1. Between units: 1 hr. rated UL assembly with one layer 5/8" GWB on each side (minimum or per local fire requirements if greater) w/two sets of staggered 2x4 studs (or metal stud equivalent), sound-insulated with blanket material to STC rating of 52. All wall edges must be caulked;
2. Within unit: one layer 1/2" GWB on each side 2x4 studs (or metal stud equivalent);
3. Floor to floor: 1 hr. rated UL assembly with a minimum STC rating 52. A minimum of 1" lightweight concrete or 3/4" gypcrete topping over wood sub floor (optional floor construction may be considered for the rehabilitation of existing residential units).

N. Thermal Insulation:

Thermal insulation must meet minimum standards as defined in *Georgia State Minimum Standard Energy Code (International Energy Conservation Code)*. To prevent freezing of supply lines, all plumbing in exterior walls must be insulated on the cold side of the wall.

O. Radon:

All new construction must be built in accordance with current EPA requirements for radon resistant construction techniques, including, but not limited to, ASTM E1465 – 08a Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings. Both new construction and rehabilitated buildings must be tested prior to tenant occupancy for compliance with EPA's established limits for radon levels.

VI. FIRE AND LIFE SAFETY

Through strict code compliance, the property design shall provide a safe environment for all tenants. Adherence to the most recently adopted editions of the *Georgia State Minimum Standard Codes (with Georgia Amendments)* is required. This includes but is not limited to:

- A. Smoke detectors must be hard-wired and located per code for all construction, either rehabilitation or new. DCA will not waive this requirement for rehabilitation proposals. Carbon Monoxide Detectors shall be in accordance with NFPA 101 Life Safety Code and NFPA 720.
- B. Fire alarms and sprinklers must meet fire department, state and local code requirements.
- C. Attics must be constructed or rebuilt to meet all current fire and life safety codes, **regardless of the requirements of the local building authority**. These include draft stop walls, and rated ceiling, floor, and wall assemblies.
- D. All through-penetrations of smoke walls, draft stops, and rated assemblies must meet current fire codes.
- E. Projects shall be in compliance with all disaster mitigation-related requirements of the latest editions of the applicable mandatory State Minimum Standards as adopted and amended by the Department of community Affairs, and with all local ordinances regarding disaster mitigation.

VII. ACCESSIBILITY

It is mandatory that the Property be designed to meet all applicable federal, state, local and DCA requirements for accessibility by the disabled. The accessibility characteristics are to be incorporated in the layout and design of open spaces, building locations and unit designs. Refer to the "2020 DCA Accessibility Manual" for additional information. Please note that DCA requirements may be more stringent than federal or state requirements.

Newly constructed and rehabilitated single-family and multi-family housing developments receiving DCA funding are subject to statutory and regulatory accessibility requirements. It is the responsibility of the Owner, Architect, and Contractor to ensure compliance with all federal, state and local laws. DCA's direct relationship to the Owner pertains only to the awarding of funds. The Owner bears final responsibility for compliance, regardless of fault, though he may seek legal restitution from the source of non-compliance.

Specifically, the Owner, Architect, and Contractor must ensure that the project is designed and built to meet applicable standards. Failure to meet these standards may result in federal and state noncompliance and costly repairs or corrections. Projects receiving DCA funding must meet federal, state and local accessibility laws and meet the requirements of the DCA 2020 QAP and the 2020 DCA Accessibility Manual.