

CHAPTER 23.60 LOCAL AMENDMENTS TO THE INTERNATIONAL ENERGY CONSERVATIVE CODE

23.60.100 Local Amendments to the International Energy Conservation Code.

The amendments to the International Energy Conservation Code (IECC) are listed hereafter by section. The edition adopted is as listed in AMC 9 23.05.010. The structure of amendments is as explained in AMC 23.05.015.

23.60.C102.2—23.60.C110 Delete sections.

Delete sections C102.2 through C110. Refer to the Anchorage Administrative Code.

23.60.C303.1.4 Insulation product rating.

Add the following exception:

Exception: A mean testing temperature of 40°F is acceptable for demonstrating compliance with this code.

23.60.C401.3 Thermal envelope certificate.

Add the following to the end of the section:

Approved parties include energy rater or builder.

23.60. Table C402.1.2 Opaque Building Thermal Envelope Assembly Maximum Requirements, U-factor Method.

Replace TABLE C402.1.2 with the following:

TABLE C402.1.2 OPAQUE THERMAL ENVELOPE ASSEMBLY REQUIREMENTS, U-FACTOR METHOD CLIMATE ZONE 7, All other and Group R		
Component	Approvable Maximum Factors	Enhanced Maximum Factors
Roofs		
Insulation entirely above roof deck	U-0.032	U-0.028
Metal buildings	U-0.035	U-0.029
Attic and other	U-0.021	U-0.017
Walls, above grade		
Mass ^c	U-0.071	N/A
Metal Building	U-0.052	U-0.044
Metal Framed	U-0.064	U-0.049
Wood framed and other ^c	U-0.064	U-0.051
Insulated Metal Panels	U-0.050	N/A
Walls, below grade		
Below-grade wall ^a	C-0.119	C-0.063
Floors		
Mass ^b	U-0.057	U-0.042
Joist/Framing	U-0.033	U-0.027
Slab-on-grade floors		
Unheated slabs	F-0.52	F-0.51

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Heated slabs ^a	F-0.62	F-0.602
Opaque doors		
Nonswinging door	U-0.31	N/A
Swinging door	U-0.37	N/A
Garage door with less than 14% glazing ^e	U-0.31	N/A

- Where heated slabs are below grade, below-grade walls shall comply with the U-factor requirements of above-grade mass walls.
- "Mass floors" shall be in accordance with Section C402.1.3.4.
- "Mass walls" shall be in accordance with Section C402.1.3.4.
- Swinging door U-factors shall be determined in accordance with NFRC-100.
- Garage doors having a single row of fenestration shall have an assembly U-factor less than or equal to 0.36, provided that the fenestration area is not less than 14 percent and not more than 25 percent of the total door area.

23.60.C402.1.2.1 Methods of determining U-, C-, and F-factors.

Replace reference to "Table C402.1.4" with "Table C402.1.2."

23.60. Table C402.1.3 Opaque Building Thermal Envelope Insulation Component Minimum Requirements, R-value Method.

Replace TABLE C402.1.3 with the following:

TABLE C402.1.3		
OPAQUE BUILDING THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS, R-VALUE METHOD^a		
CLIMATE ZONE 7, All other and Group R		
Component	R-Value (Minimum)	R-Value (Enhanced)
Roofs		
Insulation entirely above deck	30ci	35ci
Metal Buildings ^b	19+11LS	30+11LS
Attic and Other	49	60
Walls, above grade		
Masse	15.2ci	N/A
Metal Building	13+13ci	13+17ci
Metal Framed	13+7.5ci or 20+6.3ci	13+12.5ci or 20+11ci

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Wood framed and other	13+3.8ci or 20	13+7.5ci or 20+3.8ci
Insulated Metal Panels	20	N/A
Walls, below grade		
Below-grade walls _c	7.5ci	15ci
Floors		
Mass _d	14.6ci	20.9ci
Joist/Framing _g	30 (wood) 38 (steel)	38 (wood) 38+6ci (steel)
Slab-on-grade floors		
Unheated slabs	15, 24 inches	20, 24 inches
Heated slabs _f	15, 24 inches & 5 full slab	20, 48 inches & 5 full slab

ci = continuous insulation, LS = liner system

- Assembly descriptions can be found in ANSI/ASHRAE/IES 90.1 Appendix A.
- Where using R-value compliance method, a thermal spacer block shall be provided (minimum R-5), otherwise use the U-factor compliance method.
- Where heated slabs are below grade, below-grade walls shall comply with the R-value requirements for above-grade mass walls.
- "Mass floors" shall be in accordance with Section C402.1.3.4.
- "Mass walls" shall be in accordance with Section C402.1.3.4.
- The first value is for perimeter insulation and the second value is for full, under-slab insulation. Perimeter insulation and full-slab insulation components shall be installed in accordance with Section C402.2.4.
- For joist/ framing floor cavities 12 inches or less in depth, the entire cavity shall be filled with insulation.

23.60. Table C402.5 Building Thermal Envelope fenestration Maximum U-Factor and SHGC Requirements.

Replace TABLE C402.5 with the following:

TABLE C402.4			
BUILDING THERMAL ENVELOPE FENESTRATION			
MAXIMUM U-FACTOR AND SHGC REQUIREMENTS			
CLIMATE ZONE 7			
Item		Approvable Maximum	Enhanced Maximum
Vertical Fenestration			
Fixed fenestration - includes curtain wall, storefront, picture windows, and other fixed windows		U-0.34	U-0.28
Operable fenestration - includes operable fenestration products other than "entrance doors"		U-0.45	U-0.36

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Entrance doors	U-0.63	N/A
SHGC - $PF < 0.2$	0.36	0.4
SHGC - $0.2 \leq PF < 0.5$	0.43	0.48
SHGC - $PF \geq 0.5$	0.58	0.64
Skylights		
U-factor	U-0.5	U-0.44
SHGC	NR	N/A

23.60.C402.2.1 Roof-ceiling construction.

Add the following sentence:

When eave vents are installed, baffling of the vent openings shall be provided to deflect the incoming air above the surface of the insulation.

23.60.C403.4.1.5 Heated or cooled vestibules.

Amend section C403.4.1.4 to read as follows:

Vestibule heating systems shall be controlled by a thermostat located in the vestibule.

23.60.C403.4.2.3 Optimum start and stop.

Add to the end of the exception after "sleeping units" the following:

"...or where systems are not controlled by Direct Digital Control..."

23.60.C403.4.4 Part load controls.

Amend section C403.4.4 by deleting "and cooling demand" from Item No. 1, and add exception item 5 to read as follows:

5. Hydronic heating systems serving domestic hot water generation equipment or other equipment that requires a consistent supply temperature or flow may override temperature setback and/or flow controls in this section.

23.60.C403.7.4.2 Spaces other than nontransient dwelling units (Energy recovery systems).

Amend the exception by revising condition Number 8 to read as follows:

8. For each system where the largest source of air exiting the building at a single location at the building exterior is less than 75 percent of the design outdoor airflow rate.

23.60.C403.7.7 Shutoff dampers.

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Add additional exception to end of section as follows:

Exception: Dampers, nonmotorized or motorized, shall not be required for exhaust systems where grease, lint, and similar particulates may accumulate on the damper and create a fire hazard.

23.60.C403.13.3 Piping insulation.

Add exception item 8 as follows:

8. Piping within baseboard radiation assemblies serving the zone requiring conditioning and piping that is intended to serve as a terminal heating device.

23.60.C404.5 Heated water supply piping.

Delete section C404.5.

23.60.C404.6.1 Circulation systems.

Add the following exception:

Exception: Circulation pumps may be controlled by time clock.

23.60.C405.1 General

Amend the second paragraph to read as follows:

Compliance with section C405 may be achieved by one of the following:

1. Compliance with the interior lighting power requirements specified in Section C405.3. Compliance with Section C405.2 and Sections 21 C405.4 through C405.16 is not required.
2. Compliance with lighting controls specified in Section C405.2 (as amended) and compliance with the interior lighting power requirements specified in Section C405.3 where the total connected interior lighting power is no greater than 125% of the interior lighting power allowance. Compliance with Sections C405.4 through C405.16 is not required.

23.60.C405.2.2.2 Light-reduction controls.

Amend section C405.2.2.2 by revising the exception as follows:

Exception: Light reduction controls are not required in:

- a) Daylight zones with daylight responsive controls complying with Section C405.2.3.
- b) Spaces that have only one luminaire with a rated power of less than 100 watts.
- c) Spaces that use less than 0.6 watts per square foot.
- d) Corridors, lobbies, restrooms and similar common spaces
- e) Equipment rooms, storerooms and similar normally unoccupied spaces.
- f) Areas where HID lighting is used as the primary light source.

23.60.C405.2.4 Daylight-responsive controls.

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Unless using daylight-responsive controls to comply with other provisions in this code, compliance with this section is optional.

23.60.C405.2.5 Specific application controls.

Compliance with this section is optional.

23.60.C405.2.7 Exterior lighting controls.

Revise the first sentence to read as follows:

Exterior lighting systems shall be provided with controls that comply with Section C405.2.7.1 or Section C405.2.7.4.

Delete the second sentence.

23.60.C405.2.9 Interior parking area lighting controls.

In the second sentence, change the word “shall” to “may.”

23.60.C405.2.10 Sleeping unit and dwelling unit lighting and switched receptacle controls.

Compliance with this section is optional.

23.60.C405.15 Renewable energy systems.

Delete section in its entirety.

23.60.C406 Additional Efficiency, Renewable and Load Management Requirements.

Delete section C406.

23.60.C408.2 Mechanical systems and service water-heating systems commissioning and completion requirements.

In exception item 2, remove the words “within dwelling units or sleeping units.”

In exception item 2.2, replace “in the dwelling” with “in a dwelling unit.”

23.60.C503.1 General (Alterations).

Rewrite the exception as follows:

Exception: The following alterations shall not be required to comply with the requirements for new construction provided that the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.
3. Construction where the existing roof, wall or floor cavity is not exposed.
4. Roof recover.

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5. Roof replacement where roof assembly insulation is integral to or located below the structural roof deck.
6. Roof replacement where roof assembly insulation is above the roof deck and the insulation cannot be increased without modifying the structure to support full snow load.
7. Air barriers shall not be required for roof recover and roof replacement where the alterations or renovations to the building do not include alterations, renovations or repairs to the remainder of the building thermal envelope.
8. Surface-applied window film installed on existing single-pane fenestration assemblies to reduce solar heat gain provided that the code does not require the glazing or fenestration assembly to be replaced.
9. An existing building undergoing alterations that complies with Section C407.

23.60.C503.3.6 Replacement or added roof-mounted mechanical equipment (Alterations).

Add an exception as follows:

Exception: Curb height does not need to be increased where utilizing the existing curb and a curb adaptor is not required.

23.60.C505 Change of use or occupancy.

Throughout this section, replace “results in the same or increased energy use intensity rank” with “results in increased energy use intensity rank.”

23.60.C505.2.1 Building thermal envelope (Change of use or occupancy).

Replace the exception with the following:

Exception: The new occupancy is exempt from Section C402.5.1 if there is not a net increase in fenestration area.

23.60.R101—23.60.R505 Residential Provisions.

Energy conservation provisions for residential buildings as defined in Chapter 2 of this code shall comply with IRC Chapter 11, as amended under Chapter 23.85.