08 MAINE OFFICE OF COMMUNITY AFFAIRS

003 BUILDING CODES AND STANDARDS

Chapter 7: MAINE UNIFORM BUILDING AND ENERGY CODE - ENERGY CODE (formerly 16-642 C.M.R. Ch. 6)

SUMMARY: This chapter establishes the Energy Conservation code component of the Maine Uniform Building and Energy Code ("MUBEC"). The provisions of this chapter are based on a nationally recognized model building code published by the International Code Council, Inc. and is made part of the MUBEC through incorporation by reference.

SECTION 1. PURPOSE AND SCOPE

All building construction within the State of Maine shall be governed by the MUBEC. The MUBEC is adopted by the Technical Building Codes and Standards Board pursuant to Title 10 M.R.S. §9722. The primary objective of the Board is to adopt, amend, and maintain the *Maine Uniform Building and Energy Code.*

This chapter sets forth the regulation of the design and construction of buildings for the effective use of energy and is applicable to both residential and commercial buildings.

~~EFFECTIVE DATE: The effective date of this Chapter is 90 days after approval by the Commissioner of the Department of Public Safety.~~

SECTION 1.A EFFECTIVE DATE

This routine technical rule chapter goes into effect ninety (90) days after the approved filing with the Maine Office of the Secretary of State.

SECTION 2. AUTHORITY

The authority for this Chapter is Title 10 M.R.S. §9722, which provides that the Maine Technical Building Codes and Standards Board shall promulgate rules which adopt, amend, and maintain the Maine Uniform Building and Energy Code.

SECTION 3. DEFINITIONS

1. **IECC**. "IECC" means the 2021 International Energy Conservation Code, published by the International Code Council, Inc.

2. **MUBEC**. "MUBEC" means the Maine Uniform Building and Energy Code adopted pursuant to Title 10 M.R.S. §9721, *et seq*.

~~3. **Technical Building Codes and Standards Board**. "Technical Building Codes and Standards Board" means the board established pursuant to Title 5 M.R.S. §12004-G, subsection 5-A and Title 10 M.R.S. §9722.~~

43. **MUBEC Stretch Code**. "MUBEC Stretch Code" means ~~A~~an alternative building energy code adopted and maintained by the board as an appendix to the MUBEC, that is more stringent from the perspective of energy efficiency, carbon reductions, and resilience than the currently adopted edition of the Energy Code. The provisions of the MUBEC Stretch Code are contained in Appendix NA of this rule.

4. **PHI**. "PHI" means PassivHaus Institute, a global certifying body.

5. **Phius**. "Phius" is a national certifying body.

6. **Technical Building Codes and Standards Board**. "Technical Building Codes and Standards Board" means the board established pursuant to Title 5 M.R.S. §12004-G, subsection 5-A and Title 10 M.R.S. §9722.

SECTION 4: INCORPORATION BY REFERENCE

1. The 2021 International Energy Conservation Code, published by the International Code Council, Inc., is hereby adopted and incorporated by reference.

2. Energy Standard for Buildings except Low-Rise Residential Buildings 90.1 edition issued for the year 2019 published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Standards (ASHRAE), without addenda.

~~2~~3. MUBEC Stretch Code. A municipality may, pursuant to Title 10 M.R.S §9722, elect to adopt the MUBEC Stretch Code. If a municipality adopts the MUBEC Stretch Code, the provisions of the Stretch Code are mandatory in that municipality. The provisions of the MUBEC Stretch Code are contained in Appendix NA of this rule.

SECTION 5. REVISIONS TO THE COMMERCIAL PROVISIONS OF THE 2021 IECC

The following additions, insertions, deletions, and other changes are hereby made to the 2021 International Energy Conservation Code, Commercial Provisions:

1. Section *C101.1*

Delete [NAME OF JURISDICTION]; *and*
Insert "State of Maine" in its place.

2. Section C102.1.1

Delete all language from section; *and*
Insert **"**Buildings certified in compliance with ~~PassiveHouse~~PHI or ~~PHIUS~~Phius programs ~~or~~and ~~buildings that~~ meet the requirements identified in Table C407.2 shall be considered in compliance with the Energy Code." in its place.

3. Section C102.1.1.1

Insert new section "**C102.1.1.1 Phius Path: CO Submittals**
Prior to the issuance of a **final certificate of occupancy**, the following must be provided to the building official:
Option A (pre-final certification documents):
a. Design Certification Letter from Phius.
b. An updated Phius Report with results from the approved Phius certification software which reflects **as-built conditions and test results** (blower door and ventilation results) demonstrating project compliance with Phius performance requirements.
c. A statement from the CPHC, CPHD (Certified Passive House Consultant or Designer) or Phius Verifier/ Rater that the envelope meets the Phius hygrothermal requirements found in Appendix B of the Phius 2021 Certification guidebook
d. A statement from the Phius Verifier that the project test results meet the model performance requirements, all the mandatory limits and any other mandatory requirements.
e. A copy of the Phius workbook listing all testing results and as-built conditions

OR Option B (final certification in hand):

- A Final Certification Letter, provided by Phius

4. Section C102.1.1.2

Insert new section **"C102.1.1.2 PHI Path: CO Submittals**
Prior to the issuance of a **final certificate of occupancy**, the following must be provided to the building official:

Option A (pre-final certification documents):

a. Design State Conditional Assurance Letter from a PHI-accredited Certifier.
b. An updated compliance report with results from the approved PHI certification software which reflects **as-built conditions and test results** (blower door and ventilation results) demonstrating compliance with PHI performance requirements;
c. A copy of both the air leakage test results and report on the commission settings and performance of the building's ventilation system;
d. A statement from the Certified Passive House Consultant or Certified Passive House Designer that the project test results meet the model performance requirements, all the mandatory limits and any other mandatory requirements.

OR Option B (final certification in hand):

- A Final Certification Letter from a PHI-accredited Certifier"

~~3~~5. Section C102.1.2

Insert a new section **"C102.1.2 Optional Appendices.**
Appendices CB and CC of the 2021 IECC are intended to provide flexibility to permit the use of more than one approach or technique to achieve compliance with the code."

~~4~~6. Section C102.1.2.1

Insert a new section **"C102.1.2.1 Appendix CB.** Where new construction satisfies the provisions of Appendix CB of the 2021 IECC and Section C401.2 it shall be considered in compliance with the Energy Code."

~~5~~7. Section C102.1.2.2

Insert a new section **"C102.1.2.2 Appendix CC.** Where new construction satisfies the provisions of Appendix CC of the 2021 IECC and the requirements identified in Table C407.2 it shall be considered in compliance with the Energy Code."

~~6~~8. Section C104

Delete Section *C*104 "Fees" in its entirety, without substitution. Fees are a local permitting issue.

~~7~~9. Section C110

Delete Section C110 "Board of Appeals" in its entirety, without substitution. Appeals are handled at a local level.

SECTION 6. REVISIONS TO THE RESIDENTIAL PROVISIONS OF THE 2021 IECC

The following additions, insertions, deletions, and other changes are hereby made to the 2021 International Energy Conservation Code, Residential Provisions:

1. *Section R101.1*

Delete *[NAME OF JURISDICTION]; and*
Insert *"State of Maine" in its place.*

2. Section R102.1.1

Delete from language "The code official or other authority having jurisdiction shall be permitted to deem a national, state or local energy-efficiency program to exceed the energy efficiency required by this code. Buildings approved in writing by such an energy-efficiency program shall be considered to be in compliance with this code"; and
Insert "Buildings certified in compliance with ~~PassiveHouse,~~PHI or Phius~~, or the US Department of Energy's Zero Energy Ready Home programs~~ shall be considered in compliance with the Energy Code" in its place.

3. Section 102.1.1.1

Insert new section **"R102.1.1.1 Phius Path: CO Submittals**
Prior to the issuance of a **final certificate of occupancy**, the following must be provided to the building official:
Option A (pre-final certification documents):
a. A Design Certification Letter from Phius
b. An updated Phius Report with results from approved Phius certification software reflecting **as-built conditions and test results** (blower door and ventilation results) demonstrating compliance with Phius performance requirements
c. A statement from the CPHC, CPHD (Certified Passive House Consultant or Designer), or Phius Verifier/ Rater that the project test results meet the model performance requirements, all mandatory limits, and any other mandatory requirements
d. A copy of the Phius Verifier/Rater's test results
e. A copy of the Phius workbook listing all testing results and as-built conditions

OR Option B (final certification in hand):
- A Final Certification Letter, provided by Phius"

4. Section R102.1.1.2

Insert new section "**R102.1.1.2 PHI Path: CO Submittals**
Prior to the issuance of a **final certificate of occupancy**, the following must be provided to the building official:
Option A (pre-final certification documents):
a. A Design State Conditional Assurance Letter from a PHI-accredited Certifier
b. An updated compliance report from approved PHI certification software reflecting **as-built conditions and test results** (blower door and ventilation results) demonstrating compliance with PHI performance requirements
c. A statement from the Certified Passive House Designer or PHI Verifier/ Rater that the project test results meet the model performance requirements, all mandatory limits, and any other mandatory requirements
d. A copy of the PHI Verifier/Rater's test results

OR Option B (final certification in hand):
- A Final Certification Letter from a PHI-accredited Certifier

~~3~~5. Section R102.1.2

Insert new section "**R102.1.2 Optional Appendices.**
Appendices RB, and RC of the 2021 IECC are intended to provide flexibility to permit the use of more than one approach or technique to achieve compliance with the code."

~~4~~6. Section R.102.1.2.1

Insert new section "**R102.1.2.1 Appendix RB.**
Where new construction satisfies the provisions of Appendix RB of the 2021 IECC and Section R401.2 it shall be considered in compliance with the Energy Code."

~~5~~7. Section R.102.1.2.2

Insert new section "**R102.1.2.2 Appendix RC.**
Where new construction satisfies the provisions of Appendix RC of the 2021 IECC and the requirements identified in Table R405.2 it shall be considered in compliance with the Energy Code."

~~6~~8. Section R104

Delete Section R104 "Fees" in its entirety, without substitution. Fees are a local permitting issue.

~~7~~9. Section R110

Delete Section R110 "Means of Appeals" in its entirety, without substitution. Appeals are handled at a local level.

~~8~~10. *Table R402.1.3*

Delete values from column "Wood Frame Wall R-Value" in "Climate Zone" row~~s~~ "6" ~~and "7 and 8"~~; and ***Insert*** "30 or 20 + 10ci[h] or 13 + 15ci[h] or 0 + 20ci[h]" in its place.

Delete values from column "Wood Frame Wall R-Value" in "Climate Zone" row "7 and 8"; and ***Insert*** "30 or 20 + 15ci or 13 + 15ci or 0 + 20ci" in its place.

As shown below:

CLIMATE ZONE	WOOD FRAME WALL *R*-VALUE[g]
6	30 or 20 +10ci[h] or 13 + 15ci[h] or 0 + 20ci[h]
7 and 8	30 or 20 +~~10~~15ci[h] or 13 + 15ci[h] or 0 + 20ci[h]

Informational Note: Remainder of table remains unchanged.

~~9~~11. Section R402.2.13

Insert a new section "**R402.2.13 Above grade walls.** Above grade walls shall comply with this section."

1~~0~~2. Section R402.2.13.1

Insert a new section "**R402.2.13.1 IRC Compliance.**
Insulation for above grade walls must also show compliance with IRC Section R702.7."

1~~1~~3. Section R402.2.13.2

Insert a new section "**R402.2.13.2 Exterior insulation.**
Where insulation for above grade walls uses less than R-10ci for exterior insulation, a dew point calculation showing that the temperature of the first condensing surface is greater than ~~41 degrees F~~40°F with an interior air temperature of 68°F ~~at 35% humidity~~ shall be completed by a registered design professional or approved agency and provided to the code official for review. The calculation shall be completed using an outside air temperature as the average of the three coldest months of the year for the nearest location to the dwelling unit. Outside air temperatures shall be obtained using ASHRAE

Fundamentals or NOAA National Centers for Environmental Information U.S. Climate Normals (1991-2020).

Exceptions:

1. Where the wall assembly uses cavity only insulation.
2. Where the wall assembly has a permeability of greater than 5 perms."
3. Where the ratio of air-impermeable exterior ci R-value to the total insulation R-value in the wall assembly is not less than 35% in Climate Zone 6 or 45% in Climate Zone 7.
4. Where the wall assembly incorporates a Class II variable permeance or responsive vapor retarder installed on the interior side of the assembly, having a vapor permeance of 1 perm or greater in accordance with ASTM E96, water method (Procedure B).
5. Where the wall assembly incorporates a Class III vapor retarder installed on the interior side of the assembly and meets 2021 IRC Table R702.7(3) requirements.

12~~4~~. Section R402.4.1.2

Delete (from the second sentence) "5.0"; *and*
Insert "3.0" in its place.

Delete (from the second sentence) "0.28"; *and*
Insert "0.20" in its place.

13~~5~~. Section R402.4.1.3

Delete Section R402.4.1.3 in its entirety.

14~~6~~. Section R402.4.7

Insert a new section **"R402.4.7 Bulkhead enclosures.**
Where a bulkhead enclosure is installed for basement access, a wall and vertical door must be installed at the base of the stairs or where the bulkhead enclosure meets the basement wall and must be air sealed in accordance with Table R402.4.1.1."

15~~7~~. Table R405.2

Insert new row in table (after *"*R402.2.10.1| Crawl space wall insulation installation") with the text "R402.2.13" in the first column and "-Above grade walls" in the second column.

As shown below:

Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.2.3	Eave baffle
R402.2.4.1	Access hatches and doors
R402.2.10.1	Crawl space wall insulation installation
R402.2.13	Above grade walls

Informational Note: Remainder of table remains unchanged.

APPENDIX NA. MUBEC STRETCH CODE

The 2021 Stretch Code is created to lower energy consumption in both commercial and residential projects compared to the 2021 IECC.

Commercial Projects: The Total Building UA for the project, calculated as outlined in C402.1.5, shall exceed the UA requirements by at least 15% over a code compliant project. *This means that the Envelope PASSES design by 15% better (or more) than code per the COMCheck compliance calculation*.

Buildings certified in compliance with PHI or Phius as referenced in Section C102.1.1 shall be considered in compliance with the MUBEC Stretch Code.

Residential Projects: The Total Building UA for the project, calculated as outlined in R402.1.5, shall exceed the UA requirements by at least 15% over a code compliant project. *This means that the Envelope PASSES design by 15% better (or more) than code per the RESCheck compliance calculation*. For residential projects that do not include fossil fuels for any use (heating, cooling, hot water, backup heat, cooking, etc.) the Total Building UA shall exceed the UA requirements by at least 10% over a code compliant project. This electrification incentive allows the use of fossil fuels for backup power generation.

Buildings certified in compliance with PHI or Phius as referenced in Section R102.1.1 shall be considered in compliance with the MUBEC Stretch Code.

STATUTORY AUTHORITY:
Title 10 M.R.S. §9722

EFFECTIVE DATE:
October 11, 2010 – filing 2010-471

AMENDED:
January 23, 2018 – filing 2018-011
May 10, 2021 – filing 2021-095 (EMERGENCY)
August 26, 2021 – filing 2021-169
March 4, 2025 – filing 2025-047

APAO ACCESSIBILITY CHECK: July 31, 2025 (Agency resolution of an accessibility issue resulting from the use of a table in the rule is needed)

TRANSFER OF AUTHORITY TO ADMINISTER AND ENFORCE RULE: The authority to administer and enforce this rule (formerly 16-642 C.M.R. Ch. 6) was transferred to the Maine Office of Community Affairs on September 24, 2025 pursuant to PL 2025, c. 388.