

COUNTY COUNCIL OF ANNE ARUNDEL COUNTY, MARYLAND

Legislative Session 2024, Legislative Day No. 7

Bill No. 25-24

Introduced by Ms. Pickard, Chair
(by request of the County Executive)

By the County Council, April 1, 2024

Introduced and first read on April 1, 2024
Public Hearing set for and held on May 6, 2024
Bill Expires July 5, 2024

By Order: Laura Corby, Administrative Officer

A BILL ENTITLED

1 AN ORDINANCE concerning: Construction and Property Maintenance Codes – Codes
2 and Supplements

3
4 FOR the purpose of adopting and amending certain construction codes; making certain
5 technical corrections to construction codes; and generally relating to construction
6 codes.

7
8 BY repealing and reenacting, with amendments: §§ 15-2-101 through 15-2-105; 15-2-
9 202(a); 15-2-301; 15-2-402(a); and 15-2-502(a)
10 Anne Arundel County Code (2005, as amended)

11
12 BY repealing: International Residential Code Amendments, Item (24); and National
13 Electrical Code Amendments, Items (3) through (8)
14 Anne Arundel County Construction and Property Maintenance Codes Supplement,
15 October 1, 2005 (as amended)

16
17 BY renumbering: Construction Code, Chapter 1, §§ 105.3.2 through 105.3.4 to be 105.3.6
18 through 105.3.8, respectively; International Building Code Amendments, Items (5)
19 through (7), and (8) through (23) to be Items (6) through (8), and (13) through (28),
20 respectively; International Residential Code Amendments, Items (5) through (16), (17),
21 (18), (19), (20), (21), (22), (23), (25) through (29), and (30) through (35) to be Items
22 (7) through (18), (20), (19), (21), (22), (24), (30), (31), (34) through (38), and (40)
23 through (45), respectively; and International Plumbing Code Amendments, Items (3)

EXPLANATION: CAPITALS indicate new matter added to existing law.
[[Brackets]] indicate matter deleted from existing law.
Captions and taglines in **bold** in this bill are catchwords and are not law.
Asterisks *** indicate existing Code provisions in a list or chart that remain unchanged.

through (13), and (14) through (20) to be Items (4) through (14), and (16) through (22), respectively

Anne Arundel County Construction and Property Maintenance Codes Supplement, October 1, 2005 (as amended)

BY repealing and reenacting, with amendments: Construction Code, Introduction and Chapter 1, §§ 101.2.1, 101.2.2, 101.4, 101.4.1 through 101.4.8, 105.1, 105.2.1.2, 105.5.4, 105.5.5, 105.7, 107.3, 109.5.1, 109.5.2, and 115.5; International Building Code Amendments, Introduction, Items (13), (14), (20) and (22); International Residential Code Amendments, Introduction and Items (4), (10), (17), (20) and (31); International Energy Conservation Code Amendments, Introduction; International Existing Building Code Amendments, Introduction; National Electrical Code Amendments, Introduction and Item (1); International Fuel Gas Code Amendments, Introduction; International Mechanical Code Amendments, Introduction and Item (11); International Plumbing Code Amendments, Introduction and Items (6), (11), (12), (21) and (22); and International Swimming Pool and Spa Code Amendments, Introduction Anne Arundel County Construction and Property Maintenance Codes Supplement, October 1, 2005 (as amended)
(as enacted by Section 3 of this Ordinance)

BY adding: Construction Code, Chapter 1, §§ 101.4.9, 105.3.2 through 105.3.5, 109.5.2.1, 109.5.2.2, and 114.2.1; International Building Code Amendments, Items (5), (9) through (12), and (29); International Residential Code Amendments, Items (5), (6), (23), (25) through (29), (32), (33) and (39); International Energy Conservation Code Amendments, Items (3) through (7); National Electrical Code Amendments, Items (3) through (13); International Fuel Gas Code Amendments, Item (3); International Mechanical Code Amendments, Item (12); International Plumbing Code Amendments, Items (3) and (15); and International Swimming Pool and Spa Code Amendments, Items (3) through (6)
Anne Arundel County Construction and Property Maintenance Codes Supplement, October 1, 2005 (as amended)

SECTION 1. *Be it enacted by the County Council of Anne Arundel County, Maryland,*
That Section(s) of the Anne Arundel County Code (2005, as amended) read as follows:

ARTICLE 15. CONSTRUCTION AND PROPERTY MAINTENANCE CODES

TITLE 2. CONSTRUCTION CODES

15-2-101. International Building Code.

The “[2018] 2021 International Building Code”, as published by the International Code Council, Inc., is adopted by reference as the Building Code for the County with the additions, insertions, omissions, and changes set forth in the Supplement.

15-2-102. International Residential Code.

The “[2018] 2021 International Residential Code for One- and Two-Family Dwellings”, as published by the International Code Council, Inc., is adopted by reference

as part of this Building Code for buildings described in section 101.2 of “Chapter 1 - Construction Code Administrative Provisions” as set forth in the Supplement.

15-2-103. International Energy Conservation Code.

The “[2018] 2021 International Energy Conservation Code”, as published by the International Code Council, Inc., is adopted by reference as part of this Building Code with the additions, insertions, omissions, and changes set forth in the Supplement.

15-2-104. International Existing Building Code.

The “[2018] 2021 International Existing Building Code”, as published by the International Code Council, Inc., is adopted by reference as part of this Building Code with the additions, insertions, omissions, and changes set forth in the Supplement.

15-2-105. International Swimming Pool and Spa Code.

The “[2018] 2021 International Swimming Pool and Spa Code”, as published by the International Code Council, Inc., is adopted by reference as part of this Building Code with the additions, insertions, omissions, and changes set forth in the Supplement.

15-2-202. National Electrical Code.

(a) **Adoption.** The “National Electrical Code (NFPA 70)”, [2017] 2020 Edition, as published by the National Fire Protection Association, is adopted by reference as the Electrical Code for the County, with the additions, insertions, omissions, and changes set forth in the Supplement.

15-2-301. Adoption.

The “[2018] 2021 International Fuel Gas Code”, as published by the International Code Council, Inc., is adopted by reference as the Fuel Gas Code for the County, with the additions, insertions, omissions, and changes set forth in the Supplement.

15-2-402. International Mechanical Code.

(a) **Adoption.** The “[2018] 2021 International Mechanical Code”, as published by the International Code Council, Inc., is adopted by reference for the control of matters pertaining to the designing, installing, servicing, altering, remodeling, or repairing of heating systems, cooling systems, or refrigeration systems, as the Mechanical Code for the County, with the additions, insertions, omissions, and changes set forth in the Supplement.

15-2-502. International Plumbing Code.

(a) **Adoption.** The “[2018] 2021 International Plumbing Code”, as published by the International Code Council, Inc., is adopted by reference as the Plumbing Code for the County with the additions, insertions, omissions, and changes set forth in the Supplement.

SECTION 2. *And be it further enacted*, That International Residential Code Amendments, Item (24); and National Electrical Code Amendments, Items (3) through (8), Anne Arundel County Construction and Property Maintenance Codes Supplement, October 1, 2005 (as amended), be and they are hereby repealed.

SECTION 3. *And be it further enacted*, That Construction Code, Chapter 1, §§ 105.3.2 through 105.3.4; International Building Code Amendments, Items (5) through (7), and (8) through (23); International Residential Code Amendments, Items (5) through (16), (17), (18), (19), (20), (21), (22), (23), (25) through (29), and (30) through (35); and International Plumbing Code Amendments, Items (3) through (13), and (14) through (20), respectively, Anne Arundel County Construction and Property Maintenance Codes Supplement, October 1, 2005 (as amended), are hereby renumbered to be Construction Code, Chapter 1, §§ 105.3.6 through 105.3.8; International Building Code Amendments, Items (6) through (8), and (13) through (28); International Residential Code Amendments, Items (7) through (18), (20), (19), (21), (22), (24), (30), (31), (34) through (38), and (40) through (45); and International Plumbing Code Amendments, Items (4) through (14), and (16) through (22), respectively.

SECTION 4. *And be it further enacted*, That the Anne Arundel County Construction and Property Maintenance Codes Supplement, October 1, 2005 (as amended) (as enacted by Section 3 of this Ordinance) read as follows:

**ANNE ARUNDEL COUNTY
CONSTRUCTION AND PROPERTY MAINTENANCE CODES SUPPLEMENT
October 1, 2005**

CONSTRUCTION CODE

The following “Chapter 1 – Construction Code Administrative Provisions” is intended to replace Chapter 1 of each of the following adopted codes: the [[2018]] 2021 International Building Code, the [[2018]] 2021 International Residential Code for One- and Two-Family Dwellings, the [[2018]] 2021 International Energy Conservation Code, the [[2018]] 2021 International Fuel Gas Code, the [[2018]] 2021 International Mechanical Code, the [[2018]] 2021 International Plumbing Code, and the [[2018]] 2021 International Swimming Pool and Spa Code. This chapter is also intended to [[replace]] BECOME Article 80 of the National Electrical Code, [[2017]] 2020 edition.

Chapter 1

Construction Code Administrative Provisions

**Section 101
Administration**

101.2.1 Detached one- and two-family dwellings and multiple single-family dwellings. Detached one- and two-family dwellings, recovery residences as defined in § 18-1-101 of the County Code that comply with § 15-3-102(a)(2) of the County Code, and multiple single-family dwellings (townhouses) not more than three stories above grade

1 plane in height with a separate means of egress and their accessory structures shall comply
2 with the [[2018]] 2021 International Residential Code.

3
4 ***

5
6 **101.2.2 Existing Buildings.** Existing buildings undergoing repair, alterations or
7 additions, and change of occupancy shall be permitted to comply with the [[2018]] 2021
8 International Existing Building Code.

9
10 **101.4 Referenced codes.** The other codes [[listed]] SPECIFIED in sections 101.4.1 through
11 [[101.4.8]] 101.4.9 AND REFERENCED ELSEWHERE IN THIS CODE shall be considered part of
12 the requirements of the Construction Code. [[Except where enforcement of a code
13 provision would violate the conditions of the listing of the equipment or appliance, the
14 conditions of the listing and manufacturer's instructions shall apply.]]

15
16 **101.4.1 Building.** The provisions of the [[2018]] 2021 International Building Code shall
17 apply to the design and the construction, alteration, movement, enlargement, replacement,
18 repair, equipment, use and occupancy, location, maintenance, removal, and demolition of
19 every building or structure or any appurtenances connected or attached to such buildings
20 or structures. The following appendices are adopted as part of the Building Code: Appendix
21 C "Group U-Agricultural Buildings", Appendix E "Supplementary Accessibility
22 Requirements", Appendix F "Rodentproofing", Appendix G "Flood-Resistant
23 Construction", and Appendix I "Patio Covers".

24
25 **101.4.2 Electrical.** The provisions of the National Electrical Code, [[2017]] 2020
26 edition (NFPA 70), shall apply to the installation of electrical systems, including
27 alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and
28 appurtenances thereto.

29
30 **101.4.3 Gas.** The provisions of the [[2018]] 2021 International Fuel Gas Code shall
31 apply to the installation of gas piping from the point of delivery, gas appliances, and related
32 accessories as covered in the Construction Code. These requirements apply to gas piping
33 systems extending from the point of delivery to the inlet connections of appliances and the
34 installation and operation of residential and commercial gas appliances and related
35 accessories. The following appendices are adopted as part of the Fuel Gas Code: Appendix
36 A (IFGS) "Sizing and Capacities of Gas Piping", Appendix B (IFGS) "Sizing of Venting
37 Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances[[,]] and
38 Appliances Listed for Use with Type B Vents", and Appendix C (IFGS) "Exit Terminals
39 of Mechanical Draft and Direct-Vent Venting Systems".

40
41 **101.4.4 Mechanical.** The provisions of the [[2018]] 2021 International Mechanical
42 Code shall apply to the installation, alterations, repairs, and replacement of mechanical
43 systems, including equipment, appliances, fixtures, fittings, and/or appurtenances,
44 including ventilating, heating, cooling, air-conditioning and refrigeration systems,
45 incinerators, and other energy-related systems. The following appendix is adopted as part
46 of the Mechanical Code: Appendix A "[[Combustion Air Openings and]] Chimney
47 Connector Pass-Throughs".

1 **101.4.5 Plumbing.** The provisions of the [[2018]] 2021 International Plumbing Code
2 shall apply to the installation, alteration, repair and replacement of plumbing systems,
3 including equipment, appliances, fixtures, fittings and appurtenances, and, where
4 connected to a water or sewage system, [[and]] all aspects of a medical gas system. The
5 following appendices are adopted as part of the Plumbing Code: Appendix B “Rates of
6 Rainfall for Various Cities”, [[Appendix C “Gray Water Recycling Systems”,]] Appendix
7 D “Degree Day and Design Temperatures”, AND Appendix E “Sizing of Water Piping
8 System” [[, and Appendix G “Vacuum Drainage System”]]. The provisions of the Anne
9 Arundel County Private Sewage Disposal and Well Code shall apply to private sewage
10 disposal systems.

11
12 **101.4.6 Energy.** The provisions of the [[2018]] 2021 International Energy Conservation
13 Code shall apply to all matters governing the design and construction of [[commercial]]
14 APPLICABLE buildings for energy efficiency.

15
16 **101.4.7 Residential.** The provisions of the [[2018]] 2021 International Residential Code
17 for One- and Two-Family Dwellings shall apply to all matters governing the design and
18 construction of detached one- and two-family dwellings and multiple single-family
19 dwellings (townhouses) not more than three stories above grade plane in height with a
20 separate means of egress and their accessory structures. The following appendices are
21 adopted as part of the Residential Code: Appendix [[A]] AA “Sizing and Capacities of Gas
22 Piping”, Appendix [[B]] AB “Sizing of Venting Systems Serving Appliances Equipped
23 with Draft Hoods, Category I [[“]]Appliances[[,]] and Appliances Listed for Use with Type
24 B Vents”, Appendix [[C]] AC “Exit Terminals of Mechanical Draft and Direct-Vent
25 Venting Systems”, Appendix [[E]] AE “Manufactured Housing Used as Dwellings”,
26 Appendix [[G]] AG “Piping Standards For Various Applications”, Appendix [[H]] AH
27 “Patio Covers”, Appendix [[J]] AJ “Existing Buildings and Structures”, Appendix [[K]] AK
28 “Sound Transmission”, Appendix [[N]] AN “Venting Methods”, Appendix [[O]] AO
29 “Automatic Vehicular Gates”, Appendix [[P]] AP “Sizing Of Water Piping System”,
30 Appendix [[Q]] AQ “Tiny Houses”, Appendix [[R]] AR “Light Straw-Clay Construction”,
31 and Appendix [[S]] AS “Strawbale Construction”.

32
33 **101.4.8 Swimming pools and spas.** The provisions of the [[2018]] 2021 International
34 Swimming Pool and Spa Code shall apply to the construction, alteration, movement,
35 renovation, replacement, repair, and maintenance of aquatic recreation facilities, pools, and
36 spas. The swimming pools and spas covered by this code are either permanent or
37 temporary, and shall be only those that are designed and manufactured to be connected to
38 a circulation system and that are intended for swimming, bathing, or wading.

39
40 **101.4.9 Existing buildings.** THE PROVISIONS OF THE 2021 INTERNATIONAL EXISTING
41 BUILDING CODE SHALL APPLY TO ALL MATTERS GOVERNING REPAIRS TO, ALTERATIONS
42 OF, ADDITIONS TO, AND CHANGES OF TENANCY, USE, OR OCCUPANCY OF EXISTING
43 STRUCTURES.

44 45 **Section 105**

46 **Permits**

47
48 **105.1 Required.** Any owner or authorized agent who intends to construct, enlarge, alter,
49 repair, move, demolish, or change the USE, TENANT, OR occupancy of a building or
50 structure, or to erect, install, enlarge, alter, repair, remove, convert, or replace any

1 electrical, gas, mechanical, or plumbing system, the installation of which is regulated by
2 the Construction Code, or to cause any such work to be done, shall first make application
3 to the Code Official and obtain the required permit.

4
5 ***
6

7 **105.2 Work exempt from permit.** Exemptions from permit requirements of the
8 Construction Code may not be deemed to grant authorization for any work to be done in
9 any manner in violation of the provisions of the Construction Code or any other laws or
10 ordinances of this County. Permits shall not be required for the following:

11
12 **105.2.1 Building:**

13
14 **105.2.1.2 Fences ACCESSORY TO A RESIDENTIAL STRUCTURE** not over 6 feet (1829
15 mm) high, except that permits are required for fences located on waterfront property and
16 corner lots with intersecting streets.

17
18 **105.3.2 Application for electrical permit.** TO OBTAIN AN ELECTRICAL PERMIT, THE
19 APPLICANT SHALL BE THE HOLDER OF THE APPLICABLE LICENSE DESCRIBED UNDER § 11-
20 4-302(B) OR (D) OF THE COUNTY CODE.

21
22 **105.3.3 Application for gas permit.** TO OBTAIN A GAS PERMIT, THE APPLICANT SHALL
23 BE THE HOLDER OF THE APPLICABLE LICENSE DESCRIBED UNDER § 11-4-401(2) OR (3) OF
24 THE COUNTY CODE.

25
26 **105.3.4 Application for mechanical permit.** TO OBTAIN A MECHANICAL PERMIT, THE
27 APPLICANT SHALL BE THE HOLDER OF THE APPLICABLE LICENSE DESCRIBED UNDER § 11-
28 4-502(B) OR (C) OF THE COUNTY CODE.

29
30 **105.3.5 Application for plumbing permit.** TO OBTAIN A PLUMBING PERMIT, THE
31 APPLICANT SHALL BE THE HOLDER OF THE APPLICABLE LICENSE DESCRIBED UNDER § 11-
32 4-605(A), (C), OR (D) OF THE COUNTY CODE.

33
34 **105.5.4 Permit extension.** Upon written request filed with the Department prior to
35 permit expiration, and if the Department finds that a hardship exists, the times set forth in
36 section 105.5 may be extended for up to one additional year from the date of expiration. A
37 permit that is extended is subject to a \$25.00 fee. [[A renewed permit may not be
38 extended.]]

39
40 **105.5.5 Permit renewal.** Upon written request filed with the Department no later than
41 [[six months]] ONE YEAR after permit expiration, OR A LONGER PERIOD AT THE SOLE
42 DISCRETION OF THE CODE OFFICIAL, and if the Department finds that a hardship exists, an
43 expired permit may be renewed for up to one additional year from the date of [[expiration]]
44 THE RENEWAL REQUEST. A permit that is renewed is subject to a \$25.00 fee. A permit that
45 has been [[extended]] RENEWED must comply with the Construction Codes adopted in
46 Article 15 of the County Code at the time of the [[extension]] RENEWAL.

47
48 **105.7 Placement of permit.** The [[building]] permit or copy shall be kept on the site of the
49 work until the completion of the project.

Section 107

Temporary Structures and Uses

107.3 Temporary power. The Code Official is authorized to give permission to temporarily supply and use power as part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat, or power in the [[National Electrical Code, 2017 edition]] ELECTRICAL CODE FOR THE COUNTY.

Section 109

Inspections

109.5 Electrical.

109.5.1 Underground. Underground inspection shall be made after trenches or ditches are excavated and bedded, piping and conductors installed, and before backfill is put in place. Where excavated soil contains rocks, broken concrete, frozen chunks, and other rubble that would damage or break the raceway, cable, or conductors, or where corrosive action will occur, protection shall be provided in the form of granular or selected material, [[approved running boards,]] sleeves, or other means.

109.5.2 Bonding for swimming pools and spas. [[For swimming pools and spas, a bonding inspection shall be made after all steel grillage is installed but before perimeter decking materials are installed.]]

109.5.2.1 Pool shell bonding. POOL SHELL BONDING INSPECTIONS SHALL BE MADE AFTER THE INSTALLATION OF ALL CONDUCTIVE GRILLAGE, UNDERWATER LUMINAIRES, OR CONDUCTIVE POOL APPURTENANCES, BUT BEFORE SHELL OR PERIMETER DECKING MATERIALS ARE INSTALLED.

109.5.2.2 Pool and spa perimeter surface bonding. POOL AND SPA PERIMETER SURFACE BONDING INSPECTIONS SHALL BE MADE AFTER FINAL GRADE HAS BEEN DETERMINED AND REQUIRED CONDUCTIVE PERIMETER COMPONENTS AND APPURTENANCES ARE INSTALLED, BUT BEFORE PERIMETER DECKING MATERIALS ARE INSTALLED.

Section 114

Stop Work Order

114.2.1 Emergencies. WHEN AN EMERGENCY EXISTS, THE CODE OFFICIAL SHALL NOT BE REQUIRED TO GIVE A WRITTEN NOTICE PRIOR THE STOPPING THE WORK.

Section 115

Unsafe Structures, Systems, and Equipment

115.5 Restoration The structure, system, or equipment determined to be unsafe by the Code Official is permitted to be restored to a safe condition. To the extent that repairs, alterations, or additions are made or a change of occupancy occurs during the restoration

of the structure, such repairs, alterations, additions, or change of occupancy shall comply with the requirements of [[section 105.2.2 and Chapter 34 of the Building]] THIS Code.

INTERNATIONAL BUILDING CODE AMENDMENTS

The provisions of the [[2018]] 2021 International Building Code are amended, deleted, or corrected as follows and the following provisions shall supersede the part of the text of the [[2018]] 2021 International Building Code as indicated:

(5) AFTER SECTION 308.5, INSERT:

“EXCEPTION: A CHILDCARE FACILITY MAY BE CLASSIFIED AS I-4 IF THE FACILITY IS CLASSIFIED AS A DAY CARE OCCUPANCY UNDER THE STATE FIRE PREVENTION CODE.”

(9) STRIKE SECTION 411.5, CONDITION 3. IN ITS ENTIRETY AND SUBSTITUTE:

“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, AND A MANUAL CONTROL AT A CONSTANTLY ATTENDED LOCATION, AND SHALL HAVE A READILY ACCESSIBLE CONTROL LOCATED INSIDE EACH PUZZLE ROOM.”

(10) STRIKE SECTION 510.2, CONDITION 4. IN ITS ENTIRETY.

(11) IN SECTION 510.2, CONDITION 7, STRIKE THE COMMA AND SUBSTITUTE A PERIOD; AND STRIKE “*GRADE PLANE*” AND SUBSTITUTE “LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS”.

(12) IN SECTION 1004.8, AFTER “TELEPHONE CALL CENTERS,” INSERT “NAIL SALONS,”.

(13) In section [[1101.2]] 1102.1, after “ICC A117.1.”, insert “All buildings and portions thereof shall comply with the provisions of the “Maryland Accessibility Code” (Code of Maryland Regulations [[05.02.02]] 09.12.53). Where conflicts between the two Codes exist, the stricter requirements shall be followed.”

(14) In section 1612.3, insert “Anne Arundel County, Maryland,” in the space indicated and insert [[“05/02/1983”]] “OCTOBER 16, 2012, REVISED FEBRUARY 18, 2015” in the space indicated.

(20) After section 1805.4.3, insert:

“1805.4.4 Areaway drains. All open subsurface space adjacent to a building serving as an exit or entrance shall be provided with a drain or drains. All areaway drains shall be solid PVC or equivalent and shall discharge directly to a sump crock, daylight, or other approved means. No areaway drain may discharge into a subsoil drain. Drains serving areaways not exceeding 100 square feet shall have a minimum 2-inch diameter pipe. Areaway drains exceeding 100 square feet but not exceeding 1,000 square feet shall have a minimum 3-inch diameter pipe. Areaway drains exceeding 1,000 square feet shall be sized in accordance with the [[2018]] 2021 International Plumbing Code.

1805.4.5 Window well drains. Window well areaways shall have drains. ALL WINDOW WELL DRAINS SHALL BE SOLID PVC OR EQUIVALENT AND SHALL DISCHARGE DIRECTLY TO A SUMP PUMP CROCK, DAYLIGHT, OR OTHER APPROVED MEANS. NO

WINDOW WELL DRAIN MAY DISCHARGE INTO A SUBSOIL DRAIN. Window well areaways 10 square feet or less may ~~[[discharge to the subsoil drain through]]~~ SHALL HAVE a 2-inch minimum diameter pipe. Drains for window well areaways greater than 10 square feet shall be installed in accordance with section 1805.4.4.

(22) After section 1809.8, insert:

“1809.8.1 Electrode. In all buildings a concrete-encased electrode shall be provided prior to placement of concrete in accordance with section 250.52(a)(3) of the National Electrical Code, ~~[[2017]]~~ 2020 edition.”

(29) THE DOCUMENT ENTITLED “REQUIRED CHANGES TO THE 2021 INTERNATIONAL BUILDING CODE TO COMPLY WITH THE A2L REFRIGERANT RELATED CODE PROVISIONS OF THE 2024 I-CODES”, PUBLISHED BY THE INTERNATIONAL CODE COUNCIL AND DATED MARCH 1, 2023, AND AS AMENDED FROM TIME TO TIME, IS HEREBY INCORPORATED BY REFERENCE.

INTERNATIONAL RESIDENTIAL CODE AMENDMENTS

The provisions of the ~~[[2018]]~~ 2021 International Residential Code for One- and Two-Family Dwellings are amended, deleted, or corrected as follows and the following provisions shall supersede the part of the text of the ~~[[2018]]~~ 2021 International Residential Code for One- and Two-Family Dwellings as indicated:

(4) In Table R301.2 (1): Under “Ground snow load”, insert “25”; under “Speed (mph)”, insert “115”; under “Topographic effects”, insert “no”; under “Special wind region”, insert “no”; under “Wind-borne debris zone”, insert “no”; under “Seismic design category”, insert “A”; under “Weathering”, insert “Severe”; under “Frost line depth”, insert “30 inches”; under “Termite”, insert “Moderate - heavy”; after the column headed “Subject to damage from” add a new column with the heading “Decay” and under that heading insert “Slight - moderate”; ~~[[under “Winter design temp”, insert “17 degrees”];]~~ under “Ice barrier underlayment required”, insert “Yes”; under “Flood hazards”, insert “ORIGINALLY MAY 2, 1983, CURRENTLY OCTOBER 16, 2012, REVISED FEBRUARY 18, 2015”; under “Air freezing index”, insert “>1500”; AND under “Mean annual temp”, insert “55 degrees”~~[[;~~ under “coincident wet bulb”, insert “74%”; under “winter humidity”, insert “30%”; and under “summer humidity”, insert “50%.”~~]]~~. For Manual J design criteria, ~~[[under “latitude”, insert “39.20”; under “winter heating”, insert “17”; under “summer cooling”, insert 89; under “altitude correct factor”, insert “none”; under “design temperature”, insert “70f”; under “design temperature cooling”, insert “75f”; under “heating temperature difference”, insert “55f”; and under “wind velocity cooling” and “wind velocity heating”, in both instances, insert 7.5f]]~~ UNDER “ELEVATION”, INSERT “154”; UNDER “ALTITUDE CORRECTION FACTOR”, INSERT “NONE”; UNDER “COINCIDENT WET BULB”, INSERT “74”; UNDER “INDOOR WINTER DESIGN DRY-BULB TEMPERATURE”, INSERT “70F”; UNDER “INDOOR WINTER DESIGN DRY-BULB TEMPERATURE”, INSERT “70F”; UNDER “OUTDOOR WINTER DESIGN DRY-BULB TEMPERATURE”, INSERT “17F”; UNDER “HEATING TEMPERATURE DIFFERENCE”, INSERT “53F”; UNDER “LATITUDE”, INSERT “39”; UNDER “DAILY RANGE”, INSERT “M”; UNDER “INDOOR SUMMER DESIGN RELATIVE HUMIDITY”, INSERT “50%”; UNDER “SUMMER DESIGN GAINS”, INSERT “36”; UNDER “INDOOR SUMMER DESIGN DRY-BULB TEMPERATURE”, INSERT “75F”; UNDER “OUTDOOR SUMMER DESIGN

1 DRY-BULB TEMPERATURE”, INSERT “91F”; AND UNDER “COOLING TEMPERATURE
2 DIFFERENCE”, INSERT “16F”.

3
4 (5) IN SECTION R312.1.1, AFTER “STAIRS”, INSERT “, DRIVEWAYS, AREAWAYS”.

5
6 (6) IN SECTION R312.1.2, AFTER “STAIRS”, INSERT “, DRIVEWAYS, AREAWAYS”.

7
8 (10) In section R322.1.6, in the first sentence, after [“R322.2.”] “R322.3.”, insert:

9
10 “All electrical [[panelboards]] EQUIPMENT CONTAINING OVERCURRENT DEVICES
11 shall be elevated to a minimum of 3 feet above design flood elevation.”

12
13 (17) In section R403.1, after “ACI 332.”, insert “In all buildings a concrete-encased
14 electrode shall be provided prior to the placement of concrete in accordance with section
15 250.52(a)(3) of the National Electrical Code, [[2017]] 2020 edition.

16
17 (20) After section [[R405.1]] 405.2.3, insert:

18
19 “[[R405.1.1]] **R405.3 Subsoil drainage systems.** Subsoil drains shall be required
20 for all buildings having basements, cellars, crawl spaces, or floors below grade. Subsoil
21 drains shall be located inside and outside of the foundation and shall be installed at or below
22 the area to be protected. Drains shall discharge by gravity or mechanical means into an
23 approved drainage system in accordance with section [[R405.1.2]] R405.3.1. Drains shall be
24 perforated or open joint approved drain tile not less than 3 inches in diameter and be placed
25 in gravel, slag, or crushed rock or other approved material at least one sieve size larger than
26 the tile joint opening or perforations with a minimum of 4 inches surrounding the drain tile
27 or pipe on all sides. Exterior drains shall have an approved filter material placed on top of
28 the required gravel stone or crushed rock.

29
30 [[R405.1.2]] **R405.3.1 Sump pumps and pits.** Where subsoil drains do not
31 discharge by gravity, the drains shall discharge to an accessible sump pit with an automatic
32 electric pump. THE SUMP PUMP SHALL BE INSTALLED ON THE INTERIOR OF THE
33 STRUCTURE. The sump pit shall be a minimum of 18 inches in diameter and 24 inches in
34 depth, and be provided with a fitted cover. The sump pump shall have adequate capacity
35 to discharge all water coming into the sump as it accumulates but in no case shall the
36 capacity of the pump be less than 15 gallons per minute. The discharge from the pump shall
37 be a minimum of 1 1/4 inches and shall have a union in the discharge piping to make the
38 pump accessible for servicing. When not serving a continuous flowing spring or ground
39 water the sump pump may discharge onto a splash block not less than 24 inches in length.
40 The discharge pipe shall be located within 4 inches of the splash block and positioned to
41 divert the flow parallel to the splash block. Subsoil drains and sump pump discharge may
42 discharge to a properly graded open area provided the point of discharge is 5 feet from any
43 property line. Where a continuous flowing spring or groundwater is encountered, subsoil
44 and sump pump discharge lines must be piped to a storm drain or approved water course.
45 When piped to a storm drain all drainage lines shall be provided with an accessible
46 backwater valve.

47
48 [[R405.1.3]] **R405.3.2 Areaway drains.** All open subsurface space adjacent to a
49 building serving as an exit or entrance shall be provided with a drain or drains. All areaway
50 drains shall be solid PVC or equivalent and shall discharge directly to a sump crock,

[[R405.1.5]] R405.3.3 Foundation weep holes. Where subsoil drains are required by section [[R405.1.1]] R405.3, foundations of hollow core masonry shall have foundation weep holes. Weep holes shall be placed a maximum of 4 foot O/C intervals and shall discharge into the aggregate of the interior subsoil drainage system.”

(25) IN SECTION N1101.13.5, AFTER ITEM 3, INSERT:

(26) AFTER SECTION N1102.1.3, INSERT:

“N1102.1.3.1 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 N1102.1.2 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.

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 ^{T, 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

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."

(27) IN SECTION N1102.2.1, AFTER "N1102.1.3", INSERT "OR SECTION N1102.1.3.1".

(28) IN SECTION N1102.2.2, AFTER "N1102.1.3", INSERT "OR SECTION N1102.1.3.1".

(29) AFTER SECTION N1108.2.5, INSERT:

"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%.

TABLE N1108.3 ADDITIONAL ENERGY FEATURES ¹		
	ENERGY FEATURE	PERCENTAGE INCREASE FOR CLIMATE ZONE 4
1	$\geq 2.5\%$ REDUCTION IN TOTAL UA ⁵	1%
2	$\geq 5\%$ REDUCTION IN TOTAL UA ⁵	2%
3	$> 7.5\%$ REDUCTION IN TOTAL UA ⁵	2%
4	0.22 U-FACTOR WINDOWS ⁵	3%
5	HIGH PERFORMANCE COOLING SYSTEM (GREATER THAN OR EQUAL TO 18 SEER AND 14 EER AIR CONDITIONER) ²	3%
6	HIGH PERFORMANCE COOLING SYSTEM (GREATER THAN OR EQUAL TO 16 SEER AND 12 EER AIR CONDITIONER) ²	3%
7	HIGH PERFORMANCE GAS FURNACE (GREATER THAN OR EQUAL TO 96 AFUE NATURAL GAS FURNACE) ²	5%
8	HIGH PERFORMANCE GAS FURNACE (GREATER THAN OR EQUAL TO 92 AFUE NATURAL GAS FURNACE) ²	4%
9	HIGH PERFORMANCE HEAT PUMP SYSTEM (GREATER THAN OR EQUAL TO 10 HSPF/18 SEER AIR SOURCE HEAT PUMP.) ²	6%

10	HIGH PERFORMANCE HEAT PUMP SYSTEM (GREATER THAN OR EQUAL TO 9 HSPF/16 SEER AIR SOURCE HEAT PUMP.) ²	5%
11	GROUND SOURCE HEAT PUMP (GREATER THAN OR EQUAL TO 3.5 COP GROUND SOURCE HEAT PUMP.) ²	6%
12	FOSSIL FUEL SERVICE WATER HEATING SYSTEM (GREATER THAN OR EQUAL TO 82 EF FOSSIL FUEL SERVICE WATER-HEATING SYSTEM.)	3%
13	HIGH PERFORMANCE HEAT PUMP WATER HEATING SYSTEM OPTION (GREATER THAN OR EQUAL TO 2.9 UEF ELECTRIC SERVICE WATER-HEATING SYSTEM.)	8%
14	HIGH PERFORMANCE HEAT PUMP WATER HEATING SYSTEM. (GREATER THAN OR EQUAL TO 3.2 UEF ELECTRIC SERVICE WATER-HEATING SYSTEM.)	8%
15	SOLAR HOT WATER HEATING SYSTEM (GREATER THAN OR EQUAL TO 0.4 SOLAR FRACTION SOLAR WATER-HEATING SYSTEM.)	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%
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%
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%
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%
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%
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%
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%
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	7%

	PROGRAM REQUIREMENTS, PRODUCT SPECIFICATION FOR CLOTHES WASHERS, VERSION 8.1 (02/05/2018)	
24	RENEWABLE ENERGY MEASURE. ⁴	11%
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.”		

(31) In section M1307.5, strike “Chapters 14, 15, 19, 20, and 34 through 43 of this Code” and substitute “the National Electrical Code, [[2017]] 2020 edition”.

(32) STRIKE SECTION G2417.4.1 IN ITS ENTIRETY AND SUBSTITUTE:

“**G2417.4.1 (406.4.1) TEST PRESSURE.** THE TEST PRESSURE TO BE USED SHALL BE 20 PSIG (138 KPA GAUGE). A TAG SHALL BE AFFIXED TO THE GAUGE LISTING THE TIME AND DATE THE TEST WAS STARTED.”

(33) AFTER SECTION P2602.2, INSERT:

“**P2602.3 NEW DWELLING.** EVERY NEW DWELLING UTILIZING A PRIVATE WELL FOR WATER SUPPLY SHALL INSTALL A THREE-VALVE BYPASS FOR FUTURE WATER CONDITIONER CONNECTIONS AND A STANDPIPE WITH A MINIMUM 1½ INCH TRAP FOR FUTURE WATER CONDITIONER DISCHARGE.”

(39) STRIKE SECTIONS P2904.1 THROUGH P2904.8.2 IN THEIR ENTIRETY AND SUBSTITUTE:

“**P2904.1 DWELLING UNIT FIRE SPRINKLER SYSTEMS.** THE DESIGN AND INSTALLATION OF RESIDENTIAL AUTOMATIC SPRINKLER SYSTEM SHALL BE IN ACCORDANCE WITH NFPA 13D.”

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.”

(5) IN SECTION R402.2.1, AFTER “R402.1.3”, INSERT “OR SECTION R402.1.3.1”.

(6) IN SECTION R402.2.2, AFTER “R402.1.3”, INSERT “OR SECTION R402.1.3.1”.

(7) AFTER SECTION R408.2.5, INSERT:

“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%.

TABLE R408.3 ADDITIONAL ENERGY FEATURES ¹

	ENERGY FEATURE	PERCENTAGE INCREASE FOR CLIMATE ZONE 4
1	≥ 2.5% REDUCTION IN TOTAL UA ⁵	1%
2	≥ 5% REDUCTION IN TOTAL UA ⁵	2%
3	> 7.5% REDUCTION IN TOTAL UA ⁵	2%
4	0.22 U-FACTOR WINDOWS ⁵	3%
5	HIGH PERFORMANCE COOLING SYSTEM (GREATER THAN OR EQUAL TO 18 SEER AND 14 EER AIR CONDITIONER) ²	3%
6	HIGH PERFORMANCE COOLING SYSTEM (GREATER THAN OR EQUAL TO 16 SEER AND 12 EER AIR CONDITIONER) ²	3%
7	HIGH PERFORMANCE GAS FURNACE (GREATER THAN OR EQUAL TO 96 AFUE NATURAL GAS FURNACE) ²	5%
8	HIGH PERFORMANCE GAS FURNACE (GREATER THAN OR EQUAL TO 92 AFUE NATURAL GAS FURNACE) ²	4%
9	HIGH PERFORMANCE HEAT PUMP SYSTEM (GREATER THAN OR EQUAL TO 10 HSPF/18 SEER AIR SOURCE HEAT PUMP.) ²	6%
10	HIGH PERFORMANCE HEAT PUMP SYSTEM (GREATER THAN OR EQUAL TO 9 HSPF/16 SEER AIR SOURCE HEAT PUMP.) ²	5%
11	GROUND SOURCE HEAT PUMP (GREATER THAN OR EQUAL TO 3.5 COP GROUND SOURCE HEAT PUMP.) ²	6%
12	FOSSIL FUEL SERVICE WATER HEATING SYSTEM (GREATER THAN OR EQUAL TO 82 EF FOSSIL FUEL SERVICE WATER-HEATING SYSTEM.)	3%
13	HIGH PERFORMANCE HEAT PUMP WATER HEATING SYSTEM OPTION (GREATER THAN OR EQUAL TO 2.9 UEF ELECTRIC SERVICE WATER-HEATING SYSTEM.)	8%

14	HIGH PERFORMANCE HEAT PUMP WATER HEATING SYSTEM. (GREATER THAN OR EQUAL TO 3.2 UEF ELECTRIC SERVICE WATER-HEATING SYSTEM.)	8%
15	SOLAR HOT WATER HEATING SYSTEM (GREATER THAN OR EQUAL TO 0.4 SOLAR FRACTION SOLAR WATER-HEATING SYSTEM.)	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%
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%
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%
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%
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%
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%
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%
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%
24	RENEWABLE ENERGY MEASURE. ⁴	11%
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.”

INTERNATIONAL EXISTING BUILDING CODE AMENDMENTS

The provisions of the International Existing Building Code, [[2018]] 2021 edition, are amended, deleted, or corrected as follows, and the following provisions shall supersede the part of the text of the International Existing Building Code, [[2018]] 2021 edition, as indicated:

NATIONAL ELECTRICAL CODE AMENDMENTS

The provisions of the National Electrical Code, [[2017]] 2020 edition, are amended, deleted, or corrected as follows and the following provisions shall supersede the part of the text of the National Electrical Code, [[2017]] 2020 edition, as indicated:

(1) [[Strike Article 90 in its entirety and substitute]] CREATE ARTICLE 80 AND INSERT “Chapter 1 – Construction Code Administrative Provisions” OF THE CONSTRUCTION CODE.

(3) STRIKE SECTION 210.52(C)(2) IN ITS ENTIRETY AND SUBSTITUTE:

“**210.52(C)(2) ISLAND AND PENINSULAR COUNTERTOPS AND WORK SURFACES.** RECEPTACLE OUTLETS, IF INSTALLED TO SERVE AN ISLAND OR PENINSULAR COUNTERTOP OR WORK SURFACE, SHALL BE INSTALLED IN ACCORDANCE WITH 210.52(C)(3). IF A RECEPTACLE OUTLET IS NOT PROVIDED TO SERVE AN ISLAND OR PENINSULAR COUNTERTOP OR WORK SURFACE, PROVISIONS SHALL BE PROVIDED AT THE ISLAND OR PENINSULA FOR FUTURE ADDITION OF A RECEPTACLE OUTLET TO SERVE THE ISLAND OR PENINSULAR COUNTERTOP OR WORK SURFACE.”

(4) STRIKE SECTION 210.52(C)(3) IN ITS ENTIRETY AND SUBSTITUTE:

“**210.52(C)(3) RECEPTACLE OUTLET LOCATION.** RECEPTACLE OUTLETS SHALL BE LOCATED IN ONE OR MORE OF THE FOLLOWING:

(1) ON OR ABOVE, BUT NOT MORE THAN 500 MM (20 IN.) ABOVE, A COUNTERTOP OR WORK SURFACE;

(2) IN A COUNTERTOP USING RECEPTACLE OUTLET ASSEMBLIES LISTED FOR USE IN COUNTERTOPS; OR

(3) IN A WORK SURFACE USING RECEPTACLE OUTLET ASSEMBLIES LISTED FOR USE IN WORK SURFACES OR LISTED FOR USE IN COUNTERTOPS.

RECEPTACLE OUTLETS RENDERED NOT READILY ACCESSIBLE BY APPLIANCES FASTENED IN PLACE, APPLIANCE GARAGES, SINKS, OR RANGETOPS AS COVERED IN SECTION 210.52(C)(1), EXCEPTION NO. 1, OR APPLIANCES OCCUPYING ASSIGNED SPACES SHALL NOT BE CONSIDERED AS THESE REQUIRED OUTLETS.”

(5) AFTER SECTION 225.40, INSERT:

“225.41 EMERGENCY DISCONNECTS. FOR ONE- AND TWO-FAMILY DWELLING UNITS, AN EMERGENCY DISCONNECTING MEANS SHALL BE INSTALLED.

225.41(A) GENERAL.

225.41(A)(1) LOCATION. THE DISCONNECTING MEANS SHALL BE INSTALLED IN A READILY ACCESSIBLE OUTDOOR LOCATION ON OR WITHIN SIGHT OF THE DWELLING UNIT.

225.41(A)(2) RATING. THE DISCONNECTING MEANS SHALL HAVE A SHORT-CIRCUIT CURRENT RATING EQUAL TO OR GREATER THAN THE AVAILABLE FAULT CURRENT.

225.41(A)(3) GROUPING. IF MORE THAN ONE DISCONNECTING MEANS IS PROVIDED, THEY SHALL BE GROUPED.

225.41(B) IDENTIFICATION OF OTHER ISOLATION DISCONNECTS. WHERE EQUIPMENT FOR ISOLATION OF OTHER ENERGY SOURCE SYSTEMS IS NOT LOCATED ADJACENT TO THE EMERGENCY DISCONNECT REQUIRED BY THIS SECTION, A PLAQUE OR DIRECTORY IDENTIFYING THE LOCATION OF ALL EQUIPMENT FOR ISOLATION OF OTHER ENERGY SOURCES SHALL BE LOCATED ADJACENT TO THE DISCONNECTING MEANS REQUIRED BY THIS SECTION.

225.41(C) MARKING. THE DISCONNECTING MEANS SHALL BE MARKED AS EMERGENCY DISCONNECT. MARKINGS SHALL COMPLY WITH SECTION 110.21(B) AND ALL OF THE FOLLOWING:

(1) THE MARKING OR LABELS SHALL BE LOCATED ON THE OUTSIDE FRONT OF THE DISCONNECT ENCLOSURE WITH RED BACKGROUND AND WHITE TEXT.

(2) THE LETTERS SHALL BE LEAST 13 MM (1/2 INCH) HIGH.”

(6) AFTER SECTION 230.71(B)(4), INSERT:

“EXCEPTION TO (2), (3), (4), (5), AND (6): EXISTING SERVICE EQUIPMENT, INSTALLED IN COMPLIANCE WITH PREVIOUS EDITIONS OF THIS CODE THAT PERMITTED MULTIPLE SERVICE DISCONNECTING MEANS IN A SINGLE ENCLOSURE, SECTION, OR COMPARTMENT, SHALL BE PERMITTED TO CONTAIN A MAXIMUM OF SIX SERVICE DISCONNECTING MEANS.”

(7) IN SECTION 250.50, BEFORE “ALL GROUNDING ELECTRODES”, INSERT “A GROUNDING ELECTRODE AS DESCRIBED IN 250.52(A)(3) SHALL BE INSTALLED. ANY ALTERNATE METHODS SHALL BE APPROVED BY THE CODE OFFICIAL.”

(8) IN SECTION 310.3(A), STRIKE “12 AWG ALUMINUM OR COPPER-CLAD ALUMINUM” AND SUBSTITUTE “8 AWG ALUMINUM OR 12 AWG COPPER-CLAD ALUMINUM”.

(9) IN SECTION 408.43, AFTER “PANELBOARDS”, INSERT “SHALL BE INSTALLED SO THAT ALL AVAILABLE CIRCUIT BREAKER POLE SPACES ARE LOCATED IN ACCORDANCE WITH SECTION 240.24(A) AND”.

(10) AFTER SECTION 422.13, INSERT:

“422.14 SUMP PUMPS AND SEWER EJECTOR PUMPS. SUMP PUMPS SHALL BE SUPPLIED BY AN INDIVIDUAL BRANCH CIRCUIT. SEWAGE EJECTOR PUMPS SHALL BE SUPPLIED BY AN INDIVIDUAL BRANCH CIRCUIT.”

(11) IN SECTION 424.11, AFTER “SUPPLY CONDUCTORS.”, INSERT “ALL CONDUCTORS ENTERING EQUIPMENT COVERED UNDER THE SCOPE OF THIS ARTICLE SHALL BE COPPER.”

(12) IN SECTION 440.31, AFTER “EXCEPTION NO. 1.”, INSERT:

“ALL CONDUCTORS ENTERING EQUIPMENT COVERED UNDER THE SCOPE OF THIS ARTICLE SHALL BE COPPER.”

(13) AFTER SECTION 702.2, INSERT:

“702.3 COUNTY OWNED AND MAINTAINED SEWAGE EJECTOR OR GRINDER PUMPS. A COUNTY OWNED AND MAINTAINED SEWAGE EJECTOR OR GRINDER PUMP SHALL BE PERMITTED TO BE CONNECTED TO AN OPTIONAL STANDBY SYSTEM PROVIDED ALL OF THE FOLLOWING CONDITIONS ARE MET:

(1) 6500 WATTS SHALL BE INCLUDED FOR PUMP LOAD CALCULATIONS IN ACCORDANCE WITH ARTICLE 220.

(2) THE INSTALLATION IS IN ACCORDANCE WITH ANY APPLICABLE DESIGN CRITERIA REQUIRED BY THE COUNTY.”

INTERNATIONAL FUEL GAS CODE AMENDMENTS

The provisions of the [[2018]] 2021 International Fuel Gas Code are amended, deleted, or corrected as follows and the following provisions shall supersede the part of the text of the [[2018]] 2021 International Fuel Gas Code as indicated:

(3) STRIKE SECTION 406.4.1 IN ITS ENTIRETY AND SUBSTITUTE:

“406.4.1 TEST PRESSURE. THE TEST PRESSURE TO BE USED SHALL BE 20 PSIG (138 KPA GAUGE). A TAG SHALL BE AFFIXED TO THE GAUGE LISTING THE TIME AND DATE THE TEST WAS STARTED.”

INTERNATIONAL MECHANICAL CODE AMENDMENTS

The provisions of the [[2018]] 2021 International Mechanical Code are amended, deleted, or corrected as follows and the following provisions shall supersede the part of the text of the [[2018]] 2021 International Mechanical Code as indicated:

(11) After section 312.1, insert:

“312.2 Outdoor design temperature. For the purposes of this Code the outdoor design temperatures shall be based upon 17 degrees F for heating and [[89]] 91 degrees F for cooling.”

(12) THE DOCUMENT ENTITLED “REQUIRED CHANGES TO THE 2021 INTERNATIONAL MECHANICAL CODE TO COMPLY WITH THE A2L REFRIGERANT RELATED CODE PROVISIONS OF THE 2024 I-CODES”, PUBLISHED BY THE INTERNATIONAL CODE COUNCIL AND DATED MARCH 1, 2023, AND AS AMENDED FROM TIME TO TIME, IS HEREBY INCORPORATED BY REFERENCE.

INTERNATIONAL PLUMBING CODE AMENDMENTS

The provisions of the [[2018]] 2021 International Plumbing Code are amended, deleted, or corrected as follows and the following provisions shall supersede the part of the text of the [[2018]] 2021 International Plumbing Code as indicated:

(3) IN SECTION 202, IN THE DEFINITION OF “WATER DISPENSER”, AFTER “PREMISES.”, INSERT:

“THIS DEFINITION INCLUDES A FREESTANDING APPARATUS FOR THE SAME PURPOSE THAT IS NOT CONNECTED TO THE POTABLE WATER DISTRIBUTION SYSTEM AND THAT IS SUPPLIED WITH POTABLE WATER FROM A CONTAINER, BOTTLE, OR RESERVOIR.”

(6) After section 303.1, insert:

“[[303.2]] 303.1.1 **Piping system identification.** In commercial buildings or structures with multiple piping systems, all wastewater, stormwater, and grease lines shall be identified using stenciling or commercially available pipe labels. The labels shall indicate the pipe contents and the direction of flow. The interval of identification markings shall not exceed 25 feet.”

(11) After section [[403.5]] 403.6, insert:

“[[403.6]] 403.7 **Public swimming pools and spas.** Public swimming pools and spas shall conform to this Code and the requirements set forth in COMAR, 10.17.01 and Article 11, Title 14, of the County Code.”

(12) In section 410.4, delete “THREE OR MORE” AND “not more than 50 percent of”.

(15) AFTER SECTION 603.2.1, INSERT:

“**603.3 PROTECTION OF PUBLIC WATER SUPPLY.** PUBLIC WATER SUPPLY SHALL BE PROTECTED BY AN APPROVED BACKFLOW PREVENTION ASSEMBLY. SUCH ASSEMBLY SHALL BE LOCATED AFTER THE WATER METER AND PRIOR TO THE WATER DISTRIBUTION PIPE.”

(21) In section [[903.1]] 903.1.1, insert “6” in the space indicated and strike “(mm)”.

(22) After section 1003.3.8, insert:

“**1003.3.9 Location.** All grease interceptors shall be located outside the building served and shall be accessible for servicing UNLESS AN ALTERNATE LOCATION IS APPROVED BY THE CODE OFFICIAL.”

INTERNATIONAL SWIMMING POOL AND SPA CODE AMENDMENTS

The provisions of the [[2018]] 2021 International SWIMMING Pool and Spa Code are amended, deleted, or corrected as follows and the following provisions shall supersede the part of the text of the [[2018]] 2021 International SWIMMING Pool and Spa Code as indicated:

(3) IN SECTION 305.2, IN THE LAST SENTENCE, AFTER “305.7.”, INSERT “BARRIERS SHALL BE PERMANENT AND NONREMOVABLE.”

(4) IN SECTION 305.2.1, IN THE FIRST SENTENCE, AFTER “(1219 MM)”, INSERT “FOR RESIDENTIAL POOLS, AND 72 INCHES (1828 MM) FOR PUBLIC POOLS”.

(5) STRIKE SECTION 305.2.4 IN ITS ENTIRETY.

(6) STRIKE SECTION 305.2.4.1 IN ITS ENTIRETY.

SECTION 5. *And be it further enacted*, That this Ordinance shall take effect 45 days from the date it becomes law.

READ AND PASSED this 6th day of May, 2024

By Order:



Kaley Schultze
Administrative Officer

PRESENTED to the County Executive for his approval this 7th day of May, 2024



Kaley Schultze
Administrative Officer

APPROVED AND ENACTED this 9th day of May, 2024



Steuart Pittman
County Executive

EFFECTIVE DATE: June 23, 2024

Bill No. 25-24

Page No. 24

**I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF
BILL NO. 25-24 THE ORIGINAL OF WHICH IS RETAINED IN THE FILES
OF THE COUNTY COUNCIL.**

A handwritten signature in black ink, appearing to be 'K Schultze', with a long horizontal line extending to the right.

**Kaley Schultze
Administrative Officer**