INTRODUCTION

The Standards for Architectural Planning and Construction (Standards) are being provided as an aid for owners/developers, architects and contractors for the design and construction of quality affordable housing. These Standards 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 housing 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 building’s energy efficiency, utilizing environmentally friendly materials, and insuring projects are more cost effective to construct and operate, the owner/developer, taxpayer and the end-user all benefit.

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

- Compliance with the Standards to the greatest extent feasible per the scope of work, funding sources and Property Needs Assessment.
- The quality of the building(s) 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 Standards are subject to change and modification, this version supersedes and replaces any prior versions. The Authority will also evaluate certain aspects of the Standards 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 the design concept at the earliest stage possible to provide guidance through the review process. Lastly, the Authority or it's agents shall have the right of access to the property for the inspection of all work performed and materials furnished to complete the project.
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1) Fees and Costs

IHDA reserves the right to utilize outside consultants or other professionals as it may deem appropriate, to conduct various aspects in conjunction with the Architecture and Construction Services functions related to the completion of the project. IHDA shall determine if some or all of these costs shall be funded by the borrower/developer.

Only fees and cost incurred relating to the financed project shall be permitted. IHDA will not pay for fees and costs relating to future phases of the project.

The Authority shall review the architectural and general contracting fees associated with the development to insure they are proper, fair and reasonable. The Authority has evaluated the fees from past Authority financed projects. These fees were based on the percentage of the construction costs (site work, general requirements, general contractor’s overhead and profit, construction permits and fees). As such, the architectural and general contractor fees listed below reflect the maximum percentage the Authority will accept as a reasonable fee for services. Higher percentages for the architectural fees are acceptable but the owner/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:

Architectural

1.01 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 shall not include any work or contractual obligations of other professional services such as: surveys, soil borings, and third party consultant reports.

1.02 General administration and overall supervision of construction.

1.03 Approving payment vouchers to the contractor.

1.04 Approval and acceptance of completed construction.

1.05 The “Architect of Record” will not be permitted to act as the general contractor without the written approval of the Authority. If the “Architect of Record” sub-contracts any portion of his work, excluding professional engineering services, the difference between the architect’s contract fee and the subcontractors’ fee will cause a reduction in the Developers’ Fee.

<table>
<thead>
<tr>
<th>Total Construction Costs $</th>
<th>% Architect Fee (New Construction)</th>
<th>% Architect Fee (Renovation)</th>
<th>% Civil Engineering Fee</th>
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<td>0-1,000,000</td>
<td>5.5</td>
<td>7.5</td>
<td>2.0</td>
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<td>1,000,001-5,000,000</td>
<td>4.8</td>
<td>6.7</td>
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<td>5,000,001-10,000,000</td>
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<td>5.9</td>
<td>1.5</td>
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<td>15,000,001-25,000,000</td>
<td>2.7</td>
<td>4.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Over 25,000,000</td>
<td>2.0</td>
<td>3.5</td>
<td>1.0</td>
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</table>

General Contractor

1.06 The general contractor (GC) is allowed “Profit” in the amount of 6%, “Overhead” in the amount of 2% and “General Conditions” (a.k.a. general requirements) in the amount of 6%, all of which are maximum amounts calculated from the hard construction costs. Profit is defined as the proceeds of transaction minus the cost. Overhead being the expenses necessary to conduct a business. Cost shall also include those specific to the project and include transportation, travel expenses, temporary housing etc.

Cost shall also include those specific to the project and include transportation, travel expenses, temporary housing etc.
Overhead shall be eliminated if there is an identity of interest between the owner/developer and general contractor.

General conditions are the functions needed to complete the construction phase and shall include the following costs: project superintendent, surveys, plans/printing, material testing, communications, mobilization, temporary heat and utilities, portable toilets, temporary fencing, signage, OSHA protection, field office, hoisting equipment, security disposal, photos, cost certifications, audits, mock-ups, final clean and general labor.

Finance, holding charges or other types of interest shall be included in the Overhead or General Conditions calculation.

Payment for any shop drawings will be limited to 5% of the total cost for that line item.

The construction budget shall include any costs resulting from scheduling delays or seasonal constraints such as winter conditions, water extraction from recent rains, etc.

When a contractor is acting in the capacity of a “GC” they shall provide all the functions typically associated with the position. The GC is responsible for the overall construction management aspects and tasks involved from the Project’s start-up through final completion. Functions include (but are not limited to): scheduling, coordination of the trades, supervision, safety, program compliance, monitoring, etc. As such the Authority will not allow for a “Straw” GC or a firm which reaps the benefits and fees associated with the GC title but in reality subcontracts these functions to another GC. The Authority will allow the GC functions to be subcontracted out but will only pay once for these services. Subsequently the GC needs to be on the site during construction and at least daily. Similarly any side agreements to the contrary or kickbacks will result in forfeiture of any future work with the Authority.

Limited partnerships, joint ventures and other types of associations between the owners and the general contractor shall be subject to the Authority’s limitations on Overhead.

In all instances where there is a Construction-Cost Plus contract or other contract agreement that may result in cost savings at the completion of the Project, the disposition of any savings shall be in the sole discretion of IHDA.

Material suppliers for construction related products shall be identified on the contractors sworn accordingly.

2) 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.

All jurisdictions in the state of Illinois shall comply with the 2012 International Energy Conservation Code.

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 owner/developer or his architect shall consult with Authority Architectural Services staff to determine whether the proposed development would be subject to such requirements. During the construction process, owners/developers 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 shall to be used in preparation of the drawings and specifications:

2.01 **Local Building Codes**: In areas where there is no local governing building code, the requirements indicated in the **2012 International Code Package** will apply. IRC Section R313 is deleted.

2.02 2012 International Energy Conservation Code – Mandatory in all jurisdictions in the state of Illinois.

2.03 **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.

2.04 **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.

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

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

2.07 **Illinois State Plumbing Code (current edition)**

2.08 **National Electrical Code (current edition)**

2.09 **Minimum Property Standards for Housing (MPS) U.S. Department of Housing and Urban Development (HUD)**

2.10 **24 CFR Parts 3280 of the Manufactured Home Construction and Safety Standards**

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

2.12 **Lead Based Paint Hazards**: The Project shall comply with the applicable lead based paint regulations as outlined in the Authority’s Lead Based Paint Compliance Guide. Which can be found at: [http://www.ihda.org/developer/architectureConstructionServices.htm](http://www.ihda.org/developer/architectureConstructionServices.htm). All federally-assisted projects having units constructed before 1978 must comply with Title X of the Housing and Community Redevelopment Act of 1992 regulations found in 24 CFR Part 35 dated September 15, 1999, and the Illinois Lead Poisoning Prevention Code, 77 IL. Admin. Code 845. In addition all properties and/or units must comply with the Environmental Protection Agency, final rule developed under the Toxic Substances and Control Act specifically 40 CFR Part 745, as it relates to the Lead Renovation, Repair, and Painting Program.

2.13 **Asbestos Containing Materials**: All federally-assisted projects must comply with EPA 40 CFR 61.145 and all other HUD, EPA, IEPA and Illinois Department of Public Health regulations.

2.14 **Radon**: All federally-assisted projects must comply with the Illinois Emergency Management Agency Radon program and the EPA's radon guidelines. When radon mitigation is required at a minimum a passive-future active system shall be installed. For further information, visit: [http://radon.illinois.gov/](http://radon.illinois.gov/) and [http://www.epa.gov/radon/index.html](http://www.epa.gov/radon/index.html)
2.15 Mold considerations:
Fact Sheets from IDPH:
http://www.idph.state.il.us/envhealth/factsheets/mold.htm
http://www.idph.state.il.us/envhealth/factsheets/moisture.htm
EPA Mold Site: http://www.epa.gov/mold/

2.16 Illinois State Prevailing Wages or Federal Davis-Bacon Prevailing Wage requirements will be required on IHDA financed projects having construction related activities. Section 3 will apply were applicable. See links below to respective guidelines and websites.

- **IHDA Davis Bacon Guide**
  http://www.ihda.org/developer/architectureConstructionServices.htm

- **Illinois Prevailing Wage Website**
  http://www.state.il.us/agency/idol/RATES/RATES.HTM

- **Section 3 Compliance Guide**
  http://www.ihda.org/developer/architectureConstructionServices.htm

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**CONSTRUCTION PHASE**

3) Preconstruction Meeting

The preconstruction conference is convened by IHDA prior to the construction start. The sponsor, their architect and the general contractor must attend the meeting. In addition, the sponsor’s and GC’s representative responsible for completing and forwarding the various documents should be present.

The following items will be reviewed at the preconstruction meeting:

- **Payout Procedures for both sponsor and GC.**
  - IHDA does not pay for stored materials, only installed materials.
  - Retention reduction; 10% retention must be retained up to 95% completion, then reduced to 5% if occupiable, has C of O, G704, IHDA Permission to Occupy, IHDA Completion Certificate and IHDA inspector approval. Retention does not apply to change orders, insurance, bonds or permits.

- **Wage Guidelines (Davis Bacon or Illinois Prevailing Wage whichever is applicable).**

- **Section 3 Hiring Guidelines**, if applicable.

- **Change Order Process**

- **Lead Based Paint and Asbestos Containing Material Regulations**, if applicable.

4) CHANGE ORDERS and CONTINGENCY FUNDS

When a modification to the construction contract is requested, an AIA G701 Change Order form executed by the owner/developer, 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 owner/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 IHDA Construction Field Representative needs to verify the pre-existing condition and the change order’s finished product. It is the GC’s responsibility to fully document the before and after conditions and provide the Authority with photographs, if requested.

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

Failure to submit change orders in a timely manner may result in payment delay or non-payment. The owner/developer assumes all risk (both monetary and construction rework) in completing change order work without prior IHDA approval. Any non-approved change order work completed which results in non-compliance with any building, accessibility, sustainability, municipal codes or IHDA standards will be the responsibility of the owner/developer.

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 \( \geq 75\% \) complete and sufficient funds remain in the construction contingency, the owner/developer may seek reimbursement from the construction contingency for all new change orders (including up-grades or betterments) and previously paid change orders funded from any other source.

Any request to use contingency funds in this instance must be submitted in writing to the Authority for its approval.

Construction contingency funds are available only to the owner/developer and shall be reflected accordingly on the owner’s sworn statement. Contractors shall not include any contingency amount in their bid. Contractors shall not enter into any agreement with the owner in accessing or splitting owner contingency funds. In addition there shall be no utilization of cost savings (difference between contractors bid and actual subcontractor amount) on the project without prior approval from IHDA. Cost savings under a fixed price contract do not automatically accrue to the Contractor or owner.

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

- **Concealed Condition** – Unforeseen items may be approved for payment from the construction contingency.
- **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.
- **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.
- **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.
- **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.
- **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.
- **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.
- **Separate contracts outside of the General Contract:** When a separate contract is let by the owner for work to be performed outside of the General Contractor’s Scope of work and there are
additional costs incurred, these costs will **not** be paid from the construction contingency. A separate contingency should be established within that contract to address any cost overruns.

i. Any additional architectural, engineering, or other services outside of the scope of work that may be required will not be paid from the construction contingency but may be paid from the Developer’s Fee or some other source of funding.

### 5) Construction Close Out

**Prior to final project close out, several criteria must be met for IHDA construction and architectural staff to give their final approval.**

When the project is 95% complete, prior to final project close out, several criteria must be met in order for Construction and Architectural Services to give their approval to reduce retention to 5%.

1. The building must be occupiable.
2. The building must have a Certificate of Occupancy from the governing jurisdiction.
3. Two copies of the Architect G704 must be submitted to the Construction Field Representative.
4. Two copies of the IHDA Certificate of Completion (Form CD-4) must be submitted to the Construction Field Representative. Showing hold back for punchlist items. Form can be found at: [http://www.ihda.org/developer/architectureConstructionServices.htm](http://www.ihda.org/developer/architectureConstructionServices.htm)
5. Two copies of the IHDA Permission to Occupy must be submitted to the Construction Field Representative. Form can be found at: [http://www.ihda.org/developer/architectureConstructionServices.htm](http://www.ihda.org/developer/architectureConstructionServices.htm)
6. IHDA Construction Field Representative approval.
7. The design architect shall complete and forward the applicable UFAS or IAC checklist for the entire project prior to the G704 Architects Substantial Completion. Checklists can be found at: [http://www.hud.gov/offices/fheo/library/UFASAccessibilityChecklistforPHAs-5-7-08.pdf](http://www.hud.gov/offices/fheo/library/UFASAccessibilityChecklistforPHAs-5-7-08.pdf) [http://www.illinoisattorneygeneral.gov/rights/environmental_barriers.html](http://www.illinoisattorneygeneral.gov/rights/environmental_barriers.html)
8. For projects receiving tax credits for Enhanced Accessibility and/or Green Initiatives, IHDA Architectural Services final inspection approval.
   a. At final project close-out: Projects awarded funding based on scoring in any green category must submit the applicable 3rd party certification, green maintenance/tenant manual, and videos (if applicable).

When the project is 100% complete including punchlist items, the Construction Field Representative will verify and inform the Construction Field Representative Supervisor. The Construction Field Representative Supervisor will approve final 5% retention release.

### DESIGN PHASE

### 6) Plan Review Process

Once the Authority has determined the project is feasible, the owner/developer 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 initial closing. Any major modifications to the project after architectural approval and before initial closing must be approved by the Authority and possibly the IHDA Board.

Before construction begins, two signed and sealed copies of the complete “For Construction” drawings (one full size and one half-size), two specifications and a CD with PDFs of the 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/developer, 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.

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

New Construction

6.01 Complete Civil Engineering Drawings, including, but not limited to:
- Location map.
- Site erosion plan, site utilities plan, site grading plan and site drainage plan.
- Site parking plan, pavement details, curbs details, curb ramp details, sidewalk details, and road profiles (if applicable).
- Topographical survey.
- Flood plain information.
- Other necessary details that appear on a complete set of civil engineering drawings.

6.02 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
- Floor plans.
- Building elevations.
- Interior elevations.
- Wall sections.
- Stair details, kitchen details, bathroom details.
- Door schedules, room finish schedules.
- Large scale drawings of the typical apartments, large scale drawings of the common areas, accessibility compliance.
- Other necessary details required for a complete set of architectural drawings.

6.03 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.
- Other necessary details required for a complete set of mechanical drawings.

6.04 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.
• Other necessary details required for a complete set of plumbing drawings.

6.05 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.
• Other necessary details required for a complete set of electrical drawings.

6.06 Complete Structural Engineering Drawings including, but not limited:
• Foundation plan, footing and pier schedules, foundation and footing sections.
• Floor framing plans, roof framing plan, structural steel sizes and layout.
• Column schedule, connection details.
• Other necessary details required for a complete set of structural drawings.
• Truss and panel shop drawings shall be submitted to the Authority prior to installation.

6.07 Complete Landscape Drawings including but not limited to:
• Location of all trees, shrubs, berms, and sod/grass areas.
• Material schedules.
• Other necessary details required for a complete set of landscape drawings.

6.08 Complete Fire Protection Drawings (if applicable). Fire protection shop drawings shall be submitted to the authority prior to installation.

6.09 Verification that the drawings comply with the 2012 International Energy Conservation Code. (REScheck, COMcheck or equal).

6.10 Green Development Plan outlining the integrated design approach used for this development.

6.11 Complete soils boring (geotechnical) report describing the subsurface exploration, analysis mining hazards, including mining maps, and geotechnical recommendations for the site.

6.12 A Structural Design Narrative prepared by the “Architect of Record” or Structural Engineer indicating the structural design data used for the site, including but not limited to live loads (e.g., floor and roof live loads), ground snow load, wind load (e.g., basic wind speed, wind exposure category, etc.), earthquake load (e.g., building seismic design category, site class, etc.), flood design data (if applicable) and any prescriptive construction detailing considered.

6.13 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.

6.14 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.
6.15 A current (≤ six months old) ALTA/ACSM Land Title Survey.

6.16 A current (≤ twelve 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](http://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.
- Noise considerations.
- Site plan showing all major site features, buildings, roads, walks, utilities, etc.
- Flood plain information
- Wetland information
- Mining information
- Seismic information
- Endangered Species
- Completion of the IHDA Phase I Environmental Consultant Report Requirements. The IHDA Phase I Environmental Consultant Report Requirements may be found on the IHDA website ([www.ihda.org](http://www.ihda.org)).

**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 IHDA PNA standards can be found on the IHDA website ([www.ihda.org](http://www.ihda.org)). The selected vendor cannot be the design architect for the project nor can they prepare the owners/developers scope of work for the project.

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

6.17 Complete Civil Engineering Drawings, including, but not limited to:

- Location map.
- Site erosion plan, site utilities plan, site grading plan (if re-grading work is required), and existing site drainage plan.
- 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) and road profiles (if applicable).
- Topographical survey,
- Indication of the flood plain limits (if applicable).
- Other necessary details that appear on a complete set of civil engineering drawings.

6.18 Complete Architectural Drawings, including, but not limited:

- 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 shall 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) indicating 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 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.
- Other necessary details required for a complete set of architectural drawings.

**Truss and panel shop drawings shall be submitted shall be submitted to the authority prior to installation. (If applicable.)**

### 6.19 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.
- Roof penetration details (if applicable).
- Other necessary details required for a complete set of mechanical drawings.

### 6.20 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).
- Other necessary details required for a complete set of plumbing drawings.

### 6.21 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.
- Other necessary details required for a complete set of electrical drawings.

### 6.22 Complete Landscape Drawings including but not limited to:

- Location of all trees, shrubs, berms, and sod/grass areas.
- Material schedules.
- Other necessary details required for a complete set of landscape drawings.

### 6.23 Complete Fire Protection Drawings (if applicable). Fire protection shop drawings shall be submitted to the authority prior to installation.

### 6.24 Green Development Plan outlining the integrated design approach used for this development.

### 6.25 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.

6.26 **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.

6.27 A current (≤ six months old) **ALTA/ACSM Land Title Survey**

6.28 A current (≤ twelve months old) **Phase I Environmental Assessment.** Please include all the assessment requirements under “New Construction” above, including applicable:
- All projects must comply with the IHDA Lead Based Paint Construction Guidelines. http://www.ihda.org/developer/architectureConstructionServices.htm

6.29 **Mold considerations:**
- Fact Sheets from Illinois Department of Public Health: http://www.idph.state.il.us/envhealth/factsheets/mold.htm http://www.idph.state.il.us/envhealth/factsheets/moisture.htm
- EPA Mold Site: http://www.epa.gov/mold/

7) **Design and Planning**

The following standards are being provided as an aid 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 any rehabilitation or adaptive reuse shall comply with the standards for new materials. If unsure as to which standards shall apply, consult with IHDA Architectural Services staff.

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, as long lasting and durable materials that will minimize unnecessary maintenance and replacement are preferred.

7.01 **Required Project Amenities:**
- Secured building features, such as security staff, cameras, alarm systems, secure common hallways and entrances, etc. appropriate for the population served and the location of the Project.
- The capability for each unit to access high-speed internet either through wireless service to all residents or hard-wire connection, such as coaxial or Cat-5 cable.
- Window treatments for each unit, such as mini blinds or curtains.
- On-site laundry facilities that will include, at a minimum, one of the following: a.) one washer for every four units with one dryer for every two washers, or b.) washers and dryers installed and maintained in every unit. The provision of washer/dryer hook-ups will not fulfill the requirement for on-site laundry. (See section 15.02 of this standard.)

**If the Project has three-bedroom units:**
- The units must contain one full bathroom and a three-quarters bathroom consisting of a toilet, sink and shower.

**If the Project has four or more bedroom units:**
- The units must contain at least two full bathrooms.
Recreation space:
- Elderly Projects, Supportive Housing Projects and SLF Projects, must include a furnished multipurpose or activity room appropriately sized for the development.
- All non-elderly Projects must include a fully equipped playground or tot lot appropriately sized for the Project.

8) Accessibility Standards

**Accessibility Codes and Acts**: One or more of the following accessibility Codes and Acts shall be applicable to any development funded by IHDA. 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. The design architect shall complete and forward the applicable UFAS or IAC checklist for the entire project prior to the G704 Architects Substantial Completion.

8.01 Fair Housing Act:
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.
http://www.hud.gov/offices/fheo/disabilities/fhefhag.cfm

8.02 Illinois Accessibility Code:
Housing units that are owned or 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.
http://www.illinoisattorneygeneral.gov/rights/environmental_barriers.html

8.03 Section 504 of the 1973 Rehabilitation Act:
Projects that receive federal financial assistance must comply with Section 504 of the 1973 Rehabilitation Act and 1984 Uniform Federal Accessibility Standards (UFAS):
www.access-board.gov/ufas/ufas.pdf
http://www.hud.gov/offices/fheo/library/UFASAccessibilityChecklistforPHAs-5-7-08.pdf

8.04 The Americans with Disabilities Act:
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).

8.05 Local Building Codes:
Projects must comply with the adopted local building code.

Technical Requirements:

8.06 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.

8.07 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.

8.08 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 at least one unit (whichever is greater) must be suitable for occupancy by people with hearing or visual impairments. The number of hearing and visual impaired units shall not be included in the required unit count for accessible units. 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.

8.09 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 CFR § 8.23, Alterations of existing housing facilities.

8.10 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.


8.12 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.

9) Visitability

Visitability 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 feasible. Visitability 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.

Design Considerations

9.01 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%.

9.02 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.

9.03 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.

9.04 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 Uniform Federal Accessibility Code or Sections 603-610 and 1002.11 of ICC/ANSI A117.1, latest edition.

10) Site Standards

10.01 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.

10.02 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.

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

10.04 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.

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

10.06 Projects shall not be located in proximity to environmental hazards.

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

Parking Areas and Sidewalks:

10.08 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 as set forth in the HUD Minimum Property Standards. A link can be found at:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/hudclips/handbooks/hsgh/4910.1

10.09 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.

10.10 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.

10.11 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.

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

10.11.2 In multi-family developments, when covered parking is provided a minimum of two percent (2%) of the covered parking spaces shall be accessible. If garages are provided, the minimum dimensions shall be per applicable code and door shall be 9’ wide. Cover parking shall be defined as either an indoor parking garage or an outside parking lot carport.

10.11.3 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.

10.12 In single family developments with single car garages, the minimum garage dimension will be 11’
Concrete curbs at all access drives and parking lots must be provided.

Access for fire-fighting equipment must be provided in accordance with the requirements of the local authorities.

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.

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.

11) Building Standards

Foundations:

11.01 The owner/developer must submit a soils report including a boring log. In projects composed of one building exceeding 2000 SF, there shall be a minimum of three borings within the building footprint and 2 borings along sidewalks and roadways. In projects with multiple buildings exceeding 2000 SF, there shall be a minimum of nine borings within the building footprints and evenly distributed throughout the project or as otherwise directed by the structural engineer. In addition, on previously developed lots at a minimum one boring is required within the footprint of each former structure. 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’ below the natural grade or hardpan.

11.02 Wall and column support footings shall be constructed of cast-in-place concrete. 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.

11.03 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.

11.04 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 fluctuation.

Exterior Walls:

11.05 Exterior wall facings shall 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, cementitious siding, treated engineered wood siding, insulated precast concrete decorative panels, wood siding or approved equal.

11.06 Exterior Finish and Insulation System (EIFS) is permitted in limited areas as an exterior facing with the approval of the Authority.

11.07 Special attention shall 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.

Stairs:

11.08 Open risers are not permitted.

11.09 Outdoor stairs and their approaches shall be designed so that water will not accumulate on walking surfaces.
11.10 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 Section 504 of ANSI A117.1-2003. If the alternative way is a ramp, the stairs must comply with Section 405 of ANSI A117.1-2003. When an accessible route consists of both a ramp and stairs, it is recommended 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.

11.11 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.

12) Dwelling Unit Standards

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

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

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 one occupant) / 400 square feet of floor area (for two occupants) 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 Healthcare and Family Services, 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.

12.02 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.

12.03 The minimum ceiling height in all habitable rooms shall be 7-feet 6-inches. Soffits may be dropped to 7'-0" A.F.F. if soffit area does not exceed 20% of room area.

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

12.05 Prefabricated shower and/or bathtubs units shall be specified and provided with factory installed integral reinforcing, cast into the grab bar compliant locations of the unit walls.

Exception: The installation of grab bars shall be required in dwelling unit bathrooms to be occupied by elderly, severely disabled people, and units required to be fully accessible.
13) 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 2012 edition of the applicable International Building Code, as well as: all cutting, notching, and boring in wood and steel framing.

Heating, ventilating, and air-conditioning systems:

13.01 All units shall be heated and air-conditioned. Heating, ventilating, and air-conditioning systems shall be designed and installed according to the requirements of the local building code. If no building code is adopted within the jurisdiction the International Mechanical Code, 2012 edition shall apply. They shall also comply with the efficient utilization of energy in accordance with the 2012 edition of the International Energy Conservation Code. Lastly, the United States Department of Energy ResCheck or ComCheck compliance verification and code requirements must be submitted to the Authority for review.

13.02 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 2012 edition of the International Fuel Gas Code or the local building code whichever is most stringent.

Plumbing

13.03 The Illinois State Plumbing Code, the local plumbing code, and these standards 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.

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

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

13.06 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.

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

13.08 Water distribution piping from the water meter throughout the building shall be “Type K” or ductile iron for below ground piping, and “Type L” copper or PEX for above ground and/or other IHDA approved material. Polybutylene and “Type M” copper water distribution pipe shall not be permitted.

13.09 Dielectric isolation shall be provided between ferrous and non-ferrous metals. Provide dielectric unions at points of connection of copper piping to ferrous piping and equipment or fittings.

Electrical

13.10 The National Electrical Code, the local electrical code, and these standards 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 shall prevail.

13.11 The electric service to each dwelling unit shall be metered separately in all new construction projects. One central meter shall only be permitted with a letter of approval from the electric utility company.

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

13.13 Copper wiring is required in all branch circuits and within all units. Aluminum and aluminum clad copper wiring is ONLY allowed in feeders 60 amps or larger terminating in disconnects and electrical panels with lugs that are rated and suitable for aluminum wiring. The line from the transformer to the meter is regulated by the National Electrical Code and/or the local utility company whichever is most stringent.
13.14 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.

13.15 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 the Carbon Monoxide Alarm Detector Act (Public Act 094-0741).

14) Energy Efficiency and Green Criteria

The energy efficiency and green criteria below apply to all Authority finance projects.


This section outlines some of the energy code compliance requirements based upon the prescriptive option of the Illinois 2012 IECC for single family and low rise residential buildings, 3 stories or less.

The full code, information on the performance option and the provisions for buildings 4 stories and over can be found at: www.ildceo.net/energycode or www.iccsafe.org.

A quick reference guide for the 2012 IECC can be found at: www.reca-codes.com

<table>
<thead>
<tr>
<th>Climate Zone</th>
<th>Windows</th>
<th>Insulation</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U-Factor</td>
<td>U-Factor</td>
<td>NR</td>
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<tr>
<td>Zone 5</td>
<td>0.32</td>
<td>0.55</td>
<td>0.40/0.55</td>
</tr>
</tbody>
</table>

NR indicates No Requirements

a. Air Sealing - Blower Door Test (IECC Section R402.4)

The building is required to be properly sealed, tested and verified as having an air leakage rate no higher than 5 ACH.

b. Duct Leakage Test (IECC Section R403.2)

Ducts must be tested and verified to have a total leakage of no more than 4cfm/100 sf. ft. Exception: Where air handler and all ducts are inside the conditioned space no duct leakage test is required.

c. Documentation

1. Maintenance instructions shall be furnished for equipment and systems that require preventative maintenance. R303.3

2. A permanent certificate listing all energy efficiency material and equipment values shall be posted on or in the electrical panel. A complete list of required values can be found in Section R401.3 of the EICC.

3. Blower door test results.

4. Duct leakage test results were applicable.
14.02 Additional Mandatory Design Requirements above the 2012 Illinois Energy Conservation Code

All projects seeking funding from the Authority must comply with the following criteria from the Enterprise Green Communities Criteria 2011 below. If projects are seeking 3rd party certification from Enterprise Green Communities, U.S. Green Building Councils LEED certification or ICC 700 – 2008 National Green Building Emerald Level certification, the specific 3rd party certification requirements will supersede the mandatory requirement outlined below.

Additional information regarding the mandatory sections outlined below can be found at:

http://www.greencommunitiesonline.org/tools/criteria/index.asp

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Mandatory Section</th>
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<tbody>
<tr>
<td>Section 3: Site Improvements</td>
<td>Only if providing landscaping.</td>
</tr>
<tr>
<td>3.4 Landscaping:</td>
<td>Provide a tree or plant list certified by the architect or landscape architect</td>
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<td></td>
<td>that the selection of new trees and plants are at least 50 percent native</td>
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<td>species, 100 percent appropriate to the site’s soils and microclimate and do not</td>
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<td>include invasive species. The minimum cost for the landscaping shall be 2% of</td>
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<td>the hard construction cost of the project. (Landscaping hard cost include:</td>
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<td>vegetation, hardscape, fencing, irrigation, lighting and furnishings.)</td>
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<td>Exception: IHDA approval will be required for the amount of landscaping provided</td>
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<td>for projects where the open land for landscaping is limited.</td>
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<tr>
<td>Section 4: Water Conserving Fixtures</td>
<td>4.1 (New Construction Only): Indicate on the drawings that water-conserving</td>
</tr>
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<td>fixtures with the following minimum specifications will be used: toilets-1.28</td>
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<tr>
<td></td>
<td>GPF, urinals – 0.5 GPF, showerheads - 2.0 GPM, kitchen faucets - 2.0 GPM,</td>
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<tr>
<td></td>
<td>bathroom faucets – 1.5 GPM</td>
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<td></td>
<td>(Rehab Only): Install water-conserving fixtures with the following minimum</td>
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<td></td>
<td>specifications wherever and whenever they are replaced: toilets-1.28 GPF,</td>
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<td></td>
<td>urinals – 0.5 GPF, showerheads - 2.0 GPM, kitchen faucets - 2.0 GPM, bathroom</td>
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<tr>
<td></td>
<td>faucets – 1.5 GPM</td>
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<tr>
<td>Section 5: Energy Efficiency</td>
<td>5.1a: (New Construction) Provide evidence that the project meets Energy Star</td>
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<tr>
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<td>standards for single family and low rise residential.</td>
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<td>Provide prescriptive or performance evidence that the project meets the above</td>
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<td></td>
<td>standards.</td>
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<td>The use of REScheck or COMcheck is recommended to verify compliance. It can be</td>
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<td></td>
<td>energycodes.gov/rescheck or <a href="http://www.energycodes.gov/comcheck">http://www.energycodes.gov/comcheck</a>.</td>
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<td>5.1b: (New Construction) Residential structures with central mechanical systems</td>
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<td>and structures over four stories must the Energy Star Multifamily High-Rise</td>
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<td>program (MFHR) guidelines. Project participating in the MFHR program are</td>
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<td>designed to exceed ASHRAE 90.1-2007 by 15 percent.</td>
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<tr>
<td></td>
<td>energycodes.gov/rescheck or <a href="http://www.energycodes.gov/comcheck">http://www.energycodes.gov/comcheck</a>.</td>
</tr>
<tr>
<td></td>
<td>5.4 Energy Star Appliances: Install Energy Star clothes washers, dishwashers and</td>
</tr>
<tr>
<td></td>
<td>refrigerators.</td>
</tr>
<tr>
<td>5.5a Interior Lighting - Interior Units:</td>
<td>Follow the guidance appropriate for the</td>
</tr>
</tbody>
</table>
project type: install the ENERGY STAR Advanced Lighting Package (ALP); OR follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR–qualified or have ENERGY STAR–qualified lamps installed; OR if replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.

5.5b Interior Lighting – Common Areas and Emergency Lighting: Follow the guidance appropriate for the project type: use ENERGY STAR–labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; OR if replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.

5.5c Exterior Lighting: Follow the guidance appropriate for the project type: install ENERGY STAR–qualified fixtures or LEDs with a minimum efficacy of 45 lumens / watt; OR follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR–qualified or have ENERGY STAR–qualified lamps installed; OR if replacing, install ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens / watt.

Section 8: Operation and Maintenance

Section 8.1 Building Maintenance Manual: Provide a manual that includes the following: a routine maintenance plan, operations and guidance for all appliances, HVAC operation, water-system turnoffs, lighting equipment, paving materials, landscaping, green cleaning products and schedule, pest control, and other systems that are part of each occupancy unit; and an occupancy turnover plan.

14.03 New technologies: Projects incorporating new technologies (items such as: alternative building systems, new design components and/or materials, etc.) for the purposes of decreasing operating costs will need to be justified through the use of a cost benefit analysis. Applicable new technologies shall include any proposed efficiencies in excess of those indicated in the 2012 International Energy Conservation Code/ASHRE Standard 90.1-2010, the IHDA Green Criteria or beyond those typically employed in similar housing. New technologies shall have a payback period within 18 years. Simple payback analysis shall at a minimum be utilized, or: the initial cost of the technology (or differential cost over its equivalent) divided by the annual energy savings due to the new technology. The payback period shall be calculated using the current IHDA underwriting forecasting assumptions and shall incorporate maintenance costs, adjustments for any needed life cycle repairs and/or reserves. In any event the technology employed needs to be proven and not experimental.

15) Community Facilities

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

15.01 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 8.00 “Accessibility Standards” of this Guideline.

15.02 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:
   a. Provide one automatic clothes washer for every four apartments.
   b. Provide one clothes dryer for every two washers.
   c. Five percent (5%) of the total automatic washing machines and clothes dryers in laundry rooms shall be front loading.
When common-use laundry facilities are not provided on-site, automatic washers and clothes dryers must be provided within all the dwelling units by the owner/developer.

15.03 When common-use laundry facilities are provided on-site to satisfy the requirements of section 15.02 above, washer and dryer hook-ups may be provided within individual dwelling units without the need to supply the automatic washer and clothes dryer.

15.04 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:

<table>
<thead>
<tr>
<th>Dwelling Type</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency/ Single Room Occupancy SRO</td>
<td>32 cubic feet</td>
</tr>
<tr>
<td>1-bedroom unit</td>
<td>72 cubic feet</td>
</tr>
<tr>
<td>2-bedroom unit</td>
<td>128 cubic feet</td>
</tr>
<tr>
<td>3-bedroom unit</td>
<td>200 cubic feet</td>
</tr>
<tr>
<td>4-bedroom unit</td>
<td>288 cubic feet</td>
</tr>
</tbody>
</table>

15.05 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.

16) Management, Office and Maintenance Spaces

16.01 If the size of the project warrants a separate common space for the management staff and rental office, it shall 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.

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

16.03 Refuse collection and compactor rooms shall 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 shall directly link access from this area to the exterior pick-up point. Floor drains shall be provided at these locations.

16.04 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.

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

16.06 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 shall discuss the plans with Authority's staff at the earliest opportunity.

17) Recreational Facilities
Indoor recreational facilities, if provided, shall be located within the Project and shall comply with the following minimum size requirements:

<table>
<thead>
<tr>
<th>Dwelling Type</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-100 dwelling units</td>
<td>600 square feet</td>
</tr>
<tr>
<td>101-300 dwelling units</td>
<td>800 square feet</td>
</tr>
<tr>
<td>301-500 dwelling units</td>
<td>1200 square feet</td>
</tr>
</tbody>
</table>

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.

Play areas for younger children shall 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 shall be ADA approved.

18) Supportive 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.

Building Construction:

18.01 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 146.210 Structural Requirements, An SLF’s architectural plans shall conform to the current State building codes for the respective building type, local Fire and Life Safety Standards for health care occupancy or the 2000 National Fire Protection Association Life Safety Code (NFPA) 101, Chapter 32, Residential Board and Care Occupancies, National Fire Protection Association, 1 Batterymarch Park, Quincy MA 02269 (March 11, 2003, no later amendments or editions included) or local building codes if more stringent.

18.02 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.

19) Factory Built Homes

This section Factory Built Homes refers to both manufactured and modular 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 factory built housing. Factory built housing units for multi-family applications will only be allowed for up to one-story in height. Factory built housing units for single-family, detached units will be allowed for up to two-stories in height. The design, construction and installation of the Factory Built Homes must incorporate all applicable wind, live, dead, snow and seismic design loads including geotechnical characteristics based on the specific geographical site conditions. As applicable, factory built housing must comply with the requirements of Title
24. Part 3280 Manufactured Home Construction and Safety Standards, Housing and Urban Development, the Authority Standards including the following modifications. Factory built housing must also comply with the Illinois Department of Public Heath requirements including: Approved Manufacturers, Regulations for Factory Built Structures in Illinois, and Guidelines for Installing Manufactured Homes in Illinois. The last link, “Guidelines for Installing.” is only intended to be used for installations where the manufacturer’s installation instructions are not available.

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

19.02 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.

19.03 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.

19.04 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.

19.05 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.

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

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

19.08 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 standards.

19.09 Water distribution piping from the water meter throughout the building shall be “Type K” or ductile iron for below ground piping, and “Type L” copper or PEX for above ground and/or other IHDA approved material. Polybutylene and “Type M” copper water distribution pipe shall not be permitted.

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

19.10 Copper wiring is required in all branch circuits and within all units. Aluminum and aluminum clad copper wiring is ONLY allowed in feeders 60 amps or larger terminating in disconnects and electrical panels with lugs that are rated and suitable for aluminum wiring. The line from the transformer to the meter is regulated by the National Electrical Code and/or the local utility company whichever is most stringent.

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

20) Definitions

Unless otherwise expressly stated, the following terms shall, for the purposes of the Standards, 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 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 of the Illinois Accessibility Code), 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).

Applicability: The latest version of the Standards shall be used in conjunction with the design and construction of the project. The Owner and General Contractor shall incorporate these Standards into their contract and agree to abide by these Standards. If there is a conflict between these Standards and any provision in the contract these Standards shall prevail.

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 and applicable amendments, 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 2012 International Building Code package.

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/developer, 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, their 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 2012 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 replaced; 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 (5%) and a cross slope no greater than 1:50 (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.