ILLINOIS HOUSING DEVELOPMENT AUTHORITY
ARCHITECTURAL PLANNING
AND CONSTRUCTION GUIDELINES

Updated December 2009

INTRODUCTION

The Architectural Planning and Construction Guidelines (Guidelines) are being provided as an aide for developers, architects and contractors for the design and construction of quality affordable housing. These Guidelines shall be used as a reference in establishing Illinois Housing Development Authority's (Authority) minimum quality standards. The Authority will use these standards to evaluate the plans, specifications and other relevant data of the proposed multifamily development, including new construction, rehabilitation and the adaptive reuse of existing buildings. We encourage users to exceed these minimum requirements whenever possible, making projects more viable and extending their longevity. By increasing items such as the buildings energy efficiency, utilizing environmentally friendly materials, and insuring projects are more cost effective to construct and operate, the owner, taxpayer and the end-user all benefit.

The Authority's design review will be based in-part by the following broad policy objectives:

- The quality of the buildings and other improvements must be consistent with the underwriting and program requirements.
- The project must comply with all local, state, and federal codes or regulations (including any applicable lead-based paint, mold, and asbestos regulations and any other Authority requirement).
- The development must be consistent with the demands of the marketplace.
- The design and construction must be consistent with recognized standards and accepted practices in the construction industry.
- The Authority reserves the right to object to any proposed building system or material selection as being in conflict with the Authority's interests.

The Guidelines are subject to change and modification, this version supersedes and replaces any prior versions. The Authority will also evaluate certain aspects of the Guidelines that may require modification in order to meet the unique site, design or use of the development. In this event, the Authority will consider modification requests on a case by case basis. It is therefore highly recommended that Authority staff be involved in your design concept at the earliest stage possible to provide guidance through the review process.

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SECTION 1.00 - DEFINITIONS

Unless otherwise expressly stated, the following terms shall, for the purposes of the Guidelines, have the meaning shown in this Section. Where terms are not defined in this Section, they shall have ordinarily accepted meanings such as the context implies.

"Accessible Dwelling Unit"*:* A unit that is approached, entered, and used by physically challenged people.

"Accessible Route": A continuous unobstructed path connecting all accessible elements and spaces of a building or facility. Interior accessible routes may include corridors, doorways, floors, ramps, elevators, lifts, skywalks and tunnels. Exterior accessible routes may include parking spaces, parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts.

"Accessibility Standards": Accessibility standards mean the Illinois Accessibility Code, the Fair Housing Act, Americans with Disabilities Act, local building codes, and Section 504 of the 1973 Rehabilitation Act.

"Adaptability or Adaptable": The ability of certain building spaces and elements, such as: kitchen counters, sinks, and grab bars, to be added or altered so as to accommodate the needs of individuals with or without disabilities or to accommodate the needs of persons with different types or degrees of disability.

"Adaptable Dwelling Unit": A dwelling unit constructed and equipped so it can be converted with minimal structural change for use by persons with different types and degrees of environmental limitation.

"Adaptive Reuse": The process of converting or adapting structures for purposes or uses other than those initially intended.

"**Addition"*:*** An expansion, extension, or increase in the gross floor area of a building or facility.

"Alteration": Any modification or renovation that affects or could affect the usability of the building or facility or part of the building or facility. Alteration includes*, but is not limited to, remodeling, renovation, rehabilitation, reconstruction, historic preservation, historic reconstruction, historic restoration (as separately required in Section 400.610), changes or rearrangement of the structural parts or elements, extraordinary repairs (as defined herein), changes to or replacement of plumbing fixtures or controls, changes or rearrangement in the plan configuration of walls and full-height partitions, and changes or improvements to parking lots (as separately required in Section 400.510 (e) 10) (c).

***The following work is not considered to be an alteration unless it affects the usability of the building or facility**: normal maintenance, re-roofing, interior or exterior redecoration, changes to mechanical and electrical systems, replacement of plumbing, piping or valves, asbestos removal, or installation of fire sprinkler systems. (Section 3, Environmental Barriers Act - EBA).

"Architect/Engineer of Record": An architect, professional engineer, or structural engineer as defined by the Illinois Architecture Practice Act, the Illinois Professional Engineering Practice Act, or the Illinois Structural Engineering Licensing Act who has the contract responsibility for the project, who prepares the construction documents from which the building is constructed, and who signs the required documents.

"Architect/Engineer-Consulting": An architect, professional engineer, or structural engineer as defined by the Illinois Architecture Practice Act, the Illinois Professional Engineering Practice Act, or the Illinois Structural Engineering Licensing Act who provides his professional services such as civil, mechanical, electrical and plumbing engineering and design, to the "Architect of Record".

"Area, Gross": The total area of a building or part of a building measured from the outside face of the exterior walls, including areas of usable or occupiable basements, but not including areas of basements used for storage or mechanical purposes only, overhangs, and mechanical penthouses on the roof.

"Area, Net": The total usable or occupiable area within the enclosing walls or partitions exclusive of shafts, partitions, columns, walls, elevators, stairs, permanent fixtures, toilet rooms, janitor closets, and mechanical, electrical, and telephone rooms.

"Area of Rescue Assistance": An area, which has direct access to an exit, where people who are unable to use stairs may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

"Building Code, Applicable": The building code adopted by the administrative authority under whose jurisdiction the work involved with the construction, addition, alteration, or change of occupancy will be carried out. If no building code has been adopted by the administrative authority, or if the work is not within a municipal or other administrative authority's jurisdiction, the building code shall be deemed to be the 2006 International Building Code package with amendments.

"Change Order": A written request prepared on A.I.A. Form G701 that changes the scope of work from the Authority approved drawings and specifications. The change order must be signed by the Owner, Architect of Record, and the Contractor and presented to the IHDA field representative at least one month before requesting the payment on a draw.

"Clear Floor Space": The minimum unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant.

"Common Use or Common Areas": Areas (including interior and exterior rooms, spaces, or elements) which are held out for use by all tenants, there guests, and owners in public facilities and multi-story housing units.

"Cross Slope": The slope that is perpendicular to the direction of travel (see Running Slope).

"Curb Ramp": A short ramp cutting through a curb or built up to it.

"Detectable Warning": A standardized surface feature built in or applied to a walking surfaces or other element to warn people with visual impairments of hazards on the circulation path. The State of Illinois has adopted the truncated dome standard with a contrasting color to the base surface.

"Dwelling Unit": A single residential unit which provides a kitchen or food preparation area, in addition to rooms and spaces for living, bathing, sleeping, and the like.

"Efficiency or Studio Unit" A unit used or intended to be used as a residential housekeeping unit by not more than one occupant for living, sleeping, and cooking facilities. The unit shall contain not less than 300 square feet of floor area for new construction projects and not less than 250 square feet for rehabilitation projects, including the floor areas for bathrooms and closets.

"Emergency Warning System": A fire alarm, carbon monoxide, smoke or heat detector system used to activate emergency audible and visual alarms.

"Entrance": Any access point to a building or portion of a building used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform itself, vestibules, if provided, and the entry door or doors or gate or gates

"Environmental Barrier": An element or space of the built environment which limits accessibility to or use of the built environment by environmentally limited persons.

"Exit": That portion of a means of egress which is separated from all other spaces of a building or structure by construction or equipment as required by the applicable building code to provide a protected way of travel to the exit discharge. The walls ceiling, and openings therein, of the protected way of travel shall provide a fire resistance rating required by the applicable building code.

"Exit Access": That portion of a means of egress that leads to an exit.

"Exit Discharge": That portion of a means of egress between the termination of an exit and a public way.

"Extraordinary Repair": The replacement or renewal of any element of an existing building or facility for purposes other than normal routine maintenance. It includes, but is not limited to: replacement of sidewalk and curb ramp, replacement of a door and frame, complete stair replacement and plumbing fixture replacement (see Alteration).

"Facility": All or any portion of buildings, structures, site improvements, complexes, equipment, roads, walks, passageways, parking lots, or other real or personal property located on a site *(see Public Facility)*.

"Floor": Any level within a building that may be occupied by the public. Mezzanines and seating tiers are not included in the definition of "Floor" in the Illinois Accessibility Code.

"Functional Spaces": The rooms or spaces in a building or facility that house the primary functions for which the building or facility is intended, and the secondary or supporting functions that relate to the support, maintenance or performance of the primary functions, including connective or ancillary space such as parking and storage. Unfinished or undeveloped space is included as a "Functional Space".

"Governmental Unit": The State or any political subdivision thereof, including but not limited to any county, town, township, city, village, municipality, municipal corporation, school district (Section 3, EBA), park district, sanitary district, local housing authority, public commission, public authority, the Authority or other special purpose district.

"Grade": The elevation of the finished surface of the ground, paving, or sidewalk within the area between the building and an imaginary line five feet (5') from the building.

"Ground Floor": Any occupiable floor less than one story above or below grade with direct access to grade. A building or facility always has at least one ground floor and may have more than one ground floor as where a split-level entrance has been provided or where a building is built into a hillside. A building where the first floor containing dwelling units is above grade that floor will be considered the ground floor. For example, a grade level or slightly below grade floor contains parking, laundry, building office, and storage is not considered a ground floor. The first floor in a building of this type containing dwelling units will be considered the ground floor

"Habitable Room": A room within a residential occupancy and used or intended to be used for living, sleeping, eating or cooking purposes, as well as any room within a residential occupancy but does not include bathrooms, toilet rooms laundries, pantries, foyers, corridors, storage spaces, stairways or closets.

"Historic Building": All buildings, parts of buildings, facilities or sites individually listed in or eligible for listing in the National Register of Historic Places, a "contributing" building or site in a National Register Historic District as determined by the Illinois Historic Preservation Agency (IHPA) or as determined by a "Certified Local Government" designated by the IHPA, a building or site designated as a historic or architectural landmark by a local Landmarks Commission or local Historic Preservation Commission, and buildings which undergo historic reconstruction.

"Historic Preservation": The act or process of accurately preserving and/or recovering the form and details of a historic building and its setting as it appeared at a particular period of time by means of repair, stabilization, or restoration as defined herein. Historic Preservation also includes "Historic Reconstruction and Historic Restoration".

"Historic Reconstruction": The act or process of reproducing by new construction the exact form and detail of an original building, structure, object, or part thereof as it appeared at a specific period of time. Historic Reconstruction only applies to reconstruction of buildings which are open to view by the public, are used to

demonstrate historic or architectural values, and/or are used for purposes of display of a historic building type, design, and technique of construction or period setting.

"Historic Restoration": The act or process of accurately recovering the form and details of a building or facility and its setting as it appeared at a particular period of time by means of the removal of later works or replacement of missing earlier work.

"Housing, Financed or Guaranteed by a Government Unit": Any building, facility or portion thereof, excluding in-patient medical care facilities, which contains one or more dwelling units or sleeping accommodations, and which is owned by or on behalf of a governmental unit, or financed, in whole or in part, for either initial construction or subsequent alteration, by a grant or loan made or guaranteed by a governmental unit. Such housing may include, but is not limited to, one family dwellings and multi-family dwellings, including multi-story apartment buildings, group homes, dormitories and housing for the elderly.

"Interior Redecoration": Replacement of interior floor, wall, and ceiling decorative finishes (such as carpet, wall coverings, paint, and paneling), window treatments (such as drapery, blinds, and shades), interior space lighting, fixtures, furnishings, and furniture.

"Masonry Unit" Brick, tile, stone, glass block or concrete block conforming to the requirements specified in Section 2103 of the 2006 International Building Code.

"Means of Egress": A continuous and unobstructed path of travel from any point in a building or structure to a public way, consisting of three separate and distinct parts: the exit access, the exit, and the exit discharge. A means of egress comprises vertical and horizontal means of travel and includes intervening room spaces, doors, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, escalators, horizontal exits, courts and yards. (Section 3, EBA).

"Mezzanine": Any intermediate occupiable and usable level placed above any floor of a building and limited to 33% of the net floor area of the floor over which it is placed. The net area of a mezzanine is included in the net area of the floor above which it is placed.

"Multi-Story Building": Any building of any type two or more stories above the grade level containing any number of units.

"Multi-Story Housing Unit": Any building of four or more stories containing ten or more dwelling units constructed to be held out for sale or lease by any person to the public. (Section 3, EBA). This category includes, but is not limited to, the following building types: apartment buildings, condominium apartment buildings, convents, housing for the elderly and monasteries.

"**Other Alterations"(Section 504):** If the project involves fewer than 15 units or the cost of alterations is less than 75% of the replacement cost of the completed facility and the recipient has not made 5% of its units in the development accessible to and usable by individuals with disabilities, then the requirements of 24 CFR 8.23(b) apply. Under this section, alterations to dwelling units shall, to the maximum extent feasible, be made readily accessible to and usable by individuals with disabilities. If alterations to single elements or spaces of a dwelling unit, when considered together, amount to an alteration of a dwelling unit, the entire unit shall be made accessible. Alteration of an entire unit is considered to be when at least all of the following individual elements are replaced:

- renovation of whole kitchens, or at least replacement of kitchen cabinets; and
- renovation of the bathroom, if at least bathtub or shower is replaced or added, or a toilet and flooring is replaces; and
- replacement of entrance door jambs.

When the entire unit is not being altered, 100% of the single elements being altered must be made accessible until 5% of the units in the development are accessible. However, the HUD strongly encourages a recipient to make 5% of the units in a development readily accessible to and usable by individuals with mobility impairments, since that will avoid the necessity of making every element altered accessible, which often may result in having partially accessible units which may be of little or no value for persons with mobility impairments. It is also more likely that the cost of making 5% of the units accessible up front will be less than making each and every element altered accessible. Alterations must meet the applicable sections of the UFAS which govern alterations.

"Power-Assisted Door": A door used for human passage, with a mechanism that helps to open the door, or relieves the opening resistance of the door, upon the activation of a switch or a continued force applied to the door itself.

"Principal or Primary Entrance": An entrance intended to be used by the residents or users to enter or leave a building or facility. This shall include, but is not limited to, the main entrance.

"Privately Owned Building": Any building which is not publicly owned as defined herein.

"Project": Any building, structure or site including the related improvements owned or financed in whole or in part by the Authority, or one in which the Authority has or will have an interest.

"Public": Any group of people who are users of the building and employees of the building, excluding those people who are employed by the owner of a building for construction or alteration of a building. (Section 3, EBA).

"Public Facility": Any building, structure, or site improvement which is: (i) owned by or on behalf of a governmental unit; leased, rented or used, in whole or in part, by a governmental unit: financed, in whole or in part, by a grant or a loan made or guaranteed by a governmental unit. (ii) used or held out for use or intended for use by the public or by employees for one or more of, but not limited to, the following: the purpose of gathering, recreation, transient lodging, education, employment, institutional care, or the purchase, rental, sale or acquisition of any goods, personal property or services; places of public display or collection; social service establishments; and stations used for specified public transportation. (Section 3, EBA).

"Public Use": Interior and exterior rooms or spaces that are made available to the general public at a building or facility that is privately or publicly owned.

"Ramp": A walking surface which has a running slope greater than 1:20 and a cross slope no greater than 2%.

"Reproduction Cost": The estimated cost of constructing a new building, structure, or site improvement of like size, design and materials at the site of the original building, structure, or site improvement, assuming such site is clear. The reproduction cost shall be determined by using the recognized standards of an authoritative technical organization (see Authoritative Technical Organization for examples of estimating guides). (Section 3, EBA).

"Running Slope": The slope that is parallel to the direction of travel (see Cross Slope).

"Service Entrance": An entrance intended primarily for delivery of goods or services. A service entrance may not be the principal entrance unless it is the only entrance to the building/facility.

"Single Room Occupancy Unit or SRO" A unit used or intended to be used as a residential housekeeping unit by not more than one occupant for living, sleeping, with or without cooking facilities. The unit shall contain not more than one habitable room consisting of not less than 180 square feet and not more than 250 square feet of floor area for new construction projects and not less than 150 square feet for rehabilitation

projects, excluding the floor areas for bathrooms, toilet rooms, laundries, pantries, foyers, corridors, storage spaces, stairways and closets.

"Storage, Bulk": A clear volume space provided for storage of personal items such as luggage, boxes of seasonal items or any bulk items. The space may be located in the dwelling unit, in a separate room in the building, or in a separate building on the same site.

"Structural Change": Changes to or rearrangement of the structural elements, plumbing fixture changes, or changes to or rearrangement of the plan configuration of walls and full height partitions.

"Structurally Impracticable": Those rare circumstances when the unique characteristics of terrain prevent the incorporation of accessibility features in new construction.

"**Substantial Alteration (Section 504)":** Alterations are substantial if they are undertaken to a project that has 15 or more units and the cost of the alterations is 75% or more of the replacement cost of the completed facility. [See 24 CFR 8.23(a)]. The new construction provisions of 24 CFR 8.22 shall apply. Section 8.22 requires that a minimum of 5% of the dwelling units, or at least one unit, whichever is greater, shall be made accessible to persons with mobility disabilities and an additional 2% of the dwelling units, or at least one unit, whichever is greater, shall be made accessible to persons with hearing or visual disabilities.

"Technically Infeasible": With respect to an alteration of a building or a facility, a change that has little likelihood of being accomplished because existing structural conditions would require removing or altering a load-bearing member, which is an essential part of the structural frame; or because other existing physical or site constraints prohibit modification or addition of elements, spaces or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility. (ADA Accessibility Guidelines 4.1.6)

"Toilet or Powder Rooms": At a minimum, a room consisting of one water closet and one lavatory.

"Vehicular Way": A route intended for vehicular traffic, such as a street, driveway or parking lot.

"Visitability": The requirement that all single-family homes, townhouses, multi-story housing units, and multi-family apartment units provide accessible features that permit people with mobility impairments to visit (enter and stay, but not live in) a residence.

SECTION 2.00 – PLAN REVIEW PROCESS

At the earliest possible date, the Developer should submit one set of preliminary drawings and specifications to Architectural Services for analysis and comment. Once the Authority has determined the project is feasible, the Sponsor shall submit completed project drawings and specifications to Architectural Services for their respective review. This review and approval must take place prior to the project being presented to the IHDA Board. Any major modifications to the project after Board approval must be approved by the Authority and possibly IHDA Board.

Before initial loan closing, two copies of the complete drawings shall be submitted to the Authority. This set shall incorporate all changes required by the municipal authorities, all applicable comments made by the Authority; all approved "value engineering" changes and any applicable comments made by other governmental agencies (HUD, IEPA, etc.).

The drawings and specifications must be prepared under direct supervision of an Illinois Licensed Architect

in accordance with the Architectural Practice Act, bear the license number of the architect, and if the architect is part of any business structure other than a sole proprietorship, he or she must include the Project Design Firm registration number on the drawings. The drawings are required to be signed and sealed by the design architect ("Architect of Record"). A Professional Engineer licensed to practice their profession in the State of Illinois, when acting as a consultant to the Architect of Record or under a separate agreement with the owner, must sign and seal his work and provide proof of professional liability insurance.

The Authority's acceptance of plans and specifications is limited to the Authority review and shall not constitute a general approval of the development. The review of the plans and specifications is solely for the benefit of the Authority and not that of any other party. Subsequent modifications to the plans and specifications after the Authority's acceptance must be approved by the Authority. Further, such acceptance shall not constitute a waiver of the Authority rights against those responsible for any error or omission or unauthorized changes.

Illinois State Prevailing Wages or Federal Davis-Bacon Prevailing Wage requirements are required on IHDA financed projects having construction related activities.

The completed project drawings must be current (≤ twelve- months old) and include the following:

2.01 New Construction

- Complete Civil Engineering Drawings, including, but not limited to, location map, site erosion plan, site utilities plan, site grading plan, site parking plan, pavement details, curb details, curb ramp details, sidewalk details, topographical survey, site drainage plan, road profiles (if applicable), flood plain information, and other necessary details that appear on a complete set of civil engineering drawings.
- Complete Architectural Drawings, including, but not limited to, site plan including project date, building and zoning code information and parking data, table indicating unit mix, apartment unit types (A or B) and sizes, parking layouts, wall sections, stair details, kitchen details, door schedules, room finish schedules, bathroom details, large scale drawings of the typical apartments, large scale drawings of the common areas, accessibility compliance, and all other necessary details required for a complete set of architectural drawings.
- Complete Mechanical Drawings including, but not limited to, duct layouts, location of the HVAC equipment including condensing units, piping layouts, if hot water heating, large scale boiler room layout, equipment schedules, and other necessary details required for a complete set of mechanical drawings.
- Complete Plumbing Drawings, including, but not limited to, location and size of incoming water service, hot and cold-water distribution piping, storm water drainage piping, sanitary sewer piping, plumbing fixture and equipment schedules, soil waste and vent diagrams, water distribution diagrams, and other necessary details required for a complete set of plumbing drawings.
- Complete Electrical Drawings including, but not limited to, location and height of all switches and outlets, location of all lighting fixtures, location of all electrical panels, location of the incoming electric service, size of the incoming electric service, electric riser diagram, main distribution panel diagram, electric panel schedules, large scale floor plan of the electrical equipment room, location of all exit and emergency lighting, location of all fire alarm audio visual devices, location of all pull stations, site lighting plan, and all necessary details required for a complete set of electrical drawings.

- Complete Structural Engineering Drawings including, but not limited, foundation plan, footing and pier schedules, foundation and footing sections, floor framing plans, structural steel sizes and layout, roof framing plan, column schedule, connection details, and required details for a complete set of structural drawings.
- Complete Landscape Drawings including but not limited to location of all trees, shrubs, berms, and sod/grass areas, material schedules, and required details for a complete set of landscape drawings.
- Complete Fire Protection Drawings (if applicable).
- Verification that the drawings comply with the 2006 Energy Conservation Code. (REScheck 4.1.4 or equal).
- Green Development Plan outlining the integrated design approach used for this development.
- Complete soil boring (geotechnical) report including surface and sub-surface mining information and mining maps.
- For projects that fall within the New Madrid Seismic Zone, a certification statement attesting to the fact that the structural drawings meet the seismic design requirements for earthquake resistant buildings.
- Project specifications and design manual outlining the necessary material, installation and other requirements to complete the scope of work for the successful construction of the project. This information shall be presented in the most current Construction Specifications Institute (CSI) format.
- A current (≤ six-months old) ALTA/ACSM Land Title Survey.
- A current (≤ six-months old) Phase I Environmental Assessment. The Phase I must be completed by an IHDA approved vendor. The approved vendors list may be found on the IHDA website (www.ihda.org). This assessment must include, but not be limited to, the following considerations.
    - Adjoining land use and zoning.
    - Soil conditions.
    - Slope conditions as related to soil erosion, parking, walks, drives, etc.
    - Storm water drainage.
    - Acoustic considerations.
    - Lead-based paint considerations. (24 CFR Part 35)
    - Asbestos considerations (HUD, EPA and IEPA).
    - Mold considerations
    - Site plan showing all major site features, buildings, roads, walks, utilities, etc.
    - Flood plain information
    - Wetland information
    - Mining information

2.02 Rehabilitation and Adaptive Reuse Projects

If the project consists of any existing structures, a Property Needs Assessment (PNA) must be submitted at the time of application. The PNA will evaluate the current condition of the asset(s) and include a cost estimate for any critical, immediate and long term repairs. The PNA must be prepared by an IHDA approved vendor. The approved vendors list may be found on the IHDA website (www.ihda.org). The selected vendor cannot be the design architect for the project nor can they prepare the developers scope of work for the project. Please refer to the current Authority Qualified Allocation Plan (QAP) or contact the Authority for guidance in the preparation of the PNA.

The completed project drawings must be current (≤ twelve months old) and include the following:

- Complete Civil Engineering Drawings, including, but not limited to, location map, site erosion plan, site utilities plan, site grading plan (if regarding work is required), site parking plan, pavement details if new pavement or an overlay of the existing pavement is required), curb details (if repair or new curb work is required), curb ramp details (if new curb ramps are to be provided), sidewalk details (if new sidewalks are to be provided), topographical survey, existing site drainage, road profiles (if applicable), and the indication of the flood plain limits (if applicable).
- Complete Architectural Drawings, including, but not limited to the following:
  - Site plan: including a project data schedule indicating building and zoning code information; parking data; a table indicating unit mix and apartment sizes; and parking layouts.
  - Floor plans of the typical building or if there are various types of buildings, floor plans of each type. These plans should be dimensioned, indicate the rehabilitation work to be performed in each type of apartment, the type of existing floor framing and the direction of the span.
  - Building elevations (front, rear, and sides) indication the location and type of work to be performed and the heights of the various floors from grade to finish first floor and finish floor to floor heights thereafter.
  - Wall sections indicating existing wall and floor construction and any work that is to be performed.
  - Detail sheets including stair details (if replacing the stairs), kitchen details (if replacing cabinets), door schedules, room finish schedules, bathroom details (if renovation bathrooms), large scale drawings of the typical apartments, large scale drawings of the common areas, accessibility compliance, and all other necessary details required for a complete set of architectural drawings.
  - Any proposed modifications complying with the applicable accessibility requirements.
- Complete Mechanical Drawings including, but not limited to, duct layouts (if altering the existing duct layout or installing new ducts), location of the HVAC equipment including condensing units, piping layouts (if applicable), if new hot water heating system, large scale boiler room layout, equipment schedules, and roof penetration details (if applicable).
- Complete Plumbing Drawings, including, but not limited to, location of the existing incoming water service, new hot and cold-water distribution piping (if applicable), existing storm water drainage piping (if applicable), new sanitary sewer piping (if applicable), new plumbing fixture and equipment schedules, new soil waste and vent diagrams (if applicable), and new water distribution diagrams (if applicable).

- Complete Electrical Drawings including, but not limited to, location and height of all existing switches and outlets, location of all existing lighting fixtures, location of all existing electrical panels, location of the incoming electric service, size of the incoming electric service, electric riser diagram (if providing a new building service), main distribution panel diagram (if providing a new main panel), electric panel schedules (if applicable), large scale floor plan of the electrical equipment room(if applicable), location of all existing or new exit and emergency lighting, location of all existing or new fire alarm audio visual devices, location of all existing or new pull stations, site lighting plan.
- Complete Landscape Drawings including but not limited to location of all trees, shrubs, berms, and sod/grass areas, material schedules, and required details for a complete set of landscape drawings
- Complete Fire Protection Drawings (if applicable)
- Green Development Plan outlining the integrated design approach used for this development.
- General description of construction materials and mechanical systems
- For projects that fall within the New Madrid Seismic Zone, a certification statement attesting to the fact that the buildings meet the seismic design requirements for earthquake resistant buildings.
- Project specifications and design manual outlining the necessary material, installation and other requirements to complete the scope of work for the successful construction of the project. This information shall be presented in the most current Construction Specifications Institute (CSI) format.
- A current (≤ twelve-months old) ALTA/ACSM Land Survey
- A current (≤ six-months old) Phase I Environmental Assessment. Please include all the assessment requirements under "New Construction" above.

SECTION 3.00 - FEES

The Authority shall review the architectural fees associated with the development to insure they are proper, fair and reasonable. The Authority has evaluated the architectural fees from past Authority financed projects. These fees were based on the percentage of the construction costs (site work, general requirements, construction contingency, general contractors overhead and profit, construction permits and fees). As such, the architectural fees listed below reflect the maximum percentage the Authority will accept as a reasonable fee for architectural services. Higher percentages are acceptable but the developer will be responsible to pay the difference between the higher percentage and the percentage in the table below. The fees shall include the following:

- Preparation of plans and specifications including consultations, estimates, and professional engineering services typically associated with the architectural portion of the plans, including structural design. Architectural fees should not include any work or contractual obligations of other professional services such as: surveys, soil borings, and third party consultant reports.
- General administration and overall supervision of construction.
- Approving payment vouchers to the contractor.
- Approval and acceptance of completed construction.

- The "Architect of Record" **will not** be permitted to act as the General Contractor without the written approval of Authority. If the "Architect of Record" sub-contracts any portion of his work, excluding professional engineering services, the difference between the architect contract fee and the sub-contractors' fee will cause a reduction in the Developers' Fee.

Total Construction Costs $	% Architect Fee (New Construction)	% Architect Fee (Renovation)	% Civil Engineering Fee
0-1,000,000	5.5	7.5	2.0
1,000,001-5,000,000	5.0	7.0	1.8
5,000,001-10,000,000	3.5	5.5	1.5
10,000,001-15,000,000	3.0	4.5	1.3
15,000,001-25,000,000	2.5	4.0	1.0
Over 25,000,000	2.0	3.5	1.0

SECTION 4.00 - CODES AND REGULATIONS

The project shall comply with applicable zoning ordinances (including variances or amendments), these standards and building codes. The project shall obtain all necessary building permits and required inspections to obtain a certificate of occupancy for conversion/new construction, or a final approval for rehabilitation/renovation projects.

In addition, the development shall incorporate design and compliance features mandated by the 2006 edition of the International Building Code, included but not limited to: International Residential Code, International Fire Code, International Mechanical Code, International Fuel Gas Code, International Energy Conservation Code, International Property Maintenance Code, International Existing Building Code, Current Edition of the National Electrical Code, Current Edition of the Illinois State Plumbing Code, Minimum Property Standards for Housing (MPS) U.S. Department of Housing and Urban Development (HUD),The Federal Fair Housing Act, Lead-Based Paint regulations 24 CFR Part 35, Section 504 of the Rehabilitation Act of 1973, Asbestos regulations as implemented by HUD, EPA and the Illinois EPA , 24 CFR Parts 3280 and 3285 of the Model Manufactured Home Installation Standards, the Illinois Accessibility Code and other design criteria. Compliance with State and/or Federal accessibility requirements and Authority Energy Efficiency Standards is mandatory.

If there is a conflict between the requirements of the applicable codes and/or these standards, the most stringent requirement will prevail. If there are any questions regarding the codes, the Developer or his architect should consult with Authority Architectural Services staff to determine whether the proposed development would be subject to such requirements. During the construction process, owners and/or architects will be asked to certify compliance with applicable regulations. The Authority or its representatives will check for compliance with standards set forth by federal, state and local regulations.

The following codes and regulations should to be used in preparation of the drawings and specifications:

4.01 Local Building Codes: In areas where there is no local governing building code, the requirements indicated in the **2006 International Code Package** will apply.

4.02 Fair Housing Act applies to all **new** multi-family housing consisting of four or more dwelling units built for first occupancy after March 13, 1991.

The "Architect of Record" will be required to survey the entire project and certify compliance with the Fair

Housing Act for those buildings built for first occupancy after March 13, 1991 and buildings where the last building permit or renewal thereof was issued after June 15, 1990 before any new addition or alteration to those buildings will be approved by the Authority

4.03 Illinois Accessibility Code applies to all "public facilities" and "multi-story housing units" as defined and governed by the EBA and located, in whole or in part, within the legal geographic boundaries of the State of Illinois, unless specifically exempted. This Code is applicable when work involving new construction of PROJECTS containing five or more units, alterations, additions, historic preservation, restoration, or reconstruction in whole or in part begins after the effective date of this Code.

The Illinois Accessibility Code together with the Environmental Barriers Act and the standards incorporated by reference identified in Section 400.120 has the force of a building code and as such is law in the State of Illinois.

4.04 The **Guidelines** applies to all buildings owned or financed in whole or in part by the Authority.

4.05 Section 504 of the Rehabilitation Act of 1973 (29 U.S.C 794) applies to recipients of federal financial assistance.

4.06 Illinois State Plumbing Code (current edition)

4.07 Title 89 Illinois Administrative Code, Subpart B: Supportive Living Facilities

SECTION 5.00 - CHANGE ORDERS and CONTINGENCY FUNDS

When a modification to the construction contract is requested, an AIA G701Change Order form executed by the owner, general contractor and architect must be submitted to the Authority's Construction Field Representative at least one month prior to submitting the change order to the Authority for payment. The developer must also include along with the change order a letter clearly explaining the reasons for the change order and any other documents to justify the change.

The Authority Construction Staff will log in the change order and forward to the Architecture Staff to determine if it qualifies for contingency funding. If it does not qualify for contingency funding, the funding will have to be made from some other source. The Architecture Staff will inform the Construction Staff of the funding determination, who will then notify the owner of that determination. It is important to keep change orders up-to-date to avoid delays in payment.

The construction contingency will only be available to fund unforeseen construction costs and not to be used to fund soft costs, developer fees, up-grades and betterments, reserves or other costs the Authority deems ineligible at the time. When the project has been determined by IHDA Staff to be substantially complete and sufficient funds remain in the construction contingency, the Developer may seek reimbursement from the construction contingency for previously paid change orders funded from the other source. Any request to use contingency funds in this instance must be submitted in writing to the Authority for its approval.

The following criteria will be followed to determine the allowance and funding source for change orders:

1. **Concealed Condition –** Unforeseen items may be approved for payment from the construction contingency.

2. **Construction Cost Increases –** If the cost increases were caused by market uncertainty and the rapid rise in construction material costs, the funds from the construction contingency may be used to pay

for the cost increases

3. **Contractor Negligence –** Any damage or neglect by the Contractor will not be paid from the construction contingency but may be paid from the available escrowed realized developer fee, if approved by the Developer, or another source of funding.

4. **Building Code Related Issues –** are foreseeable costs and will not be approved for payment from the construction contingency but may be paid from the available escrowed realized developer fee, if approved by the Developer, or another source of funding.

5. **Upgrades (Betterments) –** will not be approved for payment from the construction contingency but may be paid from the available escrowed realized developer fee, if approved by the Developer, or another source of funding.

6. **Architects, Engineers and Contractors Errors and Omissions and Additional Architectural and Engineering Fees -** will not be approved for payment from the construction contingency but may be paid from the available escrowed realized developer fee, if approved by the Developer, or another source of funding.

7. **Building Inspector or any Municipal Official Requirements –** if not required by the Building Code, will not be approved for payment from the construction contingency but may be paid from the available escrowed realized developer fee, if approved by the Developer, or another source of funding.

SECTION 6.00 – DESIGN AND PLANNING

The following standards are being provided as an aide in the development and design process. These requirements represent the minimum standards as imposed by the Authority. In addition to the previously mentioned Codes and Regulations, the construction must also be consistent with recognized standards and accepted practices in the construction industry.

These standards are primarily for new construction, however any new work done in the rehabilitation or adaptive reuse, the Project shall comply with the standards for the new materials. If unsure as to which standards shall apply, IHDA Architectural Services staff should be consulted.

As these Projects will sustain affordable housing over the loan term the Authority encourages the incorporation of innovation and cost effectiveness whenever possible. The Authority recommends careful consideration of the material selection for the project. Attempts should be made to incorporate long lasting and durable materials that will minimize unnecessary maintenance and replacement.

SECTION 7.00 - SITE STANDARDS

7.01 All roofs, paved areas, yards, courts and courtyards shall drain into a separate storm sewer system, or a combined sewer system if permitted by the jurisdiction, or to an approved place of disposal.

7.02 Where approved, storm water from the roofs, paved areas, yards, courts and court yards, may be permitted to discharge onto flat areas, such as streets, parking areas, or lawns, provided that the storm

water flows away from the building.

7.03 Storm water discharge and disposal must be acceptable to the local authorities and the State of Illinois Environmental Protection Agency.

7.04 Finished grade at the exterior perimeter of the building shall be not less that 4-inches below the top of the exterior face of the foundation wall and slope away from the building at a slope of 5% for a minimum of 10-feet measured perpendicular to the wall.

7.05 Buildings located within the 100-year flood plain should be avoided and may not be financed.

7.06 Projects may not be located in proximity to environmental hazards.

7.07 Sites that are divided by a heavily traveled major traffic artery should be avoided and may not be financed.

7.08 Parking Areas and Sidewalks

7.09 The design of private internal roadways and sidewalks must meet the local design requirements to enable them to be acceptable to the municipality in order to qualify for future dedication to the municipality. Parking areas must be paved and graded for proper drainage with a minimum and maximum gradient as set forth in the HUD Minimum Property Standards.

7.10 Parking spaces shall be provided as per local zoning ordinance but in no case be less than one parking space per dwelling unit except for the following:

1. Supportive Living Facilities for the Frail Elderly (Illinois department of Public Aid)- one (1) parking space shall be provided for each 10 units plus one (1) parking space for every two staff members and ten percent (10) of the total number of units for visitor parking or as per local ordinance whichever is greater.
2. Single Room Occupancy (SRO): one (1) parking space shall be provided for each 10 units or as per local ordinance whichever is greater.
3. Supportive Family Housing: one (1) parking space shall be provided for each 5 units or as per local ordinance whichever is greater.

7.11 A minimum of two percent (2%), but not less than one of the total number of parking spaces provided shall be accessible or as per local ordinance whichever is greater. When accessible parking spaces are provided, one space in every 6 or fraction thereof shall be van accessible.

Exception: Where parking is provided for all residents, one accessible parking space shall be provided for each accessible dwelling unit. Where parking is provided for only a portion of the residents, an accessible parking space shall be provided on request of the occupant of an accessible dwelling unit.

7.11.1 Each accessible parking space shall have its own access aisle and all access aisles shall blend to a common level with an accessible route.

7.11.2 The minimum size of a standard parking space shall have a minimum width of 8-feet and a minimum depth of 18 feet. In addition, the minimum size of an accessible parking space shall have a minimum width of 8 feet and a minimum depth of 18 feet and an access aisle with a minimum width of 8 feet and a minimum depth of 18 feet. The access aisle shall adjoin and be connected directly to an accessible route. The slope of the accessible parking space and the adjacent aisle shall be no greater than 2% in all

directions.

7.11.3 Double loaded 90-degree parking areas shall be a minimum width of 60-feet and single loaded 90 degree parking areas shall have a minimum width of 42-feet. The intermediate aisle shall be a minimum of 24-feet in width.

7.11.4 When covered parking is provided a minimum of two percent (2%) of the covered parking spaces be accessible. If garages are provided, the minimum inside dimension of the garage shall be 14foot-2inches and the door width shall be 10 foot wide plus a service door.

7.12 Concrete curbs at all access drives and parking lots must be provided.

7.13 Access for fire-fighting equipment must be provided in accordance with the requirements of the local authorities. A cul-de-sac located at the termination of any roadway must have a minimum diameter of 100-feet.

7.14 Accessible parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes. They shall not have a slope greater than 2% in all directions.

7.15 All sidewalks along the accessible route must be a minimum of 5-feet in width with the exception of service walks which may be 3-feet in width.

Exception: A minimum 6-foot wide sidewalk is required when parking spaces abut sidewalks and the edge of the sidewalk becomes the wheel stop. If pre-cast concrete wheel stops are provided and set a minimum of 30-inches from the edge of the sidewalk to the centerline of the wheel stop, then a 5-foot wide sidewalk will be permitted.

7.16 Refuse collection stations must be on an accessible route and screened with permanent enclosures. Paved areas adjacent to the collection stations must be designed to provide adequate bearing for heavy garbage trucks.

7.17 Site lighting levels should be keyed to the requirements for security and occupant safety. Parking lots must be illuminated to a minimum of 1-foot candle. Building entry points, stairs, and any hazardous locations must be illuminated to a minimum of 4-foot candles. Street lighting must conform to the requirements of the local community.

SECTION 8.00 - BUILDING STANDARDS:

8.0 Foundations:

8.01.1 The developer must submit a soil report including a boring log. A minimum of 3-borings per every proposed building exceeding 2,000 SF foot print and a minimum of two borings along sidewalks and roadways projects. Borings shall extend to a minimum of 15 feet below the natural grade. For high-rise buildings at least one boring shall extend down to 100’ or hardpan below the natural grade.

8.01.2 Wall and column support footings shall be constructed of cast-in-place concrete and have a minimum compressive strength of 2,500psi @ 28 days. They shall be reinforced to accommodate the design loads. Timber, steel grillage, or other material used for

footings will not be permitted. Wall and column footings shall not bear on frozen ground or unsuitable soil.

8.01.3 Cast-in-place concrete, precast concrete and masonry foundation walls will be permitted and shall be designed to meet the requirements of the local building code. Wood foundation systems, rubble stone or any other similar materials used for foundation walls will not be permitted.

8.01.4 Trench foundations are permitted only with the approval of the Authority. The Authority staff may request structural calculations for trench foundations.

8.01.5 A under slab drainage system must be installed when the water table is 5-feet or less below the bottom of the floor slab to prevent hydrostatic pressure build-up from groundwater fluctuations

8.02 Exterior Walls:

8.02.1 Exterior wall facings may consist of 4-inch face brick, stone, concrete masonry units, aluminum siding, vinyl siding, metal lath and cement stucco, glass and aluminum curtain wall systems, prefinished steel panels, fiber cement siding, insulated precast concrete decorative panels, and/or wood siding.

8.02.2 Exterior Finish and Insulation System (EIFS) may be used in limited areas as an exterior facing with the approval of the Authority.

8.02.3 Special attention should be given to a review of the lintels and mortar joints when rehabilitating masonry structures. A detailed repair scheme must be incorporated in the plans and specifications including the clearly defined areas where lintel repair and tuckpointing work is to be performed.

8.03 Stairs:

8.03.1 Open risers are not permitted.

8.03.3 The undersides of nosings shall not be abrupt. The radius of curvature at the leading edge of the tread shall be no greater than ½ in. Risers shall be sloped or the underside of the nosing shall have an angle not less than 60 degrees from the horizontal. Nosings shall project no more than 1-1/2 in.

8.03.4 Outdoor stairs and their approaches shall be designed so that water will not accumulate on walking surfaces.

8.03.5 When stairs are installed along routes that are required to be accessible, there must be an alternative way to get between levels. If the alternative way is an elevator or lift, the stairs do not need to comply with ANSI A117.1-2003, Section 504. If the alternative way is a ramp, the stairs must comply with ANSI A117.1-2003, Section 405. When an accessible route consists of both a ramp and stairs, it is best if they are located in close proximity so people who can use only one of the two (such as the ramp), need not travel an unreasonable additional distance.

8.03.6 Exterior fire escapes shall not be permitted in new construction Projects but will be acceptable as a means of egress component in existing buildings only.

8.04 Patios and Balconies:

An accessible route shall connect at least one accessible entrance of each accessible dwelling unit with

those exterior and interior spaces and facilities that serve the accessible dwelling unit.

8.05 Roofing and Insulation Material:

All roofing and insulation material shall be ENERGY STAR rated.

8.06 Attic and Crawl Spaces:

Where crawl spaces are utilized, a minimum of one access opening of not less than 24-inches by 24-inches shall be provided. Where attic spaces are utilized, a minimum of one access opening of not less than 24-inches by 30-inches and a clear height over the access opening of 30-inches shall be provided.

8.07 Windows, Doors, and Skylights:

All windows, doors and skylights shall be ENERGY STAR rated for the Project climate zone, certified, and labeled for both U-Factor and Solar Heat Gain Coefficient. All glazing shall be double glazed Low-E glass with a maximum U-value of .35 for window unit.

SECTION 9.00 - DWELLING UNIT STANDARDS:

9.01 The following table indicates the Authority's minimum acceptable dwelling unit size:

Dwelling Type	Area (Inside dimensions)
Efficiency (Studio) Unit **not** including SRO Unit (see 9.01.1 below)	300 SF (New Construction) 250 SF (Rehabilitation)
Supportive Living Facility	300 SF for one occupant 450 SF for two occupants
One Bedroom Unit	525 SF
Two Bedrooms/One Bath Unit	700 SF
Two Bedrooms/One One-Half or Two Bath Unit	750 SF
Three Bedrooms/One Bath Unit	900 SF
Three Bedrooms/One One-Half or Two Bath Unit	950 SF
Four Bedrooms/Two Bath Unit	1100 SF
Five Bedrooms/Two Bath Unit	1250 SF

9.01.1 Single Room Occupancy (SRO) Unit:

A SRO unit shall contain not more than one habitable room consisting of not less than 180 square feet and not more than 250 square feet of floor area for new construction projects and not less than 150 square feet for rehabilitation projects, **excluding** the floor areas for bathrooms, toilet rooms,

laundries, pantries, foyers, corridors, storage spaces, stairways and closets.

Exception:
When financial assistance also includes the Illinois Department of Public Aid, the SRO unit shall have a minimum of 300 SF for a single occupant unit and 450 SF for a two-occupant unit. This is required for both new construction and rehabilitation projects.

9.01.2 Room Sizes:

Unit living rooms (excluding Efficiency, Studio, and SLF units) shall contain a minimum of 150 SF and have a minimum dimension of 10-feet in any horizontal dimension. All other habitable rooms shall have a minimum size of 100 SF, not including closets, and a minimum dimension of 9-feet in any horizontal dimension.

9.01.3 The minimum ceiling height in all habitable rooms shall be 7-feet 6-inches.

9.01.4 Carpet **shall not be** permitted as a floor finish in laundries, kitchens, and bathrooms.

9.02 Kitchens and their components shall be on an accessible route and comply with ICC/ANSI A117.1-2003.

9.02.1 A clear floor space of 30 inches by 48 inches that allows either a centered forward or a centered parallel approach by a person in a wheelchair shall be provided at all appliances in the kitchens. Clearances between the face of the countertop and the opposing countertop or wall shall be a minimum of 40 inches. In U-shaped kitchens, such clearances shall be a minimum of 60 inches. When forward approach is required at an appliance, a 48 inch minimum clearance will be required.

9.02.2 A clear floor space of 30 inches by 48 inches that allows either a centered forward or a centered parallel approach by a person in a wheelchair shall be provided at the kitchen sink in all Type B units.

Exception:
A clear floor space of 30 inches by 48 inches that allows a centered forward approach only with a 27 inch high opening at the sink shall be provided in all fully accessible units and Type A units.

9.02.3 The dishwasher, refrigerator, range hood and disposals shall be ENERGY STAR Rated.

9.03 Bathrooms shall be on an accessible route and shall comply with ICC/ANSI A117.1-2003.

9.03.1 Doors **shall not** swing into the clear floor space required for any fixtures in a fully accessible unit and a Type "A" unit.

Exception: Where the room is for individual use and a clear floor space complying with ICC/ANSI A117.1-2003, Section 305.3 is provided within the room beyond the arc of the door swing.

9.04 Grab bars shall be installed or structural reinforcement or other provisions made that will allow for the future installation of grab bars in the required locations.

Exception: The installation of grab bars shall be required in dwelling unit bathrooms that will be occupied by elderly, severely disabled people, and units that are required to be fully accessible.

9.05 Paints and stains, shall exceed EPA standards. They must be low Volatile Organic Compounds (VOC) paints marketed and meet the 50 g/L VOC threshold**.** Paints with the Green Seal Standard (GS-11) mark are certified lower than 50 g/L (for flat sheen) or 150 g/L (for non-flat sheen). Varnishes must not contain VOCs in excess of 100 grams per liter.

SECTION 10.00 – MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS

Penetrations of floor/ceiling assemblies and assemblies required to have a fire-resistance rating shall be protected in accordance with the latest edition of the applicable *International Building Code*, as well as: all cutting, notching, and boring in wood and steel framing.

10.01 Heating, ventilating, and air-conditioning systems:

10.01.1 Heating, ventilating, and air-conditioning systems shall be designed and installed according to the requirements of *the International Mechanical Code*, latest edition, or the local building code. They shall also comply with the efficient utilization of energy in accordance with the latest edition of the *International Energy Conservation Code.* Lastly, the United States Department of Energy ResCheck compliance verification and code requirements must be submitted to the Authority for review.

10.01.2 The installation and approval of fuel gas distribution piping and equipment, fuel gas-fired appliances, and fuel gas–fired venting systems shall be in accordance with the latest edition of the *International Fuel Gas Code* or the local building code which ever is most stringent.

10.01.3 A permanent factory-applied nameplate(s)shall be affixed to appliances on which shall appear in legible lettering, the manufacturer's name or trademark, the model number, serial number and seal or mark of the approved testing agency.

10.01.6 Any room within a residential unit that is used or intended to be used for living, sleeping, or family entertainment of any sort shall be provided with natural light and ventilation. The minimum glazing area shall not be less than 8% of the total floor area, and a minimum operable ventilation area open to the outdoors of 4% of the total floor area. Bathrooms, toilet rooms, kitchens, laundries do not require natural light but will require mechanical exhaust in accordance with the local building code.

10.01.7 The following equipment must be ENERGY STAR rated:

Bathroom exhaust fans	Room air conditioners
Air-source heat pumps	Boilers
Central air-conditioning	Ceiling fans
Dehumidifiers	Furnaces
Geothermal heat pumps	Insulation
Programmable thermostats	Ventilating fans

10.02 Plumbing

10.02.1 The Illinois State Plumbing Code, the local plumbing code, and these guidelines shall

govern all plumbing work performed on new construction and new work on the renovation, rehabilitation or preservation of existing buildings. Whenever there is a conflict in the requirements between the regulations, the more stringent requirement will prevail.

10.02.2 No Project shall be served by a well or septic system.

10.02.3 All plumbing shall be performed only by Illinois licensed plumbers and apprentice plumbers under the direction of a licensed plumber.

10.02.4 All premises intended for human habitation or occupancy shall be provided with a potable water supply. The potable water supply shall not be connected to non-potable water and shall be protected from backflow and back siphonage.

10.02.5 Closed water systems (as created by properly installed backflow prevention devices) shall have a properly sized thermal expansion tank located in the cold water supply as near to the water heater as possible with no shut-off valve or other device between the heater and expansion tank. In existing buildings with a closed water system, a properly sized relief valve may be substituted in place of a thermal expansion tank.

10.02.6 All equipment used for heating water or storing hot water shall be provided, at the time of installation of such equipment, with an appropriate relief valve or valves to protect against excessive or unsafe temperature and/or pressure.

10.02.7 Each dwelling unit shall have a floor drain installed near such fixtures as automatic clothes washers, water heaters, AC condensate line, etc. A floor drain shall be installed in all common area restrooms, laundry rooms, commercial kitchens, locker rooms, and common area bathing facilities

10.02.8 Sanitary wastes which cannot be discharged by gravity flow shall be discharged into a gas-tight, covered and vented sump from which the waste shall be lifted and discharged into a sanitary waste drain by automatic ejection pumping equipment.

10.02.9 Sumps and ejectors handling sub-soil drainage and footing drains shall not receive any sewage. Sumps and ejectors handling sewage shall not receive subsoil drainage and footing drains.

10.02.10 A sump pump and basin shall be provided in all elevator pits.

10.02.11 On renovation, rehabilitation or preservation projects, replacement of the lead pipe incoming water service will be required.

10.02.12 The water distribution piping from the water meter throughout the building shall be "Type L" copper or other IHDA approved material. Polybutylene and "Type M" copper water distribution pipe will not be permitted.

10.03 Electrical

10.03.1 The National Electrical Code, the local electrical code, and these guidelines shall govern all electrical work performed on new construction and new work on the renovation, rehabilitation or preservation of existing buildings. Whenever there is a conflict in the requirements between the regulations, the more stringent requirement will prevail.

10.03.2 The electric service to each dwelling unit shall be metered separately in all new construction projects. One central meter will only be permitted with a letter of approval

from the electric utility company.

10.03.3 The minimum electric service to a dwelling unit shall be 100-amperes.

10.03.4 All wiring from the main distribution panel through out the building shall be copper. Aluminum and copper-clad aluminum wiring shall not be permitted.

10.03.5 In existing buildings that have existing aluminum wiring, all switches and outlets rated 20-ampere or less directly connected to aluminum conductors must be marked CO/ALR.

10.03.6 Receptacles installed on 15- and 20-ampere circuits shall be of grounding type. Grounding-type receptacles shall be installed only on circuits of the voltage class and current for which they are rated.

10.03.7 All 125-volt, single phase, 15- and 20-ampere receptacles in the following locations shall have ground-fault circuit-interrupter protection:

- Bathrooms.
- Garages and also accessory buildings that have a floor at or below grade level not intended as habitable rooms and limited storage areas, work areas, and other similar use.
- Outdoors.
- Crawl Spaces at or below grade level.
- Unfinished basements.
- Kitchens where the receptacles are installed to serve the countertop surfaces.
- Wet bar sinks where the receptacles are installed to serve the countertop surfaces and are located within 6-feet of the outside edge of the edge of the wet bar sink. Receptacles outlets shall not be installed in a face-up position in the work surfaces or countertops.
- Rooftops.

10.03.8 All branch circuits that supply 125-volt, single phase, 15-and 20-ampere receptacle outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter.

10.03.9 In every kitchen, family room, dining room, living room, parlor, library, den, sunroom, bedroom and recreation room, receptacles shall be installed so that no point along the floor line in any wall space is more than 6-feet measured horizontally from a receptacle in that space. A wall space shall include any space 2-feet or more in width (including space measured around corners) and unbroken along the floor line by doorways, fireplaces, and similar openings. The space occupied by fixed panels in exterior walls, including sliding panels and the space afforded by fixed room dividers such as freestanding bar-type counters or railings.

10.03.10 Every dwelling unit in buildings serviced by natural gas shall be equipped with at least one approved carbon monoxide alarm in an operating condition within 15 feet of every room used for sleeping purposes and meet the requirements of Public Act 094-0741.

SECTION 11.00 - COMMUNITY FACILITIES

Community facilities such as offices, dining, mail pick-up, and other necessary functions should be situated where they can be easily found by the residents. Most of these facilities should be centrally located in close proximity of the primary entrance.

11.01 Where a community room is provided it shall have a kitchen that at a minimum has a sink, range/oven, refrigerator, base and overhead storage and complies with the requirements of Section 804 of ICC/ANSI A117.1-2003.

11.02 Common-use laundry facilities, if provided, should be in accordance with the Illinois Plumbing Code, shall be on an accessible route and comply with the following:

11.02.1 Provide one automatic clothes washer for every four apartments.

11.02.2 Provide one clothes dryer for every two washers.

11.02.3 Five percent (5%) of the total automatic washing machines and clothes dryers in laundry rooms shall be front loading.

11.04 Where washer and dryer hook-ups are provided in a dwelling unit in a multi-family development, the automatic washer and clothes dryer must be provided by the developer.

11.05 Tenant bulk storage shall be provided in a separate closet within the apartment unit or in a common tenant storage room, and the minimum size shall be as follows:

Dwelling Type	Area
1-bedroom unit	72 cubic feet
2-bedroom unit	128 cubic feet
3-bedroom unit	200 cubic feet
4-bedroom unit	288 cubic feet

11.05 If provided, bicycle storage facilities shall be located in exterior areas with bicycle racks, and/or in a separate room in the building or in a separate storage building.

SECTION 12.00 – MANAGEMENT, OFFICE AND MAINTENANCE SPACES

12.01 If the size of the project warrants a separate common space for the management staff and rental office, it should include an office large enough to accommodate a secretarial space, a waiting /reception area, at least one accessible public restroom, and a storage/coat closet. These areas must be located on an accessible route from the point of arrival and accessible to persons with disabilities. These areas may be in separate buildings, such as a clubhouse, or on the ground floor to allow for maximum site and building surveillance.

12.02 When a separate workroom or repair shop having vehicular access is provided, it should be appropriately sized and include storage facilities, a utility sink, toilet facilities, and work bench.

12.03 Refuse collection and compactor rooms should be mechanically ventilated and be in a room completely separated from the remainder of the building with walls and ceiling that has a fire rating of not less than 1-hour. Where the room is serviced by a trash chute, an automatic sprinkler head shall be provided at the top of the trash chute. Openings into the room shall be protected with a fire rating of not less than 1-hour and doors shall be equipped with closing devices. A concrete slab should directly link access from this area to the exterior pick-up point. Floor drains should be provided at these locations.

12.04 Refuse and laundry chutes shall not be used for any other purpose. The chutes shall have a fire resistive rating of not less than two-hours for buildings containing four or more stories and 1-hour in buildings less than four stories. An automatic sprinkler system shall be installed at the top of refuse and linen chutes and in their terminal rooms. Chutes extending three or more floors shall have additional sprinkler heads installed within the chute on alternate floors and be accessible for servicing.

12.05 Retail stores and other commercial space may not be included as part of the Authority financing.

12.06 Office facilities within the Project are substantially restricted by various rules and regulations. If office space is contemplated, it must be for the exclusive use of the tenants or for the operation of the building. The sponsor should discuss the plans with Authority's staff at the earliest opportunity.

SECTION 13.00 - RECREATIONAL FACILITIES STANDARDS

13.01 Indoor recreational facilities, if provided, shall be located within the Project and shall comply with the following **minimum** size requirements:

Dwelling Type	Area
50-100 dwelling units	600 square feet
101-300 dwelling units	800 square feet
301-500 dwelling units	1200 square feet

13.02 Outdoor recreation facilities, if provided must be on an accessible route. Swimming pools and wading pools must meet the Minimum Sanitary Regulations for the Design and Operation of Swimming Pools and Bathing Beaches by the Department of Public Health, State of Illinois, any local Public Health Department regulations and the Americans with Disabilities Act.

13.03 Play areas for younger children should be centrally located and surrounded by dwelling units. An accessible route must be provided to the play area. The ground surface of the play area shall be stable, firm, and slip resistant. Where play components are provided they should be ADA approved.

SECTION 14.00 - ACCESSIBILITY STANDARDS

All or some of the accessibility Codes and Acts listed below may apply to a particular project. When there is a

conflict in the design requirements of the various Acts and Codes, the most stringent requirements will prevail. If unsure as to which standards shall apply Authority Architectural Services staff should be consulted.

Fair Housing Act:

14.01.1 All new construction projects of four or more dwelling units and all buildings constructed for first occupancy after March 13, 1991 are required to comply with accessibility standards and design requirements mandated by Federal Fair Housing Act and ICC/ANSI A117.1-Latest Edition.

Illinois Accessibility Code:

14.01.2 Housing units that are owned of financed by a governmental unit (Authority) that consist of five or more dwelling units on each project site, shall comply with all requirements of Section 400.350, *Multi-Story Housing requirements* Section 400.360, *Requirements for Adaptable Dwelling Units* of The Illinois Accessibility Code. Renovation projects must comply with Section 400.510 of the Code to determine the level of accessibility required.

Section 504 of the 1973 Rehabilitation Act:

14.01.3 Projects that receive federal financial assistance must comply with Section 504 of the 1973 Rehabilitation Act and 1984 Uniform Federal Accessibility Standards (UFAS).

The Americans with Disabilities Act:

14.01.4 The common areas open for public use, such as a property management or rental office, shall comply with the requirements of The Americans with Disabilities Act (latest revision).

Local Building Codes:

14.01.5 Projects must comply with the adopted local building code. In areas where there is no local building code, the accessibility requirements in the International Building Code, latest edition will be in effect.

14.03 Technical Requirements:

14.03.1 For new constructed buildings that do not have an elevator, 100% of the total number of Ground Floor units must comply with the requirements of the Fair Housing Act and 20% of the total number of dwelling units must comply with the Requirements for Adaptable Dwelling Units, Chapter I, §400.360 of the Illinois Accessibility Code and.

14.03.2 For new constructed buildings equipped with an elevator, 100% of the total number of units must comply with the requirements of the Fair Housing Act and 20% of the total dwelling units must comply with the Requirements for Adaptable Dwelling Units, Chapter I, §400.360 of the Illinois Accessibility Code.

14.03.3 New construction projects that are recipients of federal financial assistance, in whole or in part, shall have a **minimum** of 5% of the total number of units or at least one unit (whichever is greater) constructed as being fully accessible for persons with mobility impairments. A **minimum** of an additional 2% of the total number of dwelling units or a least one unit (whichever is greater) must be suitable for occupancy by people with hearing or visual impairments. In projects where there is a variety of units are offered, at

least one of each type of unit, including town houses, must be accessible to persons who are mobility impaired. The development must offer the same choices and variety of units to persons with mobility impairments as those who are not mobility impaired. This requirement will overlap some of the other required code requirements and together will satisfy all of the accessibility code requirements.

14.03.4 For rehabilitation projects, Section 400.510 of the Illinois Accessibility Code will determine the level of accessibility required. In addition, projects that receive federal financial assistance will also be required to comply with 24 CFFR § 8.23, *Alterations of existing housing facilities.*

14.03.5 Unless technically infeasible, existing buildings where a change of occupancy occurs shall comply with the requirements for new construction mandated by the Illinois Accessibility Code and local building codes.

14.03.6 Common use areas exclusively for tenants and their guests must meet the requirements the Illinois Administrative Code and ANSI 117.1, latest edition.

14.03.7 The requirements described in Section 400.610 of the Illinois Accessibility Code will govern renovation of buildings of a historic nature and any requirements of the State of Illinois Historical Agency.

SECTION 15.00 - SUPPORTING LIVING FACILITIES (SLF)

An SLF is a residential setting in Illinois that provides or coordinates flexible personal care services, 24 hour supervision and assistance (scheduled and unscheduled), activities, and health related services with a service program and physical environment designed to minimize the need for residents to move within or from the setting to accommodate changing needs and preferences; has an organizational mission, service programs and a physical environment designed to maximize residents' dignity, autonomy, privacy and independence; and encourages family and community involvement.

15.1 Building Construction:

15.1.0 All SLF developments must be approved by the State of Illinois Department of Healthcare and Family Services. Written approval from DHFS must be provided to IHDA at the time the application is submitted. The SLF's architectural plans shall conform to Title 89, *Social Services,* Chapter 1: Department of Healthcare and Family Services, Subchapter d: *Medical Programs,* Part 146, Subpart B, *Supportive Living Facilities,* local Fire and Life Safety Standards for health care occupancy or the 1997 National Fire Protection Association Life Safety Code (NFPA) 101, Chapter 22, Residential Board and Care Occupancies and local building codes.

15.1.1 Each SLF shall meet accessibility standards as related to the Americans with Disabilities Act of 1990, the Illinois Accessibility Code, Section 504 of the Rehabilitation Act of 1973 (if applicable), the Fair Housing Act and the local building code.

SECTION 16.00 - MANUFACTURED HOUSING

The proposed manufacturer must have at least five years experience in manufacturing similar housing units. In addition, the installer/general contractor must have prior experience in setting and finishing manufactured housing. Manufactured housing units for multi-family applications will only be allowed for up to one-story in height. Manufactured housing units for single-family, detached units will be allowed for up to two-stories in height. The design, construction and installation of the Manufactured Housing must incorporate all applicable wind, live, dead, snow and seismic design loads including geotechnical characteristics based on the specific geographical site conditions. Manufactured housing must comply with the requirements of Title 24, Part 3280 Manufactured Home Construction and Safety Standards, Housing and Urban Development, the Authority Guidelines including the following modifications.

16.1.1 The minimum ceiling height in all habitable rooms shall be 7-feet 6-inches.

16.1.2 All exterior doors shall have a 32-inch clear width measured from the face of the door to the opposing stop when the door is open at 90-degrees and a minimum height of 80-inches.

16.1.3 All interior doors shall have a nominal 32-inch clear width measured from the face of the door to the opposing stop when the door is open at 90-degrees and a minimum height of 80-inches.

16.1.4 Living rooms shall contain a minimum of 150 SF and a minimum dimension of 10-feet in any horizontal dimension. All other habitable rooms shall have a minimum size of 100 SF not including closets and a minimum dimension of 9-feet in any horizontal dimension.

16.1.5 Hallways shall have a minimum horizontal dimension of 36 inches measured from the interior finished surface to the interior finished surface of the opposite wall.

16.1.6 Smoke detectors shall be hardwired with battery back-up.

16.1.7 Carbon monoxide detectors shall comply with the State of Illinois Carbon Monoxide Detector Act and shall be hardwired.

16.1.8 All Manufactured Housing must comply with the energy conservation requirements of the International Energy Conservation Code, latest edition, and the energy conservation measures outlined in these guidelines.

16.1.9 Water distribution system shall be “Type L” copper. Polybutylene piping will not be permitted for hot and cold water distribution.

16.1.10 All plumbing shall comply with the State of Illinois Plumbing Code and the HUD regulations, the more stringent requirement will prevail.

16.1.11 All wiring from the main distribution panel throughout the building shall be copper. Aluminum and copper-clad aluminum wiring shall not be permitted.

16.1.12 The minimum electric service to the dwelling unit shall be 100-amperes.

SECTION 17.00 - VISITABILITY

Visitablilty design criteria allow persons with disabilities, access to residential units by providing them with the opportunity to visit friends and family. It incorporates the following in all new construction, additions and alterations, and rehabilitation projects whenever practical and possible. Visitablility design

criteria will be required in all single-family, townhomes, single story dwelling units and multi-story dwelling units. In multi-story elevator buildings every unit shall be visitable, in multi-family non-elevator buildings only the ground floor units shall be visitable.

17.01 Design Considerations.

17.01.1 An accessible route must be provided from the point of arrival to the main entrance of each unit with a clear width of 36 inches and a running slope of not greater than 5% with a cross slope of not greater than 2%.

17.01.2 Each unit must have at least one zero-step entrance with a 36" wide entrance door. A zero-step entrance is one without a step at the entrance door and with less than ½" difference between the inside and outside surfaces, or with a threshold with less than a ½" rise. An overhang or porch roof is recommended to protect the entrance from the elements.

17.01.3 All doorways and passageways on the entry-level floor should be as wide as possible, 36" is the minimum width and 42" is recommended. Wider doorways and passageways make movement of people with assistive devices such as walkers and wheelchairs, easier, safer and with less damage to door frames and walls.

17.01.4 The main entrance door to each unit must be a minimum of 36 inches wide. All other doors on the main level shall be a minimum of 34 inches wide.

17.01.5 Provide an accessible powder room or a full bathroom on the main entrance floor in compliance with the requirements of Section 4.34.5 of the Federal Uniform Accessibility Code.

17.01.6 Provide clearances between all opposing base cabinets, counter tops, appliances, or walls shall be 40 in (1015 mm) minimum, except in U-shaped kitchens, where such clearance shall be 60 in (1525 mm) minimum.

17.01.7 Provide a clear floor space at least 30 in by 48 in (760 mm by 1220 mm) complying with 4.2.4 that allows either a forward or a parallel approach by a person in a wheelchair shall be provided at all appliances in the kitchen, including the range or cook top, oven, refrigerator/freezer, dishwasher, and trash compactor. Laundry equipment located in the kitchen shall comply with 4.34.7.

17.01.8 Provide a 36 inch grab bar on the back wall behind the toilet mounted 6 inches from the side wall and a 42 inch grab bar mounted 54 inches to the leading edge from the back wall. Walls behind grab bars must be reinforced.

SECTION 18.00 - ENERGY EFFICIENCY STANDARDS

18.01 The Authority will use the standards set forth in Chapter 4 of the 2006 International Conservation Code as a tool by which to measure plans, specifications and other data for proposed multifamily developments including single-family rent-to-own projects. When conflicts between Chapter 4 and any other Authority requirements, the most stringent requirements will prevail.

18.02 Proof of compliance with the above code must be in the form of a written report submitted to the Authority for review. The use of REScheck is recommended to verify compliance. It can be

downloaded for free from the U.S. Department of Energy website at http//www.energycodes.gov/rescheck.

SECTION 19.00 – GREEN CRITERIA

The Authority encourages the design and the incorporation of sustainable long lasting materials and techniques that minimize the impact of the development on the environment. The design should also strive to maintain a healthy home for the occupants and guests.

19.01 Mandatory Design Requirements.

19.01.1 Provide a landscape drawing including a tree or plant list certified by the architect or landscape architect that the selection of new trees and plants are appropriate to the site's soils and microclimate and do not include invasive species. Locate plants to provide shading in the summer and allow for heat gain in the winter. The minimum cost for the landscaping shall be 2% of the hard construction cost of the project.

> **Exception:** Authority approval will be required for the amount of landscaping provided for projects where the open land for landscaping is limited.

19.01.2 Install water-conserving fixtures in new construction projects and replacement fixtures in rehabilitation projects with the following minimum specifications: toilets-1.3 GPF; showerheads - 2.0 GPM; kitchen faucets - 2.0 GPM; bathroom faucets - 2.0 GPM.

19.01.3 The Heating and Air Conditioning system should exceed ASHRAE 90.1-2004 by 15 percent in single family and low rise residential projects.

19.01.4 The following appliances shall be ENERGY STAR rated: Clothes washers; dish washers; refrigerators and freezers; room or thru-the-wall air conditioners and water heaters.

19.01.5 Install the ENERGY STAR Advanced Lighting Package in all interior units and use ENERGY STAR or high-efficiency commercial grade fixtures in all common areas and outdoors.

19.01.6 Install daylight sensors or timers on all outdoor lighting, including the front and rear porches in all single family homes, townhomes, dwelling unit balconies, porches and patios.

19.01.7 All interior walls, ceilings and soffits must be painted with light colors. All interior paints and primers must comply with current Green Seal standards for low- Volatile Organic Compounds (VOC) limits.

19.01.8 Only biodegradable fluids may be used in hydraulic elevators.

19.01.9 Lauan wood veneer doors and Luan plywood underlayment shall not be permitted.

19.01.10 No products containing formaldehyde will be permitted.

Attachment A
Statement of Accessibility Compliance

I have prepared, or caused to be prepared under my direct supervision, the attached plans and specifications and state that, to the best of my knowledge and belief and to the extent of my contractual obligation, they are in compliance with federal fair housing regulations and the Illinois Accessibility Code.

Architect/Engineer: _____
Printed Name

Signature: _____

Firm: _____

Seal

Illinois Registration No.:_____

Date: _____