Title 09
MARYLAND DEPARTMENT OF LABOR
Subtitle 12 DIVISION OF LABOR AND INDUSTRY
Chapter 51 Maryland Building Performance Standards

Authority: Public Safety Article, §§12-503, 12-507(a)(2), 12-508(g), and 12-510(d), Annotated Code of Maryland

.01 Title.

This chapter shall be known and may be cited as the Maryland Building Performance Standards Regulations.

.02 Purpose and Scope.

The purpose of this chapter is to adopt the International Building Code (IBC), the International Residential Code (IRC), and the International Energy Conservation Code (IECC), as may be modified by the Department, as the Maryland Building Performance Standards, which will provide reasonable protection to the public against hazards to life, health, and property, and to establish the policies and procedures associated with the operation of a data base that contains the Standards, the local amendments, and other related information.

.03 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) Agricultural Building.

(a) "Agricultural building", for purposes of Regulation .06B of this chapter only, means a structure designed and constructed to house farm implements, hay, grain, poultry, livestock, or other horticultural products.

(b) "Agricultural building" does not include a place of human residence.

(2) Agritourism.

(a) "Agritourism" means tourism of agricultural farms and buildings by members of the general public for recreational, entertainment, or educational purposes for which tourists may or may not pay fees.

(b) Agritourism includes the following activities, when performed by a tourist:

(i) Viewing rural activities, farming, ranching, and wine making;

(ii) Viewing natural, historical, and cultural resources; and

(iii) Harvesting agricultural products.

(3) "Building" has the meaning and interpretation set forth in the International Building Code.

(4) "Codes Administration" means the Building Codes Administration, an administration within the Department.

(5) "County" means any of the 23 counties of the State and the Mayor and City Council of Baltimore.

(6) "Department" means the Maryland Department of Labor.

(7) "High performance home" has the meaning stated in Public Safety Article, §12-509(a), Annotated Code of Maryland.

(8) Hotel.

(a) "Hotel" means an establishment that offers sleeping accommodations for compensation.

(b) "Hotel" does not include a bed and breakfast establishment.

(9) "IBC" means the International Building Code, as incorporated by reference in this chapter.

(10) "ICC" means the organization known as the International Code Council.

(11) "Local amendment" means:

(a) An amendment to the Standards that has been adopted by a local jurisdiction in accordance with applicable local laws and regulations; and

(b) A copy of the amendment has been provided to the Department for inclusion in the data base within the following time period:

(i) At least 15 days before the effective date of the amendment, or

(ii) In the case of an emergency adoption of an amendment, within 5 days of the emergency amendment's adoption.

(12) "Local jurisdiction" means the county or municipality responsible for implementation and enforcement of the Maryland Building Performance Standards.

(13) “Master control device” means:

(a) A control that is activated when a person enters the room through the primary room–access method; or

(b) An occupancy sensor control that is activated by a person’s presence in the room.

(14) "MBPS" or "Standards" means the Maryland Building Performance Standards established by these regulations.

(15) "Municipality" means a municipal corporation subject to the provisions of Article XI-E of the State Constitution.

(16) "Person" means an individual, corporation, partnership, association, or any other legal entity authorized to do business in the State.

(17) "Structure" has the meaning and interpretation set forth in the IBC.

.04 Incorporation by Reference.

A. In this chapter, the following documents are incorporated by reference:

(1) 2021 International Building Code (International Code Council);

(2) 2021 International Residential Code for One- and Two-Family Dwellings (International Code Council); and

(3) 2021 International Energy Conservation Code (International Code Council).

B. Modifications to the International Building Code.

(1) Chapter 1. Add note to Chapter 1 of the IBC: Local jurisdictions are responsible for the implementation and enforcement of the Maryland Building Performance Standards. Refer to each local jurisdiction for local amendments to Chapter 1 of the IBC. Each local jurisdiction having authority shall establish, on or before the application date in Regulation .06 of this chapter, implementation and enforcement procedures that include:

(a) Review and acceptance of appropriate plans;

(b) Issuance of building permits;

(c) Inspection of the work authorized by the building permits; and

(d) Issuance of use and occupancy certificates.

(2) Chapter 1. Add to Exception in Section 101.2 Scope the following:

(a) Exception: 2. Existing buildings undergoing repair, alterations or additions, and change of occupancy shall comply with the Maryland Building Rehabilitation Code set forth in COMAR 09.12.58; and

(b) Exception: 3. Maintenance of residential structures and premises shall comply with the Minimum Livability Code COMAR 09.12.54.

(3) Chapter 1. Delete the Section 101.2.1 Appendices and replace with the following:

101.2.1 Appendices: The provisions in the Appendices C Group-U Agricultural Buildings, G Flood-Resistant Construction, and H Signs are adopted as part of the IBC.

(4) Chapter 9. Add note to Section 901.1 Scope Fire protection system requirements of Chapter 9 may be concurrently covered in the State Fire Prevention Code, Public Safety Article Title 6 and Title 9, Annotated Code of Maryland, and COMAR 29.06.01. The State Fire Prevention Code is enforced by the State Fire Marshal or authorized fire official.

(5) Chapter 10. Add note to Section 1001.1 General: Means of egress requirements of Chapter 10 may be concurrently covered in the State Fire Prevention Code, Public Safety Article, Title 6, Annotated Code of Maryland, and COMAR 29.06.01. The State Fire Prevention Code is enforced by the State Fire Marshal or authorized fire official.

(6) Chapter 11. Chapter 11 of the IBC related to accessibility requirements is hereby replaced with the Maryland Accessibility Code set forth in COMAR 09.12.53. A local jurisdiction may adopt and enforce the requirements of Chapter 11 of the IBC to the extent the requirements meet or exceed the requirements set forth in COMAR 09.12.53.

(7) Chapter 24. The requirements for safety glazing set forth in Public Safety Article, Title 12, Subtitle 4, Annotated Code of Maryland, are in addition to Chapter 24, Section 2406 of the IBC related to safety glazing. In the event of a conflict between Chapter 24 of the IBC and the Annotated Code of Maryland, the requirements of the Annotated Code of Maryland prevail.

(8) Chapter 27. ELECTRICAL. Add note to Section 2701.1 Scope: The subject matter of this chapter is not within the scope of the Maryland Building Performance Standards. For the applicable electrical requirements, refer to the local electrical code and the National Electrical Code as adopted and enforced by the State Fire Marshal, authorized fire officials, or building officials pursuant to the provisions of Public Safety Article, Title 12, Subtitle 6, Annotated Code of Maryland.

(9) Chapter 28. MECHANICAL SYSTEMS. Add note to Section 2801.1 Scope: The subject matter of this chapter is not within the scope of the Maryland Building Performance Standards. For the applicable requirements concerning the mechanical systems, refer to the local mechanical code and the mechanical code adopted pursuant to the provision of Business Regulation Article, §9A-205, Annotated Code of Maryland.

(10) Chapter 29. PLUMBING SYSTEMS. Add note to Section 2901.1 Scope: The subject matter of this chapter is not within the scope of the Maryland Building Performance Standards. For the applicable requirements concerning the plumbing systems, refer to the local plumbing code and the plumbing code adopted pursuant to the provisions of Business Occupations and Professions Article, Title 12, Annotated Code of Maryland.

(11) Chapter 30. The provisions of Chapter 30 of the IBC relate to elevators and conveying systems and are in addition to and not instead of the requirements set forth in Public Safety Article, Title 12, Subtitle 8, Annotated Code of Maryland. In the event of a conflict between the IBC and the Annotated Code of Maryland, the provisions of the Annotated Code of Maryland prevail.

(12) Any rehabilitation work undertaken in an existing building as defined in COMAR 9.12.58 shall comply with the requirements of Maryland Building Rehabilitation Code set forth in COMAR 09.12.58.

(13) Modify Section 308.5.1 Classification as Group E. At the end of Section 308.5.1, add "Exception: A childcare facility may be classified as I-4 when the facility is classified as a day care occupancy under the State Fire Prevention Code."

(14) Modify Section 406.2.7 Electric vehicle charging stations and systems. Delete "Accessibility to electric vehicle charging stations shall be provided in accordance with Section 1107."

(15) Modify Section 411.5 Puzzle room exiting. Delete item 3 and replace with "3. All exits and exit access doors from each puzzle room shall be open and readily available upon activation by the automatic fire alarm system, automatic sprinkler system, a manual control at a constantly attended location and shall have a readily accessible control located inside each puzzle room."

(16) Modify Section 510.2 Horizontal building separation allowance with the following:

(a) Delete condition 4; and

(b) Condition 7. Replace "grade plane" with "lowest level of fire department vehicle access".

(17) Modify Section 907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more with the following:

(a) Replace section title with "System initiation in Group A occupancies with an occupant load of 300 or more; and

(b) Replace "1,000" with "300".

(18) Modify Section 1004.8 Concentrated business use areas. Add "nail salons," after "call centers," and before "trading floors,".

C. Modifications to the International Residential Code for One- and Two-Family Dwellings:

(1) Chapter 1. Scope and Administration:

(a) Delete the Section 102.5 Appendices and replace with the following:

102.5 Appendices: The provisions in the Appendices AF Radon Control Methods and AQ Tiny Houses are adopted as part of the IRC;

(b) Add to Exception in Section 101.2 Scope the following:

(i) Exception: 2. Existing buildings undergoing repair, alterations or additions, and change of occupancy that comply complies with the Maryland Building Rehabilitation Code set forth in COMAR 09.12.58; and

(ii) Exception: 3. Maintenance of residential structures and premises shall comply with the Minimum Livability Code COMAR 09.12.54.

(2) ENERGY. Chapter 11. ENERGY EFFICIENCY.

(a) Modify Section N1101.13.15 Additional energy efficiency, add "4. For buildings complying with Section N1102.1.3.1, the structure shall also comply with the additional energy features in Section N1108.3."

(b) Modify Section N1102.1.1 Above code programs. Add to the end of Section N1102.1.1, "Compliance with the Silver Rating of the ICC/ASHRAE 700-2015 National Green Building Standard as codified in §12-509(a) of the Annotated Code of Maryland shall be considered to be in compliance with this code."

(c) Modify Section N1102.1.3:

(i) Add new "N1101.1.3.1 Maryland Alternative R-value. Assemblies with R-value of insulation materials equal to or greater than that specified in Table N1102.1.3.1 shall be an alternative to the U-factor in Table N1102.1 when combined with Section N1108.3. The provisions of Section N1108.2.1 shall be applied to the base model house to establish the reference base design establishing energy efficiency."; and

(ii) Add the following table:

Table N1102.1.3.1 (R402.1.3.1)

MD Alternative Insulation Minimum R-Values and Fenestration Requirements by Component[a]

Climate Zone	Fenestration U-Factor [b, i]	Skylight[b] U-Factor	Glazed Fenestration SHGC[b, e]	Ceiling R-Value	Wood Frame Wall R-Value[g]	Mass Wall R-Value[h]	Floor R-Value	Basement[c, g] Wall R-Value	Slab[d] R-Value & Depth	Crawl Space[c, g] Wall R-Value
4 except Marine	0.30	0.55	0.40	49	20 or 13+5[h]	8/13	19	10ci or 13	10ci, 4ft	10ci or 13
5	0.30[i]	0.55	0.40	49	20 or 13+5[h]	13/17	30	15ci or 19 or 13 + 5ci	10ci, 4ft	15ci or 19 Or 13 + 5ci

For SI: 1 foot = 304.8 mm.
ci = continuous insulation.

[a.] R-values are minimums. U-factors and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed R-value of the insulation shall be not less than the R-value specified in the table.

[b.] The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestrations. Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30.

[c.] "10ci or 13" means R-10 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "15ci or 19 or 13 & 5ci" means R-15 continuous insulation (ci) on the interior or exterior surface of the wall; or R-19 cavity insulation on the interior side of the wall; or R-13 cavity insulation on the interior of the wall in addition to R-5 continuous insulation on the interior or exterior surface of the wall.

[d.] R-5 insulation shall be provided under the full slab area of a heated slab in addition to the required slab edge insulation R-value for slabs. as indicated in the table. The slab-edge insulation for heated slabs shall not be required to extend below the slab.

[e.] There are no SHGC requirements in the Marine Zone.

[f.] Basement wall insulation is not required in Warm Humid locations as defined by Figure R301.1 and Table R301.1.

[g.] The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, "13 & 5" means R-13 cavity insulation plus R-5 continuous insulation.

[h.] Mass walls shall be in accordance with Section R402.2.5. The second R-value applies where more than half of the insulation is on the interior of the mass wall.

[i.] A maximum U-factor of 0.32 shall apply in Climate Zones 3 through 8 to vertical fenestration products installed in buildings located either:

[1.] Above 4,000 feet in elevation, or

[2.] In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the International Residential Code.

(d) Modify Section N1102.2.1 Ceilings with attic spaces with the following:

(i) Add “or Section N1102.1.3.1” after “N1102.1.3” and before “requires R-49 insulation”; and

(ii) Add “or Section N1102.1.3.1” after “N1102.1.3” and before “requires R-60 insulation”.

(e) Modify Section N1102.2.2 Ceilings without attics with the following:

(i) Add “or Section N1102.1.3.1” after “N1102.1.3” and before “requires insulation R-values greater than R-30”; and

(ii) Add “or N1102.1.3.1” after “N1102.1.3” and before “shall be limited to”.

(f) Modify Section N1108 Additional Efficiency Package Options:

(i) Add new Section “N1108.3 Maryland Alternative Additional Energy Efficiency Package Options. The provisions of this Section shall be applied as part of the prescriptive compliance path of Section N1102.1.3.1. Additional energy efficiencies from Table N1108.3 must be selected to meet or exceed a minimum percentage increase of 6% for climate Zone 4 and 6% for Climate Zone 5.”; and

(ii) Add the following table:

	Table N1108.3 (R408.3) Additional Energy Features[1]		
	Energy Feature	Percentage Increase for Climate Zone 4	Percentage Increase for Climate Zone 5
1	≥ 2.5% reduction in total UA[5]	1%	1%
2	≥ 5% reduction in total UA[5]	2%	3%
3	> 7.5% reduction in total UA[5]	2%	3%
4	0.22 U-factor windows[5]	3%	4%
5	High performance cooling system (Greater than or equal to 18 SEER and 14 EER air conditioner)[2]	3%	2%
6	High performance cooling system (Greater than or equal to 16 SEER and 12 EER air conditioner)[2]	3%	3%
7	High performance gas furnace (Greater than or equal to 96 AFUE natural gas furnace)[2]	5%	7%
8	High performance gas furnace (Greater than or equal to 92 AFUE natural gas furnace)[2]	4%	5%
9	High performance heat pump system (Greater than or equal to 10 HSPF/18 SEER air source heat pump.)[2]	6%	6%
10	High performance heat pump system (Greater than or equal to 9 HSPF/16 SEER air source heat pump.)[2]	5%	5%
11	Ground source heat pump (Greater than or equal to 3.5 COP ground source heat pump.)[2]	6%	8%
12	Fossil fuel service water heating system (Greater than or equal to 82 EF fossil fuel service water-heating system.)	3%	2%
13	High performance heat pump water heating system option (Greater than or equal to 2.9 UEF electric service water-heating system.)	8%	6%
14	High performance heat pump water heating system. (Greater than or equal to 3.2 UEF electric service water-heating system.)	8%	6%
15	Solar hot water heating system (Greater than or equal to 0.4 solar fraction solar water-heating system.)	6%	6%
16	More efficient HVAC distribution system. (100 percent of ductless thermal distribution system or hydronic thermal distribution system located completely inside the building thermal envelope.)	10%	12%
17	100% of ducts in conditioned space. (100 percent of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.)	12%	15%

	Table N1108.3 (R408.3) Additional Energy Features[1]		
	Energy Feature	Percentage Increase for Climate Zone 4	Percentage Increase for Climate Zone 5
18	Reduced total duct leakage. (When ducts are located outside conditioned space, the total leakage of the ducts, measured in accordance with R403.3.5, shall be in accordance with one of the following: a. Where air handler is installed at the time of testing, 2.0 cubic feet per minute per 100 square feet of conditioned floor area. b. Where air handler is not installed at the time of testing, 1.75 cubic feet per minute per 100 square feet of conditioned floor area.)	1%	1%
19	2 ACH50 air leakage rate with ERV or HRV installed. (Less than or equal to 2.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed.)[3]	10%	13%
20	2 ACH50 air leakage rate with balanced ventilation. (Less than or equal to 2.0 ACH50, with balanced ventilation as defined in Section 202 of the 2021 International Mechanical Code.)[4]	4%	5%
21	1.5 ACH50 air leakage rate with ERV or HRV installed. (Less than or equal to 1.5 ACH50, with either an ERV or HRV installed.)[4]	12%	15%
22	1 ACH50 air leakage rate with ERV or HRV installed. (Less than equal to 1.0 ACH50, with either an ERV or HRV installed.)4	14%	17%
23	Energy Efficient Appliances (Minimum 3 appliances not to exceed 1 form each type with follow efficiencies. Refrigerator - Energy Star Program Requirements, Product Specification for Consumer Refrigeration Products, Version 5.1 (08/05/2021), Dishwasher - Energy Star Program Requirements for Residential Dishwashers, Version 6.0 (01/29/2016), Clothes Dryer - Energy Star Program Requirements, Product Specification for Clothes Dryers, Version 1.1 (05/05/2017) and Clothes Washer - Energy Star Program Requirements, Product Specification for Clothes Washers, Version 8.1 (02/05/2018)	7%	5%
24	Renewable Energy Measure.[4]	11%	9%

[1.] Energy efficiency percentage increases as established by PNNL.

[2.] For multiple cooling systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the cooling design load. For multiple heating systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the heating design load. Increases to minimum efficiency requirements are limited to one selection.

[3.] Minimum HRV and ERV requirements, measured at the lowest tested net supply airflow, shall be greater than or equal to 75 percent Sensible Recovery Efficiency (SRE), less than or equal to 1.1 cubic feet per minute per watt (0.03 m3/min/watt) and shall not use recirculation as a defrost strategy. In addition, the ERV shall be greater than or equal to 50 percent Latent Recovery/ Moisture Transfer (LRMT).

[4.] Renewable energy resources shall be permanently installed that have the capacity to produce a minimum of 1.0 watt of on-site renewable energy per square foot of conditioned floor area. The installed capacity shall be in addition to any onsite renewable energy required by Section R404.4. To qualify for this option, one of the following forms of documentation shall be provided to the code official:

[a.] Substantiation that the RECs associated with the on-site renewable energy are owned by, or retired on behalf of, the homeowner.

[b.] A contract that conveys to the homeowner the RECs associated with the on-site renewable energy or conveys to the homeowner an equivalent quantity of RECs associated with other renewable energy.

[c.] Reduction in total UA from lines 1, 2 or 3 and higher performance windows from line 4 are limited to a single selection.

(3) MECHANICAL. Chapter 12. MECHANICAL ADMINISTRATION. Add note to Section M1201.1 Scope: The subject matter of chapters 12 through 24 is not within the scope of the Maryland Building Performance Standards. For the applicable requirements concerning the mechanical systems, refer to the local mechanical code and the mechanical code adopted pursuant to the provisions of Business Regulation Article, §9A-205, Annotated Code of Maryland.

(4) PLUMBING. Chapter 25. PLUMBING ADMINISTRATION. Add note to Section P2501.1 Scope: The subject matter of chapters 25 through 33 is not within the scope of the Maryland Building Performance Standards. For the applicable requirements concerning the plumbing systems, refer to the local plumbing code and the plumbing code adopted pursuant to the provisions of Business Occupations and Professions Article, Title 12, Annotated Code of Maryland.

(5) ELECTRICAL. Chapter 34. GENERAL REQUIREMENTS. Add note to Section E3401.1 Applicability: The subject matter of chapters 34 through 43 is not within the scope of the Maryland Building Performance Standards. For the applicable electrical requirements, refer to the local electrical code and the National Electrical Code as adopted and enforced by the State Fire Marshal, authorized fire officials, or building officials pursuant to the provisions of Public Safety Article, Title 12, Subtitle 6, Annotated Code of Maryland.

(6) Modify Section P2904.1 by deleting "A backflow preventer shall not be required to separate a sprinkler system from the water distribution system, provided that the sprinkler system complies with all of the following:

(a) The system complies with NFPA 13D or Section P2904;

(b) The piping material complies with Section P2906;

(c) The system does not contain antifreeze; and

(d) The system does not have a fire department connection."

D. Modifications to the International Energy Conservation Code.

(1) Add a note to Section C101, Scope and General Requirements: Additional requirements concerning energy conservation for buildings and structures may be required by the Energy Conservation Building Standards, Public Utilities Article, §§7-401—7-408, Annotated Code of Maryland, as amended.

(2) Add a note to Section C405.2.5 Specific Application Controls: For the new construction of hotels:

(a) Each hotel guest room shall be equipped with a master control device that automatically turns off the power to all of the lighting fixtures in the guest room no more than 30 minutes after the room has been vacated; and

(b) A master control device may also control the heating, ventilation, or air conditioning default settings in hotel guest rooms 30 minutes after a room has been vacated by:

(i) Increasing the set temperature by at least 3 degrees Fahrenheit when in the air conditioning mode; or

(ii) Decreasing the set temperature by at least 3 degrees Fahrenheit when in the heating mode.

(3) Modify Section R102.1.1 Above code programs. Add to the end of Section R102.1.1, "Compliance with the Silver Rating of the ICC/ASHRAE 700-2015 National Green Building Standard as codified in §12-509(a) of the Annotated Code of Maryland shall be considered to be in compliance with this code."

(4) Modify Section R401.2.5 Additional energy efficiency add "4. For buildings complying with Section R402.1.3.1, the structure shall also comply with the additional energy features in Section R408.3."

(5) Modify Section R402.1.3 R-Value Alternative with the following:

(a) Add new "R402.1.3.1 Maryland Alternative R-value. Assemblies with R-value of insulation materials equal to or greater than that specified in Table R402.1.3.1 shall be an alternative to the U-factor in Table R402.1.2 when combined with Section R408.3. The provisions of Section R408.2.1 shall be applied to the base model house to establish the reference base design establishing energy efficiency."; and

(b) Add the following table:

Table R402.1.3.1

MD Alternative Insulation Minimum R-Values and Fenestration Requirements by Component[a]

Climate Zone	Fenestration U-Factor [b, i]	Skylight[b] U-Factor	Glazed Fenestration SHGC[b, e]	Ceiling R-Value	Wood Frame Wall R-Value[g]	Mass Wall R-Value[h]	Floor R-Value	Basement[c, g] Wall R-Value	Slab[d] R-Value & Depth	Crawl Space[c, g] Wall R-Value
4 except Marine	0.30	0.55	0.40	49	20 or 13+5[h]	8/13	19	10ci or 13	10ci, 4ft	10ci or 13
5	0.30[i]	0.55	0.40	49	20 or 13+5[h]	13/17	30	15ci or 19 or 13 + 5ci	10ci, 4ft	15ci or 19 Or 13 + 5ci

For SI: 1 foot = 304.8 mm.
ci = continuous insulation.

[a.] R-values are minimums. U-factors and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed R-value of the insulation shall be not less than the R-value specified in the table.

[b.] The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestrations. Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30.

[c.] "10ci or 13" means R-10 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "15ci or 19 or 13 & 5ci" means R-15 continuous insulation (ci) on the interior or exterior surface of the wall; or R-19 cavity insulation on the interior side of the wall; or R-13 cavity insulation on the interior of the wall in addition to R-5 continuous insulation on the interior or exterior surface of the wall.

[d.] R-5 insulation shall be provided under the full slab area of a heated slab in addition to the required slab edge insulation R-value for slabs. as indicated in the table.

The slab-edge insulation for heated slabs shall not be required to extend below the slab.
[e.] There are no SHGC requirements in the Marine Zone.
[f.] Basement wall insulation is not required in Warm Humid locations as defined by Figure R301.1 and Table R301.1.
[g.] The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, "13 & 5" means R-13 cavity insulation plus R-5 continuous insulation.
[h.] Mass walls shall be in accordance with Section R402.2.5. The second R-value applies where more than half of the insulation is on the interior of the mass wall.
[i.] A maximum U-factor of 0.32 shall apply in Climate Zones 3 through 8 to vertical fenestration products installed in buildings located either:
[1.] Above 4,000 feet in elevation, or
[2.] In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the International Residential Code.

(6) Modify Section R402.2.1 Ceilings with attic spaces with the following:

(a) Add "or Section R402.1.3.1" after "R402.1.3" and before "requires R-49 insulation"; and

(b) Add "or Section R402.1.3.1" after "R402.1.3" and before "requires R-60 insulation".

(7) Modify Section R402.2.2 Ceilings without attics with the following:

(a) Add "or Section R402.1.3.1" after "R402.1.3" and before "requires insulation R-values greater than R-30"; and

(b) Add "or R402.1.3.1" after "R402.1.3" and before "shall be limited to".

(8) Modify Section R408 Additional Efficiency Package Options:

(a) Add new Section "R408.3 Maryland Alternative Additional Energy Efficiency Package Options. The provisions of this Section shall be applied as part of the prescriptive compliance path of Section R402.1.3.1. Additional energy efficiencies from Table R408.3 must be selected to meet or exceed a minimum percentage increase of 6% for climate Zone 4 and 6% for Climate Zone 5."; and

(b) Add the following table: Table R408.3 Additional Energy Features[1]:

	Energy Feature	Percentage Increase for Climate Zone 4	Percentage Increase for Climate Zone 5
1	≥ 2.5% reduction in total UA[5]	1%	1%
2	≥ 5% reduction in total UA[5]	2%	3%
3	> 7.5% reduction in total UA[5]	2%	3%
4	0.22 U-factor windows[5]	3%	4%
5	High performance cooling system (Greater than or equal to 18 SEER and 14 EER air conditioner)[2]	3%	2%
6	High performance cooling system (Greater than or equal to 16 SEER and 12 EER air conditioner)[2]	3%	3%
7	High performance gas furnace (Greater than or equal to 96 AFUE natural gas furnace)[2]	5%	7%
8	High performance gas furnace (Greater than or equal to 92 AFUE natural gas furnace)[2]	4%	5%
9	High performance heat pump system (Greater than or equal to 10 HSPF/18 SEER air source heat pump.)[2]	6%	6%
10	High performance heat pump system (Greater than or equal to 9 HSPF/16 SEER air source heat pump.)[2]	5%	5%
11	Ground source heat pump (Greater than or equal to 3.5 COP ground source heat pump.)[2]	6%	8%
12	Fossil fuel service water heating system (Greater than or equal to 82 EF fossil fuel service water-heating system.)	3%	2%
13	High performance heat pump water heating system option (Greater than or equal to 2.9 UEF electric service water-heating system.)	8%	6%
14	High performance heat pump water heating system. (Greater than or equal to 3.2 UEF electric service water-heating system.)	8%	6%
15	Solar hot water heating system (Greater than or equal to 0.4 solar fraction solar water-heating system.)	6%	6%
16	More efficient HVAC distribution system. (100 percent of ductless thermal distribution system or hydronic thermal distribution system located completely inside the building thermal envelope.)	10%	12%

17	100% of ducts in conditioned space. (100 percent of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.)	12%	15%
18	Reduced total duct leakage. (When ducts are located outside conditioned space, the total leakage of the ducts, measured in accordance with R403.3.5, shall be in accordance with one of the following: a. Where air handler is installed at the time of testing, 2.0 cubic feet per minute per 100 square feet of conditioned floor area. b. Where air handler is not installed at the time of testing, 1.75 cubic feet per minute per 100 square feet of conditioned floor area.)	1%	1%
19	2 ACH50 air leakage rate with ERV or HRV installed. (Less than or equal to 2.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed.)[3]	10%	13%
20	2 ACH50 air leakage rate with balanced ventilation. (Less than or equal to 2.0 ACH50, with balanced ventilation as defined in Section 202 of the 2021 International Mechanical Code.)[4]	4%	5%
21	1.5 ACH50 air leakage rate with ERV or HRV installed. (Less than or equal to 1.5 ACH50, with either an ERV or HRV installed.)[4]	12%	15%
22	1 ACH50 air leakage rate with ERV or HRV installed. (Less than equal to 1.0 ACH50, with either an ERV or HRV installed.)4	14%	17%
23	Energy Efficient Appliances (Minimum 3 appliances not to exceed 1 form each type with follow efficiencies. Refrigerator - Energy Star Program Requirements, Product Specification for Consumer Refrigeration Products, Version 5.1 (08/05/2021), Dishwasher - Energy Star Program Requirements for Residential Dishwashers, Version 6.0 (01/29/2016), Clothes Dryer - Energy Star Program Requirements, Product Specification for Clothes Dryers, Version 1.1 (05/05/2017) and Clothes Washer - Energy Star Program Requirements, Product Specification for Clothes Washers, Version 8.1 (02/05/2018)	7%	5%
24	Renewable Energy Measure.[4]	11%	9%

[1.] Energy efficiency percentage increases as established by PNNL.

[2.] For multiple cooling systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the cooling design load. For multiple heating systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the heating design load. Increases to minimum efficiency requirements are limited to one selection.

[3.] Minimum HRV and ERV requirements, measured at the lowest tested net supply airflow, shall be greater than or equal to 75 percent Sensible Recovery Efficiency (SRE), less than or equal to 1.1 cubic feet per minute per watt (0.03 m3/min/watt) and shall not use recirculation as a defrost strategy. In addition, the ERV shall be greater than or equal to 50 percent Latent Recovery/ Moisture Transfer (LRMT).

[4.] Renewable energy resources shall be permanently installed that have the capacity to produce a minimum of 1.0 watt of on-site renewable energy per square foot of conditioned floor area. The installed capacity shall be in addition to any onsite renewable energy required by Section R404.4. To qualify for this option, one of the following forms of documentation shall be provided to the code official:

[a.] Substantiation that the RECs associated with the on-site renewable energy are owned by, or retired on behalf of, the homeowner.

[b.] A contract that conveys to the homeowner the RECs associated with the on-site renewable energy or conveys to the homeowner an equivalent quantity of RECs associated with other renewable energy.

[c.] Reduction in total UA from lines 1, 2 or 3 and higher performance windows from line 4 are limited to a single selection.

E. The Department encourages:

(1) Home builders to construct new high performance homes; and

(2) Local jurisdictions to amend these standards to allow builders to construct high performance homes.

.05 Maryland Building Performance Standards.

A. The IBC, IRC, and IECC, as modified in Regulation .04 of this chapter, shall constitute the Maryland Building Performance Standards.

B. Local Amendments.

(1) Each local jurisdiction:

(a) May by local amendment modify the provisions of the Standards to address conditions peculiar to the local jurisdiction's community;

(b) May adopt and amend the IGCC to be part of the Standards applicable in the local jurisdiction.

(c) May not adopt any amendments that weaken the requirements of the IECC or Chapter 13 of the IBC;

(d) Except as set forth in Public Safety Article, §12-504(a)(1)(iii), Annotated Code of Maryland, may not adopt any amendments that weaken the automatic fire sprinkler systems provisions for townhouses and one- and two-family dwellings contained in the Standards; and

(e) May not adopt amendments that weaken the wind design and wind–borne debris provisions contained in the Standards.

(2) If a local jurisdiction adopts a local amendment, the Standards as amended by the local jurisdiction shall apply in that local jurisdiction.

(3) If a local amendment conflicts with the provisions of the Standards, the provisions of the local amendment shall prevail in the local jurisdiction.

(4) Local amendments shall be submitted to the Department:

(a) At least 15 days before the effective date of the amendment; or

(b) In the case of an emergency adoption of a local amendment, within 5 days after the local amendment's adoption.

.06 Application of the Standards.

A. Except as provided in §§B and C of this regulation, the Standards shall apply to all buildings and structures within the State for which a building permit application is received by a local jurisdiction.

B. A local jurisdiction shall implement and enforce the Standards and any local amendments within 12 months of the effective date of any amendments by the Department to this chapter.

C. The provisions of Public Safety Article, §12-508, Annotated Code of Maryland, modify and determine the applicability of the Standards to agritourism.

.07 Utilization of Standards.

A. Central Data Base.

(1) The Department shall establish an automated central data base which shall contain or provide a link to access the following information:

(a) The Standards;

(b) Local amendments;

(c) State Fire Prevention Code and amendments to the State Fire Prevention Code promulgated by the State Fire Prevention Commission, or the State Fire Prevention Commission's successor;

(d) The fire codes adopted by the local jurisdictions and any amendments to them;

(e) The electrical code required under Public Safety Article, §12-603, Annotated Code of Maryland;

(f) Local amendments to the electrical code required under Public Safety Article, §12-603, Annotated Code of Maryland;

(g) Local code provisions that are more restrictive than the IECC as modified in Regulation .04 of this chapter and the energy code defined under Public Utilities Article, §7-401, Annotated Code of Maryland;

(h) The Maryland Building Rehabilitation Code; and

(i) Local amendments to the Maryland Building Rehabilitation Code.

(2) The Department may compile and include in the central data base:

(a) Any information provided by the local jurisdiction on the implementation and interpretation of the Standards by the local jurisdiction;

(b) Interim amendments to the IBC and IRC, including subsequent printing of the most recent edition; and

(c) Any other information the Department determines is relevant to the construction or rehabilitation of buildings and structures in the State.

(3) Software.

(a) The Department shall be responsible for the development and distribution among the local jurisdictions of software related to the operation of the central data base.

(b) Any software developed by or on behalf of the Department shall be owned by the Department, or the developer of the software.

(c) Neither the local jurisdiction nor any other user acquires any proprietary right in any of the ICC copyrighted material or ICC trademark contained in the software.

B. Voluntary Dispute Resolution.

(1) Upon the written request of a local jurisdiction and any person aggrieved by the Standards or any local amendments to them, the Codes Administration shall conduct an informal mediation or conciliation with the local jurisdiction and any person aggrieved by the Standards or any local amendments to them.

(2) The aggrieved person and the local jurisdiction shall each submit to the Codes Administration a written statement of the dispute and include any related material either party feels is appropriate. In addition to the written statement, either party may request a meeting with the other party and the Codes Administration to discuss the dispute.

(3) Within the latter to occur of 30 days of receipt of both statements of the disputed and any related material, or 30 days after a meeting conducted in accordance with §B(2) of this regulation, the Director of the Codes Administration shall issue a decision on behalf of the Department regarding resolution of the dispute.

(4) Within 15 days of the date of the decision of the Director of the Codes Administration, either party may appeal to the Secretary of the Department or the Secretary's designee, in writing. The Secretary of the Department or the Secretary's designee shall respond to the appeal within 15 days of receipt of the appeal.

(5) Neither a decision by the Codes Administration nor the Department under §B(3) or (4) of this regulation shall constitute a contested case proceeding under the Maryland Administrative Procedure Act and is not subject to the provisions of COMAR 09.01.02.

.08 Enforcement of the Standards.

Enforcement of the Standards shall be the responsibility of the local jurisdiction in which the building or structure is located.

.09 Enforcement of State Fire Code Requirements.

There is a State Fire Code, Public Safety Article 38A, §§6-101—6-602, Annotated Code of Maryland, and COMAR 29.06.01, which requires enforcement of the Fire Code by the State Fire Marshal or authorized fire official.

Administrative History

Effective date:

Regulations .01—.09 adopted as an emergency provision effective January 13, 1995 (22:3 Md. R. 148); adopted permanently effective June 5, 1995 (22:11 Md. R. 818)

Regulation .02 amended effective October 15, 2001 (28:5 Md. R. 548); September 20, 2004 (31:6 Md. R. 507); January 1, 2010 (36:22 Md. R. 1722)

Regulation .03B amended effective April 7, 1997 (24:7 Md. R. 552); October 15, 2001 (28:5 Md. R. 548); September 20, 2004 (31:6 Md. R. 507); July 16, 2007 (34:14 Md. R. 1245); January 1, 2012 (38:24 Md. R. 1500)

Regulation .04 amended effective October 15, 2001 (28:5 Md. R. 548); September 20, 2004 (31:6 Md. R. 507); July 1, 2007 (34:7 Md. R. 696); January 1, 2010 (36:22 Md. R. 1722); January 1, 2012 (38:24 Md. R. 1500); October 29, 2012 (39:21 Md. R. 1377); January 1, 2015 (41:25 Md. R. 1476)

Regulation .04A, B amended and C adopted effective April 7, 1997 (24:7 Md. R. 552)

Regulation .04A, D amended effective October 29, 2012 (39:21 Md. R. 1377)

Regulation .05 amended effective March 15, 2001 (28:5 Md. R. 548); September 20, 2004 (31:6 Md. R. 507); January 1, 2010 (36:22 Md. R. 1722)

Regulation .05B amended effective October 29, 2012 (39:21 Md. R. 1377); January 1, 2015 (41:25 Md. R. 1476)

Regulation .05C adopted effective October 29, 2012 (39:21 Md. R. 1377)

Regulation .05C repealed effective January 1, 2015 (41:25 Md. R. 1476)

Regulation .06 amended effective April 7, 1997 (24:7 Md. R. 552); October 15, 2001 (28:5 Md. R. 548); September 20, 2004 (31:6 Md. R. 507); July 16, 2007 (34:14 Md. R. 1245)

Regulation .06B amended effective January 1, 2010 (36:22 Md. R. 1722)

Regulation .07 amended effective April 7, 1997 (24:7 Md. R. 552); October 15, 2001 (28:5 Md. R. 548); September 20, 2004 (31:6 Md. R. 507)

Regulation .07A amended effective January 1, 2010 (36:22 Md. R. 1722)

Regulation .09 amended effective April 7, 1997 (24:7 Md. R. 552)

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Chapter recodified from COMAR 05.02.07 to COMAR 09.12.51 effective March 25, 2019 (46:6 Md. R. 345)

Regulation .03B amended effective March 25, 2019 (46:6 Md. R. 345)

Regulation .04 amended effective March 25, 2019 (46:6 Md. R. 345); May 29, 2023 (50:10 Md. R. 407)

Regulation .06B, C amended effective March 25, 2019 (46:6 Md. R. 345)

Regulation .07B amended effective March 25, 2019 (46:6 Md. R. 345)