

# CHAPTER 3

## JURISDICTIONAL REQUIREMENTS AND LIFE CYCLE ASSESSMENT

### SECTION 301 GENERAL

**301.1 Scope.** This chapter contains requirements that are specific to and selected by the jurisdiction and provisions for whole building life cycle assessment.

**301.1.1 Application.** The requirements contained in this code are applicable to buildings, or portions of buildings. As indicated in Section 101.3, these buildings shall meet either the requirements of ASHRAE 189.1 or the requirements contained in this code.

**301.2 Jurisdictional requirements.** This chapter requires that the jurisdiction indicate in Table 302.1 whether specific provisions are mandatory for all buildings regulated by this code and, where applicable, the level of compliance required. All other provisions of this code shall be mandatory as applicable.

### SECTION 302 JURISDICTIONAL REQUIREMENTS

**302.1 Requirements determined by the jurisdiction.** The jurisdiction shall indicate the following information in Table 302.1 for inclusion in its code adopting ordinance:

1. The jurisdiction shall indicate whether requirements for residential buildings, as indicated in Exception 1 to Section 101.3, are applicable by selecting “Yes” or “No” in Table 302.1. Where “Yes” is selected, the provisions of ICC 700 shall apply and the remainder of this code shall not apply.
2. Where the jurisdiction requires enhanced energy performance for buildings designed on a performance basis, the jurisdiction shall indicate a zEPI of 46 or less in Table 302.1 for each occupancy required to have enhanced energy performance.
2. Where “Yes” or “No” boxes are provided, the jurisdiction shall check the box to indicate “Yes” where that section is to be enforced as a mandatory requirement in the jurisdiction, or “No” where that section is not to be enforced as a mandatory requirement in the jurisdiction.

**302.1.1 zEPI of 46 or less.** Where a zEPI of 46 or less is indicated by the jurisdiction in Table 302.1, buildings shall comply on a performance-basis in accordance with Section 601.3.1.

**Exception:** Buildings less than 25,000 square feet (2323 m<sup>2</sup>) in *total building floor area* pursuing compliance on a prescriptive basis shall be deemed to have a zEPI of 51 and shall not be required to comply with the

zEPI of Jurisdictional Choice indicated by the jurisdiction in Table 302.1.

### SECTION 303 WHOLE BUILDING LIFE CYCLE ASSESSMENT

**303.1 Whole building life cycle assessment.** Where a whole building life cycle assessment is performed in accordance with Section 303.1, compliance with Section 505 shall not be required. The requirements for the execution of a whole building life cycle assessment shall be performed in accordance with the following:

1. The assessment shall demonstrate that the building project achieves not less than a 20-percent improvement in environmental performance for global warming potential and at least two of the following impact measures, as compared to a reference design of similar usable floor area, function and configuration that meets the minimum energy requirements of this code and the structural requirements of the *International Building Code*. For relocatable buildings, the reference design shall be comprised of the number of reference buildings equal to the estimated number of uses of the relocatable building.
  - 1.1. Primary energy use.
  - 1.2. Acidification potential.
  - 1.3. Eutrophication potential.
  - 1.4. Ozone depletion potential.
  - 1.5. Smog potential.
2. The reference and project buildings shall utilize the same life cycle assessment tool.
3. The life cycle assessment tool shall be *approved* by the *code official*.
4. Building operational energy shall be included. For relocatable buildings, an average building operational energy shall be estimated to reflect potential changes in location, siting, and configuration by adding or subtracting modules, or function.
5. Building process loads shall be permitted to be included.
6. Maintenance and replacement schedules and actions for components shall be included in the assessment. For relocatable buildings, average transportation energy, material and waste generation associated with reuse of relocatable buildings shall be included in the assessment.
7. The full life cycle, from resource extraction to demolition and disposal, including but not limited to, onsite

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construction, maintenance and replacement, relocation and reconfiguration, and material and product embodied acquisition, process and transportation energy, shall be assessed.

**Exception:** Electrical and mechanical equipment and controls, plumbing products, fire detection and alarm systems, elevators and conveying systems shall not be included in the assessment.

8. The complete building envelope, structural elements, inclusive of footings and foundations, and interior walls, floors and ceilings, including interior and exterior finishes, shall be assessed to the extent that data are available for the materials being analyzed in the selected life cycle assessment tool.
9. The life cycle assessment shall conform to the requirements of ISO 14044.

**TABLE 302.1  
REQUIREMENTS DETERMINED BY THE JURISDICTION**

Section	Section Title or Description and Directives	Jurisdictional Requirements	
<b>CHAPTER 1. SCOPE</b>			
101.3 Exception 1.1	Detached one- and two-family dwellings and multiple single-family dwellings (town-houses) not more than three stories in height above grade plane with a separate means of egress, their accessory structures, and the site or lot upon which these buildings are located, shall comply with ICC 700.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
101.3 Exception 1.2	Group R-3 residential buildings, their accessory structures, and the site or lot upon which these buildings are located, shall comply with ICC 700.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
101.3 Exception 1.3	Group R-2 and R-4 residential buildings four stories or less in height above grade plane, their accessory structures, and the site or lot upon which these buildings are located, shall comply with ICC 700.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>CHAPTER 4. SITE DEVELOPMENT AND LAND USE</b>			
402.2.1	Flood hazard area preservation, general	<input type="checkbox"/> Yes	<input type="checkbox"/> No
402.2.2	Flood hazard area preservation, specific	<input type="checkbox"/> Yes	<input type="checkbox"/> No
402.3	Surface water protection	<input type="checkbox"/> Yes	<input type="checkbox"/> No
402.5	Conservation area	<input type="checkbox"/> Yes	<input type="checkbox"/> No
402.7	Agricultural land	<input type="checkbox"/> Yes	<input type="checkbox"/> No
402.8	Greenfield sites	<input type="checkbox"/> Yes	<input type="checkbox"/> No
407.4.1	High-occupancy vehicle parking	<input type="checkbox"/> Yes	<input type="checkbox"/> No
407.4.2	Low-emission, hybrid and electric vehicle parking	<input type="checkbox"/> Yes	<input type="checkbox"/> No
409.1	Light pollution control	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>CHAPTER 5. MATERIAL RESOURCE CONSERVATION AND EFFICIENCY</b>			
503.1	Minimum percentage of waste material diverted from landfills	<input type="checkbox"/> 50% <input type="checkbox"/> 65% <input type="checkbox"/> 75%	
<b>CHAPTER 6. ENERGY CONSERVATION, EFFICIENCY AND CO<sub>2</sub>e EMISSION REDUCTION</b>			
302.1, 302.1.1, 602.1	zEPI of Jurisdictional Choice – The jurisdiction shall indicate a zEPI of 46 or less in each occupancy for which it intends to require enhanced energy performance.	Occupancy: _____ zEPI: _____	
604.1	Automated demand response infrastructure	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>CHAPTER 7. WATER RESOURCE CONSERVATION, QUALITY AND EFFICIENCY</b>			
702.7	Municipal reclaimed water	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>CHAPTER 8. INDOOR ENVIRONMENTAL QUALITY AND COMFORT</b>			
804.2	Post-Construction Pre-Occupancy Baseline IAQ Testing	<input type="checkbox"/> Yes	<input type="checkbox"/> No
807.1	Sound transmission and sound levels	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>CHAPTER 10. EXISTING BUILDINGS</b>			
1007.2	Evaluation of existing buildings	<input type="checkbox"/> Yes	<input type="checkbox"/> No
1007.3	Post Certificate of Occupancy zEPI, energy demand, and CO <sub>2</sub> e emissions reporting	<input type="checkbox"/> Yes	<input type="checkbox"/> No

## CHAPTER 4

# SITE DEVELOPMENT AND LAND USE

### SECTION 401 GENERAL

**401.1 Scope and intent.** This chapter provides requirements for the development and maintenance of building and building sites to minimize negative environmental impacts and to protect, restore and enhance the natural features and environmental quality of the site.

**401.2 Predesign site inventory and assessment.** An inventory and assessment of the natural resources and baseline conditions of the building site shall be submitted with the construction documents.

The inventory and assessment shall:

1. Determine the location of any protection areas identified in Section 402.1 that are located on, or adjacent to, the building site;
2. Determine whether, and to the degree to which, the native soils and hydrological conditions of the building site have been disturbed and altered by previous use or development;
3. Identify *invasive plant species* on the site for removal; and
4. Identify native plant species on the site.

### SECTION 402 PRESERVATION OF NATURAL RESOURCES

**402.1 Protection by area.** Where *flood hazard areas*, surface water bodies or wetlands, conservation areas, parklands, agricultural lands or *greenfields* are located on, or adjacent to, a lot, the development of the lot as a building site shall comply with the provisions of Sections 402.2 through 402.8.

**402.2. Flood hazard areas.** For locations within *flood hazard areas*, unless compliance with Section 402.2.1 or Section 402.2.2 is required by Table 302.1, new buildings and structures and *substantial improvements* shall comply with Section 402.2.3.

**402.2.1 Flood hazard area preservation, general.** Where this section is indicated to be applicable in Table 302.1, new buildings and structures, site disturbance, and development of land shall be prohibited within *flood hazard areas*.

**402.2.2 Flood hazard area preservation, specific.** Where this section is indicated to be applicable in Table 302.1, new buildings and structures, site disturbance, and development of land shall be prohibited within the specific *flood hazard areas* established pursuant to local land use authority.

**402.2.3 Development in flood hazard areas.** New buildings, structures and *substantial improvements* constructed in *flood hazard areas* shall be in compliance with Section

1612 of the *International Building Code* provided the lowest floors are elevated or dry floodproofed to not less than 1 foot (25 mm) above the elevation required by Section 1612 of the *International Building Code*, or the elevation established by the jurisdiction, whichever is higher.

**402.3 Surface water protection.** Where this section is indicated to be applicable in Table 302.1, buildings and building site improvements shall not be located over, or located within a buffer as established by the jurisdiction, around or adjacent to oceans, lakes, rivers, streams and other bodies of water that support or could support fish, recreation or industrial use. The buffer shall be measured from the ordinary high-water mark of the body of water.

#### Exceptions:

1. Buildings and associated site improvements specifically related to the use of the water including, but not limited to, piers, docks, fish hatcheries, and habitat restoration facilities, shall be permitted where the impacts of the construction and location adjacent to or over the water on the habitat is mitigated.
2. Buildings and associated site improvements shall be permitted where a wetlands permit has been issued under a national wetlands permitting program or otherwise issued by the authority having jurisdiction.

**402.4 Wetland protection.** Buildings and building site improvements shall not be located within a wetland or within a buffer as established by the jurisdiction around a wetland.

**Exception:** Buildings and associated site improvements specifically related to the use of the wetland including, but not limited to, piers, docks, fish hatcheries, and habitat restoration facilities, shall be permitted where the impacts of the construction and location adjacent to or over the wetland on the habitat are mitigated.

**402.5 Conservation area.** Where this section is indicated to be applicable in Table 302.1, site disturbance or development of land in or within 50 feet (15 240 mm) of any designated conservation area shall not be permitted.

**Exception:** Buildings and associated site improvements located in or within 50 feet (15 240 mm) of a conservation area shall be permitted where the building and associated site improvements serve a purpose related to the conservation area as determined by the authority that designated the conservation area.

**402.6 Park land.** Site disturbance or development of land located within a public park shall not be permitted.

#### Exceptions:

1. Buildings and site improvements shall be permitted to be located within a park where the building and site improvements serve a park-related purpose.