The Plumbing and Gasfitting Code
Baltimore County

Baltimore County Council Bill 94-23

Effective July 1, 2024

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The Plumbing and Gasfitting Code
Baltimore County, Maryland
Adopting Ordinance

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COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2023, Legislative Day No. 21

Bill No. 94-23

Mr. Julian E. Jones Jr., Chairman
By Request of County Executive

By the County Council, November 20, 2023

A BILL
ENTITLED

AN ACT concerning

The Plumbing and Gasfitting Code of Baltimore County

FOR the purpose of adopting with certain deletions, replacements, amendments, and additions, the 2021 International Plumbing Code (IPC), the 2021 International Fuel Gas Code (IGGC); and the Liquefied Petroleum Gas Code, NFPA 58, 2020 Edition; all as the "Plumbing and Gasfitting Code of Baltimore County".

BY Repealing

The Plumbing and Gasfitting Code of Baltimore County as adopted by Bill No. 41-15

BY Adopting

The International Plumbing Code, IPC, 2021 Edition,
The International Fuel Gas Code, IFGC, 2021 Edition, and
The Liquefied Petroleum Gas Code, NFPA 58, 2020 Edition.

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter stricken from existing law.
~~Strike out~~ indicates matter stricken from bill.
Underlining indicates amendments to bill.

SECTION 1. BE IT ENACTED BY THE COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND, that the Plumbing and Gasfitting Code of Baltimore County adopted by Bill No. 41-15 be and the same is hereby repealed.

SECTION 2. AND BE IT FURTHER ENACTED that the International Plumbing Code 2021 Edition, the International Fuel Gas Code, 2021 Edition, and the Liquefied Petroleum Gas Code, NFPA 58, 2020 Edition be and they are hereby adopted subject to the modifications set forth herein.

SECTION 3. AND BE IT FURTHER ENACTED that the Bill No. 94-23 may be referred to as "The Plumbing and Gasfitting Code of Baltimore County".

SECTION 4. AND BE IT FURTHER ENACTED that the deletions, replacements, amendments, and additions set forth in the following PARTS 100, 200, 300, and 400 are hereby adopted as "The Plumbing and Gasfitting Code of Baltimore County".

PART 100—COMMON PROVISIONS

PART 101 INTRODUCTION

THE REQUIREMENTS OF THIS PART 100 ARE THE COMMON PROVISIONS FOR ALL OF THE CODES ADOPTED IN THIS CODE, THE PLUMBING AND GASFITTING CODE OF BALTIMORE COUNTY.

PART 102 – ADOPTED CODES

THE FOLLOWING ARE HEREBY ADOPTED INTO THIS CODE, ALONG WITH ANY DELETIONS, REPLACEMENTS, AMENDMENTS, AND ADDITIONS TO THOSE CODES, AS SET FORTH IN THEIR ADOPTIONS:

1. INTERNATIONAL PLUMBING CODE (IPC) – 2021, BY THE INTERNATIONAL CODE COUNCIL, INC.
2. INTERNATIONAL FUEL GAS CODE (IFGC) – 2021, BY THE INTERNATIONAL CODE COUNCIL, INC.
3. LIQUEFIED PETROLEUM GAS CODE (NFPA 58) – 2020 EDITION.

PART 103 – CODE OFFICIALS

PART 103.1 – ADOPTING AGENCY

THE ADOPTING AGENCY OF THIS CODE IS THE COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND.

PART 103.2—AUTHORITY HAVING JURISDICTION (AHJ)

THE AHJ FOR THIS CODE IS THE DIRECTOR OF THE BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS OR THE DIRECTOR'S DESIGNEE.

PART 104—ADMINISTRATION

PART 104.1 – TITLE

THE REGULATIONS CONTAINED IN THE CODES ADOPTED HEREIN SHALL BE KNOWN AS THE "PLUMBING AND GASFITTING CODE OF BALTIMORE COUNTY" AND MAYBE CITED AS SUCH, AND HEREINAFTER REFERRED TO AS "THIS CODE"

PART 104.2 – SCOPE

THE PROVISIONS OF THIS CODE SHALL APPLY TO EVERY INSTALLATION, INCLUDING THE DESIGN, ERECTION, INSTALLATION, ALTERATION, RELOCATION, REPAIR, REPLACEMENT, ADDITION TO, USE, OR MAINTENANCE OF THE PLUMBING AND FUEL GAS SYSTEMS AS DEFINED WITHIN THIS CODE.

PART 104.2.1—RESIDENTIAL OCCUPANCIES

THE SCOPE OF THIS CODE AND ITS ADOPTED CODES SHALL INCLUDE DETACHED ONE– AND TWO-FAMILY DWELLINGS AND MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) NOT MORE THAN THREE STORIES HIGH WITH SEPARATE MEANS OF EGRESS AND THEIR ACCESSORY STRUCTURES. THE PLUMBING AND FUEL GAS REQUIREMENTS OF THE INTERNATIONAL RESIDENTIAL CODE (IRC) IN ITS CHAPTERS 20, 24, 25, 26, 27, 28, 29, 30, 31, 32, AND 33 SHALL NOT BE USED FOR RESIDENTIAL PLUMBING AND FUEL GAS SYSTEMS IN BALTIMORE COUNTY. THIS PLUMBING AND GASFITTING CODE OF BALTIMORE COUNTY SHALL APPLY TO THE RESIDENTIAL OCCUPANCIES THAT ARE IN THE SCOPE OF THE IRC.

PART 104.3 – PURPOSE

THE CODE ESTABLISHES THE MINIMUM REQUIREMENTS AND STANDARDS PERTAINING TO THE DESIGN, INSTALLATION, USE, AND MAINTENANCE OF THE PLUMBING AND FUEL GAS SYSTEMS AS DEFINED WITHIN THIS CODE.

PART 104.3.1—CONFLICTS

ANY CONFLICTS BETWEEN THIS CODE AND AN ADOPTED CODE, A REFERENCED CODE, OR A REFERENCED STANDARD SHALL BE RESOLVED IN ACCORDANCE WITH THIS CODE, SUBJECT TO THE APPROVAL OF THE AHJ FOR THIS CODE.

PART 104.4 – APPLICABILITY

PART 104.4.1 – ADDITIONS, ALTERATIONS, AND REPAIRS

ADDITIONS, ALTERATIONS, AND REPAIRS IN COMPLIANCE WITH THIS CODE MAY BE MADE TO ANY EXISTING SYSTEM WITHOUT REQUIRING THE EXISTING INSTALLATION TO COMPLY WITH ALL OF THE REQUIREMENTS OF THIS CODE. ADDITIONS, ALTERATIONS, AND REPAIRS SHALL NOT CAUSE AN EXISTING SYSTEM TO BECOME UNSAFE, INSANITARY, OR OVERLOADED.

PART 104.4.2 EXISTING INSTALLATIONS

SYSTEMS THAT WERE LAWFULLY INSTALLED PRIOR TO THE ADOPTION OF THIS CODE MAY CONTINUE THEIR USE, MAINTENANCE, AND REPAIR PROVIDED THAT THE OPERATION, MAINTENANCE, AND REPAIR IS IN ACCORDANCE WITH THE ORIGINAL DESIGN AND INSTALLATION, AND NO HAZARD HAS BEEN CREATED TO LIFE, HEALTH, OR PROPERTY BY THE SYSTEM.

PART 104.4.3 EXISTING USE

THE LAWFUL USE OF ANY EXISTING SYSTEM, INCLUDING ITS PIPING, APPLIANCES, FIXTURES, FITTINGS, AND APPURTENANCES MAY HAVE ITS USE CONTINUED, PROVIDED THAT NO HAZARDS TO LIFE, HEALTH, OR PROPERTY HAVE BEEN CREATED BY ITS CONTINUED USE.

PART 104.4.4 MAINTENANCE AND REPAIRS

EXISTING SYSTEMS, INCLUDING MATERIALS, FIXTURES, FITTINGS, APPURTENANCES, CONTROLS, AND SAFETY DEVICES, SHALL BE MAINTAINED IN A SAFE AND OPERABLE CONDITION. REPAIRS SHALL BE MADE IN THE SAME MANNER AND ARRANGEMENT AS THE ORIGINAL INSTALLATION. THE OWNER, OR DESIGNATED AGENT, SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIRS.

PART 104.4.5 CHANGE OF BUILDING USE

SYSTEMS IN ANY BUILDING OR STRUCTURE THAT IS PROPOSED FOR A CHANGE IN OCCUPANCY SHALL COMPLY WITH ALL REQUIREMENTS OF THIS CODE FOR THE NEW USE OR OCCUPANCY.

PART 104.4.6 MOVED BUILDINGS OR STRUCTURES

SYSTEMS IN ANY BUILDING OR STRUCTURE TO BE MOVED INTO OR RELOCATED WITHIN THIS JURISDICTION SHALL COMPLY WITH THE PROVISIONS OF THIS CODE FOR NEW CONSTRUCTION.

104.4.7 SPECIAL HISTORIC BUILDINGS

THE PROVISIONS OF THIS CODE RELATED TO ANY ADDITIONS, ALTERATIONS, REPAIR, REPLACEMENT, OR RESTORATION OF THOSE STRUCTURES DESIGNATED AS HISTORIC BUILDINGS SHALL NOT BE MANDATORY IF THE AHJ DETERMINES THAT THE LACK OF CONFORMANCE IS NOT A HAZARD TO LIFE, HEALTH, OR PROPERTY AND NOT REQUIRING CONFORMANCE IS IN THE PUBLIC INTEREST.

104.4.8 APPENDICES AND ANNEXES

THE PROVISIONS IN THE APPENDICES AND ANNEXES IN THE CODES THAT ARE ADOPTED IN PART 102 OF THIS CODE ARE FOR INFORMATIONAL PURPOSES

ONLY. THOSE APPENDICES AND ANNEXES ARE NOT REQUIREMENTS OF THIS CODE UNLESS THEY ARE SPECIFICALLY REFERENCED IN PARTS 200 OR 300 HEREIN.

104.5 APPROVALS

104.5.1 ALTERNATIVE MATERIAL OR METHOD OF INSTALLATION

THE PROVISIONS CITED IN THIS CODE ARE NOT INTENDED TO PREVENT THE USE OF ANY ALTERNATIVE OR METHOD OF INSTALLATION WHEN IT IS DETERMINED TO MEET THE INTENT OF THIS CODE AND IS APPROVED BY THE AHJ.

104.5.2 APPROVAL OF ALTERNATIVE MATERIAL OR METHOD OF INSTALLATION

THE AHJ MAY APPROVE ANY SUCH ALTERNATIVE MATERIAL OR METHOD OF INSTALLATION NOT EXPRESSLY CONFORMING TO THE REQUIREMENTS OF THIS CODE, PROVIDED THAT IT FINDS THE PROPOSED MATERIAL OR METHOD OF INSTALLATION IS AT LEAST THE EQUIVALENT OF THAT REQUIRED BY THIS CODE.

104.5.3 TESTS REQUIRED

THE AHJ SHALL REQUIRE SUFFICIENT EVIDENCE TO SUBSTANTIATE ANY CLAIMS MADE REGARDING THE EQUIVALENCY OF ANY PROPOSED ALTERNATIVE MATERIAL OR METHOD OF INSTALLATION. WHEN THE AHJ DETERMINES THAT THERE IS INSUFFICIENT EVIDENCE TO SUBSTANTIATE THE CLAIMS, IT MAY REQUIRE THAT THE TESTS BE MADE BY A TESTING AGENCY IT APPROVES TO SUBSTANTIATE THE CLAIMS AT THE EXPENSE OF THE APPLICANT.

104.5.4 TEST PROCEDURE

THE AHJ SHALL REQUIRE THAT ALL TESTS BE MADE IN ACCORDANCE WITH APPROVED STANDARDS; BUT, IN THE ABSENCE OF SUCH STANDARDS, THE AHJ SHALL SPECIFY THE TEST PROCEDURE.

104.5.5 RETESTING

THE AHJ MAY REQUIRE ANY ALTERNATIVE MATERIAL OR METHOD OF INSTALLATION TO BE RETESTED IF, AT ANY TIME, THERE IS REASON TO BELIEVE THAT THE MATERIAL OR METHOD OF INSTALLATION NO LONGER CONFORMS TO THE REQUIREMENTS ON WHICH THE ORIGINAL APPROVAL WAS BASED.

104.6 ORGANIZATION AND ENFORCEMENT

104.6.1 AUTHORITY HAVING JURISDICTION (AHJ)

THE AHJ TO ADMINISTER AND ENFORCE THE PROVISIONS OF THIS CODE IS THE DIRECTOR OF THE DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS, OR THE DIRECTOR'S DESIGNEE, AS INDICATED IN PART 103.2.

104.6.2 DESIGNEES

THE AHJ MAY APPOINT SUCH ASSISTANTS, DEPUTIES, INSPECTORS, OR OTHER DESIGNATED EMPLOYEES TO CARRY OUT THE ADMINISTRATION AND ENFORCEMENT OF THIS CODE.

104.6.3 RIGHT OF ENTRY

WHEN INSPECTIONS ARE REQUIRED TO ENFORCE THE PROVISIONS OF THIS CODE, OR THERE IS REASONABLE CAUSE TO BELIEVE THERE EXISTS IN ANY BUILDING, STRUCTURE, OR PREMISES ANY CONDITION OR VIOLATION OF THIS CODE CAUSING THE BUILDING, STRUCTURE, OR PREMISES TO BE UNSAFE, DANGEROUS, OR HAZARDOUS, THE AHJ OR DESIGNEE MAY ENTER SUCH

BUILDING, STRUCTURE, OR PREMISES AT REASONABLE TIMES TO PERFORM THEIR ADMINISTRATION OF THIS CODE. WHEN THE BUILDING, STRUCTURE, OR PREMISES IS OCCUPIED, PROPER CREDENTIALS SHALL BE PRESENTED TO THE OCCUPANT WHEN ENTRY IS REQUIRED. IN THE EVENT THE BUILDING, STRUCTURE, OR PREMISES IS UNOCCUPIED AND ENTRY IS REQUIRED, A REASONABLE EFFORT SHALL BE MADE TO LOCATE THE OWNER OR AGENT IN CHARGE OF SUCH BUILDING, STRUCTURE, OR PREMISES. IN THE EVENT THE OCCUPANT OR OWNER OF SUCH BUILDING, STRUCTURE, OR PREMISES REFUSES ENTRY, THE AHJ SHALL HAVE RECOURSE TO THE REMEDIES PROVIDED BY LAW TO GAIN ENTRY.

104.6.4 STOP WORK ORDER

UPON NOTICE OF THE AHJ, WORK BEING DONE ON ANY BUILDING, STRUCTURE, OR PREMISES CONTRARY TO THE PROVISIONS OF THIS CODE, OR IN AN UNSAFE AND DANGEROUS MANNER, SHALL CEASE IMMEDIATELY. THE STOP WORK ORDER SHALL BE IN WRITING, SERVED ON THE OWNER OF THE PROPERTY OR AGENT, OR TO THE PERSON DOING SUCH WORK. IT SHALL STATE THE CONDITIONS UNDER WHICH THE AHJ MAY GRANT AUTHORIZATION TO PROCEED WITH THE WORK.

104.6.5 AUTHORITY TO CONDEMN

WHEN THE AHJ DETERMINES THAT ANY PLUMBING OR GAS SYSTEM OR PORTION THEREOF THAT IS REGULATED BY THIS CODE HAS BECOME UNSANITARY OR HAZARDOUS TO LIFE, HEALTH, OR PROPERTY, THE AHJ SHALL ORDER IN WRITING THAT SUCH SYSTEM OR PORTION THEREOF BE REPAIRED, REPLACED,

OR REMOVED SO AS TO BE IN CODE COMPLIANCE. THE WRITTEN ORDER SHALL CONTAIN A REASONABLE TIME LIMIT FOR THE WORK TO BE BROUGHT INTO CODE COMPLIANCE, AND NO PERSON SHALL USE THE CONDEMNED SYSTEM UNTIL SUCH WORK IS COMPLETE AND APPROVED BY THE AHJ.

104.6.6 AUTHORITY TO ABATE

ANY PLUMBING OR GAS SYSTEM OR PORTION THEREOF THAT IS FOUND TO BE UNSANITARY OR CONSTITUTES A HAZARD TO LIFE, HEALTH, OR PROPERTY IS HEREBY DECLARED TO BE A NUISANCE. WHERE A NUISANCE EXISTS, THE AHJ SHALL REQUIRE THE NUISANCE TO BE ABATED AND SHALL SEEK SUCH ABATEMENT IN THE MANNER PRESCRIBED BY LAW.

104.6.7 LIABILITY

THE AHJ OR ANY INDIVIDUAL DULY APPOINTED OR AUTHORIZED BY THE AHJ TO ENFORCE THIS CODE, ACTING IN GOOD FAITH WITHOUT MALICE, SHALL NOT THEREBY BE RENDERED PERSONALLY LIABLE FOR ANY DAMAGE THAT MAY OCCUR TO PERSONS OR PROPERTY AS A RESULT OF ANY ACT OR BY REASON OF ANY ACT OR OMISSION IN THE LAWFUL DISCHARGE OF DUTIES. SHOULD A SUIT BE BROUGHT AGAINST THE AHJ OR A DULY APPOINTED REPRESENTATIVE BECAUSE OF SUCH ACT OR OMISSION, THEY SHALL BE DEFENDED BY LEGAL COUNSEL PROVIDED BY THIS JURISDICTION UNTIL FINAL DIPOSITION OF THE PROCEEDINGS.

104.7 VIOLATIONS AND PENALTIES

104.7.1 VIOLATIONS

IT SHALL BE UNLAWFUL FOR ANY INDIVIDUAL, PARTNERSHIP, FIRM, OR CORPORATION TO, OR CAUSE TO, INSTALL, CONSTRUCT, ERECT, ALTER, REPAIR, IMPROVE, CONVERT, MOVE, OR MAINTAIN ANY PLUMBING OR GAS SYSTEM IN VIOLATION OF THIS CODE.

104.7.2 PENALTIES

ANY INDIVIDUAL, PARTNERSHIP, FIRM, OR CORPORATION WHO VIOLATES OR FAILS TO COMPLY WITH ANY OF THE REQUIREMENTS OF THIS OR ANY OTHER BALTIMORE COUNTY CODE SHALL BE DEEMED A VIOLATOR AND SUBJECT TO THE ENFORCEMENT PROCEDURES SET FORTH IN ARTICLE 3, TITLE 6, BALTIMORE COUNTY CODE, AND THE PENALTIES SET FORTH IN BALTIMORE COUNTY CODE § 21-15-109 AND PART 119 OF THE BALTIMORE COUNTY BUILDING CODE.

PART 104.8 PERMITS

PART 104.8.1 PERMITS REQUIRED

IT SHALL BE UNLAWFUL FOR ANY INDIVIDUAL, PARTNERSHIP, FIRM, OR CORPORATION TO COMMENCE, OR CAUSE TO COMMENCE, ANY INSTALLATION, ALTERATION, REPAIR, REPLACEMENT, CONVERSION, OR ADDITION TO ANY PLUMBING OR GAS SYSTEM, OR PART THEREOF, REGULATED BY THIS CODE, EXCEPT AS PERMITTED IN SECTION 104.8.2 OF THIS CODE, WITHOUT FIRST OBTAINING A PERMIT FOR EACH SEPARATE BUILDING OR STRUCTURE ON FORMS PREPARED AND PROVIDED BY THE AHJ.

PART 104.8.2—PERMITS NOT REQUIRED FOR THE FOLLOWING

EXCEPTIONS FROM OBTAINING A PERMIT REQUIRED BY THIS CODE SHALL NOT BE CONSTRUED AS AUTHORIZATION TO PERMIT ANY WORK THAT IS IN VIOLATION OF THIS CODE.

PERMITS SHALL NOT BE REQUIRED FOR THE FOLLOWING WORK:

1. THE STOPPAGE OF LEAKS IN WATER, DRAIN, VENT, OR FUEL GAS PIPING. HOWEVER, SHOULD THE DEFECT NECESSITATE REMOVAL OR REPLACEMENT WITH NEW MATERIAL, IT SHALL CONSTITUTE NEW WORK AND A PERMIT SHALL BE OBTAINED AND INSPECTIONS MADE AS REQUIRED BY THIS CODE.
2. THE CLEARING OF STOPPAGES OR OBSTRUCTIONS TO FLOW.
3. THE REPAIRING OF LEAKS IN VALVES OR FIXTURES.
4. THE REMOVAL AND REINSTALLATION OF A WATER CLOSET FOR A CLEANOUT OPENING, PROVIDED THE REINSTALLATION DOES NOT REQUIRE REPLACEMENT OR REARRANGEMENT OF VALVES, PIPES, OR FIXTURES.
5. THE REPAIR OF FAUCETS AND REPLACEMENT OF WATER CLOSET PARTS.

PART 104.9 PROCESS FOR OBTAINING PERMITS

PART 104.9.1 APPLICATION

APPLICATIONS FOR A PERMIT SHALL BE MADE IN WRITING BY THE LICENSE HOLDER, OR THEIR AGENT, PROPOSING TO DO SUCH WORK COVERED BY THE PERMIT. THE APPLICANT SHALL FILE THE APPLICATION FOR THE PERMIT USING THE FORM PROVIDED BY THE AHJ.

PART 104.9.2 PLANS

TWO OR MORE SETS OF PLANS SHALL BE SUBMITTED WITH EACH PERMIT APPLICATION. IF REQUIRED BY THE AHJ, THE PLANS SHALL CONTAIN ALL OF THE ENGINEERING CALCULATIONS, DRAWINGS, DIAGRAMS, AND OTHER DATA REQUIRED FOR APPROVAL. THE AHJ MAY ALSO REQUIRE THAT THE PLANS, DRAWINGS, DIAGRAMS, AND CALCULATIONS BE DESIGNED BY AN ENGINEER WHO IS LICENSED BY THE STATE OF MARYLAND. THE AHJ MAY WAIVE THE SUBMISSION OF PLANS AND OTHER DOCUMENTATION, PROVIDED THAT IT IS DETERMINED THAT THE NATURE OF THE WORK COVERED BY THE PERMIT DOES NOT REQUIRE PLAN REVIEW TO OBTAIN CODE COMPLIANCE.

PART 104.9.3 SPECIFICATIONS

ALL SPECIFICATIONS THAT ARE REQUIRED TO BE SUBMITTED FOR A PERMIT SHALL BE COORDINATED WITH THE PROPOSED WORK AND SHALL CONFIRM THAT THE WORK WILL COMPLY WITH THE REQUIREMENTS OF THIS CODE.

PART 104.9.4 PERMIT ISSUANCE

IF, AFTER REVIEWING THE PLANS AND SPECIFICATIONS, THE AHJ FINDS THAT THEY ARE COMPLETE AND CONFORM TO THE REQUIREMENTS OF THIS CODE, THEY SHALL AUTHORIZE THE ISSUANCE OF A PERMIT UPON PAYMENT OF ALL FEES ASSOCIATED WITH THE PERMIT.

PART 104.9.5 APPROVED PLANS

WHEN THE AHJ ISSUES A PERMIT AND PLANS WERE REQUIRED, IT SHALL ENDORSE THE PLANS EITHER IN WRITING OR BY STAMPING THE PLANS "APPROVED BY BALTIMORE COUNTY". ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPROVED PLANS WITHOUT DEVIATION.

PART 104.9.6 PLANS RETENTION

ONE SET OF APPROVED PLANS SHALL BE RETURNED TO THE APPLICANT AND THAT SET OF APPROVED PLANS, OR A COPY OF THE APPROVED SET, SHALL BE KEPT ON THE JOB SITE AT ALL TIMES UNTIL FINAL APPROVAL OF THE INSTALLED WORK CONTAINED THEREIN. THE AHJ SHALL RETAIN ONE SET OF THE APPROVED PLANS UNTIL FINAL APPROVAL OF THE INSTALLED WORK CONTAINED THEREIN.

PART 104.9.7 PERMIT VALIDITY

THE ISSUANCE OF A PERMIT BY THE AHJ IS NOT AND SHALL NOT BE CONSTRUED TO BE AUTHORIZATION OR APPROVAL OF ANY VIOLATION OF THE REQUIREMENTS OF THIS CODE. ANY PRESUMPTION THAT A PERMIT IS AUTHORIZED TO VIOLATE OR CANCEL ANY PROVISIONS OF THIS CODE SHALL BE INVALID. THE ISSUANCE OF A PERMIT BASED ON SUBMITTED PLANS SHALL NOT PREVENT THE AHJ FROM REQUIRING THE CORRECTION OF ANY ERRORS IN THE PLANS OR FROM PREVENTING THE PROGRESS OF THE CONSTRUCTION WHEN IT IS IN VIOLATION OF ANY PROVISION OF THIS CODE.

PART 104.9.8 TIME LIMIT ON PERMITS

ALL PERMITS SHALL BE ISSUED TO EXPIRE ONE YEAR AFTER THE DATE SUCH PERMIT IS ISSUED, UNLESS THE TIME OF COMPLETION STATED IN THE APPLICATION CALLS FOR A LONGER OR SHORTER PERIOD THAN ONE YEAR, IN WHICH CASE THE TIME OF EXPIRATION ON THE PERMIT SHALL ALLOW A REASONABLE TIME TO COMPLETE THE WORK.

PART 104.9.9 SUSPENSION OR REVOCATION

AT ANY TIME, THE AHJ MAY SUSPEND OR REVOKE A PERMIT ISSUED IN ERROR, ISSUED ON THE BASIS OF INCORRECT INFORMATION SUBMITTED, OR ISSUED IN VIOLATION OF ANY PROVISION OF THIS CODE.

PART 104.9.10 PERMITS FOR PUBLIC UTILITY SUBSTATIONS

ALL PERMITS FOR A SUBSTATION ISSUED TO A PUBLIC SERVICE COMPANY, AS DEFINED BY TITLE 1 OF THE PUBLIC UTILITY COMPANIES ARTICLE OF THE ANNOTATED CODE OF MARYLAND, SHALL BE ISSUED TO EXPIRE FIVE YEARS AFTER THE DATE SUCH PERMIT IS ISSUED, PROVIDED THAT WITHIN ONE YEAR AFTER THE ISSUANCE OF THE PERMIT THE SITE IS FENCED AND LANDSCAPED AND A SIGN POSTED STATING THE PROPOSED USE OF THE COMPLETED PROJECT. HOWEVER, AS TO ANY PERMIT, THE AHJ IS HEREBY AUTHORIZED TO GRANT ANY EXTENSION OF TIME NOT IN EXCESS OF ONE YEAR IN WHICH TO COMPLETE THE WORK. IF THE WORK UNDER A PERMIT IS NOT COMPLETE BEFORE THE PERMIT EXPIRATION DATE OR ANY EXTENSION THEREOF GRANTED BY THE AHJ, THAT PERMIT BECOMES A NULLITY.

PART 104.10 FEES

PART 104.10.1 PERMIT FEE SCHEDULE

THE PERMIT FEES FOR ALL PLUMBING AND GASFITTING WORK SHALL BE IN ACCORDANCE WITH THE CURRENTLY EFFECTIVE FEE SCHEDULE ESTABLISHED BY THE COUNTY ADMINISTRATIVE OFFICER.

PART 104.10.2 PLAN REVIEW FEE

IF PLANS ARE REQUIRED TO BE SUBMITTED TO BE REVIEWED PRIOR TO ISSUING A PERMIT, THE AHJ MAY CHARGE A PLAN REVIEW FEE IN ACCORDANCE WITH

THE CURRENTLY EFFECTIVE FEE SCHEDULE. THE REVIEW FEES SHALL BE PAID IN FULL PRIOR TO REVIEW OF THE PLANS.

PART 104.10.3 PERMIT APPLICATION AND PLAN REVIEW EXPIRATION

PERMIT APPLICATIONS AND PLAN REVIEWS FOR WHICH NO PERMIT IS ISSUED SHALL EXPIRE 6 MONTHS FOLLOWING THE DATE OF THE APPLICATION. ANY REVIEWED PLANS MAY BE DESTROYED BY THE AHJ IF NOT RECLAIMED BY THEIR APPLICANT.

PART 104.10.4 WORK WITHOUT A PERMIT

WHEN ANY WORK IS PERFORMED ON-SITE WITHOUT FIRST OBTAINING A PERMIT FROM THE AHJ, AN INVESTIGATION OF SUCH WORK SHALL BE MADE BY THE AHJ AND THE INVESTIGATION FEE PAID BEFORE A PERMIT MAY BE ISSUED.

PART 104.11 INSPECTIONS AND TESTS

PART 104.11.1 REQUIRED INSPECTIONS AND TESTS

ALL WORK SHALL BE CHECKED AND TESTED BY THE PERMITTEE AS REQUIRED BY THIS CODE. ALL WORK IS SUBJECT TO INSPECTION BY THE AHJ AS NECESSARY TO CONFIRM COMPLIANCE WITH THIS CODE.

104.11.2 REQUESTS FOR INSPECTIONS.

THE PERMITTEE SHALL NOTIFY THE AHJ WHEN THE WORK, OR ANY PORTION THEREOF, HAS BEEN COMPLETED AND TESTED AND IS READY FOR INSPECTION BY THE AHJ. THE PERMITTEE SHALL COORDINATE THE SCHEDULING OF THE REQUIRED INSPECTIONS WITH THE AHJ AND PROVIDE THE NECESSARY ACCESS AND MEANS OF TESTING AND OPERATION TO DEMONSTRATE THAT THE WORK IS COMPLIANT WITH THE REQUIREMENTS OF THIS CODE. WHERE THE WORK HAS

BEEN CONCEALED PRIOR TO INSPECTION, IT SHALL BE MADE ACCESSIBLE AS REQUIRED UNTIL THE NECESSARY INSPECTIONS ARE COMPLETE.

PART 104.11.3 REINSPECTIONS

WHERE WORK DOES NOT PASS ITS INITIAL INSPECTION BY THE AHJ, THE WORK SHALL BE CORRECTED AND REINSPECTED.

PART 104.11.4 REINSPECTION FEES

WHERE A REINSPECTION FEE IS ASSESSED, THE PERMITTEE SHALL PAY THE FEE BEFORE ANY FURTHER WORK ON THE PROJECT IS INSPECTED BY THE AHJ. A REINSPECTION FEE MAY BE APPLIED BY THE AHJ FOR ANY OF THE FOLLOWING CONDITIONS:

1. FAILURE TO PROVIDE ACCESS FOR INSPECTIONS ON THE DATE AND TIME SCHEDULED.
2. FAILURE TO HAVE APPROVED PLANS ON SITE AVAILABLE TO THE INSPECTOR WHERE REQUIRED.
3. THE WORK IS NOT COMPLETED FOR THE SCHEDULED INSPECTION.
4. CORRECTIVE WORK IS NOT COMPLETED FOR REINSPECTION AS SCHEDULED.
5. CORRECTED WORK DOES NOT PASS ITS REINSPECTION.
6. THE WORK DEVIATES FROM APPROVED PLANS AND REQUIRES RESUBMITTAL, APPROVAL, AND REINSPECTION.

PART 104.12 FINAL CONNECTIONS

PART 104.12.1 PLUMBING PIPING

NO PLUMBING PIPING SHALL BE CONNECTED TO ANY FIXTURE, APPLIANCE, OR EQUIPMENT BEING INSTALLED PRIOR TO THE APPROVAL OF THE AHJ.

PART 104.12.2 ENERGY OR FUEL

NO SOURCES OF ENERGY OR FUEL SHALL BE CONNECTED TO ANY EQUIPMENT BEING INSTALLED PRIOR TO THE APPROVAL OF THE AHJ.

PART 104.12.3 TEMPORARY CONNECTIONS

SOURCES OF ENERGY OR FUEL USED ONLY FOR TESTING PURPOSES DURING INSTALLATION MAY BE TEMPORARILY CONNECTED TO EQUIPMENT WHEN AUTHORIZED IN WRITING BY THE AHJ.

PART 104.13 UNCONSTITUTIONALITY/SEVERABILITY

IF ANY PART, CHAPTER, SECTION, SUBSECTION, SENTENCE, CLAUSE, PHRASE, OR TABLE OF THIS CODE IS HELD FOR ANY REASON AS UNCONSTITUTIONAL, SUCH DECISION SHALL NOT AFFECT THE VALIDITY OF THE REMAINING PARTS, CHAPTERS, SECTIONS, SUBSECTIONS, SENTENCES, CLAUSES, PHRASES, OR TABLES OF THIS CODE.

PART 105 LICENSING

PART 105.1 PLUMBERS AND GASFITTERS

INDIVIDUALS PERFORMING PLUMBING AND OR GASFITTING WORK WITHIN THE SCOPE OF THIS CODE SHALL BE PROPERLY LICENSED IN ACCORDANCE WITH ARTICLE 21, TITLE 15, SUBTITLE 2 – LICENSING OF THE BALTIMORE COUNTY CODE.

PART 105.2 PROPANE GAS SERVICE INSTALLERS

INDIVIDUALS PERFORMING PROPANE GAS SERVICE INSTALLATION WORK WITHIN THE SCOPE OF THIS CODE SHALL BE QUALIFIED FOR THE INSTALLATION OF THE CONTAINERS, PIPING, AND ASSOCIATED EQUIPMENT FOR DELIVERING PROPANE GAS TO A BUILDING FOR USE AS ITS FUEL GAS BY BEING CERTIFIED FOR CATEGORIES 1.0, 4.1, AND 4.2 OF THE CERTIFIED EMPLOYEE TRAINING PROGRAM (CETP) OF THE NATIONAL PROPANE GAS ASSOCIATION.

PART 200 INTERNATIONAL PLUMBING CODE (IPC), ADOPTED BY REFERENCE

THE INTERNATIONAL PLUMBING CODE (IPC), 2021 EDITION; THE INTERNATIONAL FUEL GAS CODE (IFGC), 2021 EDITION; AND THE LIQUEFIED PETROLEUM GAS CODE (NFPA 58), 2020 EDITION, EACH AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL, ARE HEREBY ADOPTED BY REFERENCE. UNLESS DELETED, AMENDED, EXPANDED OR OTHERWISE CHANGED HEREIN, ALL PROVISIONS OF SUCH CODES SHALL BE FULLY APPLICABLE AND BINDING.

CHAPTER 1—SCOPE AND APPLICATION

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

101.1 GENERAL

THE REQUIREMENTS OF PART 100 – COMMON PROVISIONS OF THIS PLUMBING AND GASFITTING CODE OF BALTIMORE COUNTY APPLY TO THIS PART 200.

101.2 SCOPE

THE PROVISIONS OF THIS CODE SHALL APPLY TO THE DESIGN, INSTALLATION, OPERATION, ALTERATION, ADDITIONS, REPLACEMENT, REPAIRS, AND MAINTENANCE OF PLUMBING SYSTEMS WITHIN BALTIMORE COUNTY,

MARYLAND. THE APPENDICES MAY BE USED FOR REFERENCE BUT SHALL NOT APPLY UNLESS SPECIFICALLY ADOPTED.

101.2.1 FAMILY DWELLINGS

DETACHED ONE- AND TWO-FAMILY DWELLINGS AND MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) NOT MORE THAN THREE STORIES HIGH WITH SEPARATE MEANS OF EGRESS AND THEIR ACCESSORY STRUCTURES ARE WITHIN THE SCOPE OF THIS CODE. THE PLUMBING REQUIREMENTS OF THE INTERNATIONAL RESIDENTIAL CODE (IRC) SHALL NOT APPLY.

101.4 UNCONSTITUTIONALITY/SEVERABILITY

REFER TO PART 100, SECTION 104.13.

112.5 COORDINATION WITH PART 100 – COMMON PROVISIONS

THE INSPECTIONS AND TESTS IN THIS SECTION 107 SHALL BE COORDINATED WITH THE REQUIREMENTS OF IPC SECTION 101.1 AS REPLACED. REFER TO PART 100, SECTION 104.11.

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

SECTION 101.3, SECTIONS 102-106, SECTIONS 113-115

CHAPTER 2—DEFINITIONS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

SECTION 202 – GENERAL DEFINITIONS

AAV: AIR ADMITTANCE VALVE.

AHJ: AUTHORITY HAVING JURISDICTION.

AUTHORITY HAVING JURISDICTION: THE INDIVIDUAL OR DEPARTMENT OF THE GOVERNMENT AGENCY THAT ADMINISTERS AND ENFORCES THIS CODE. THE AHJ FOR BALTIMORE COUNTY IS THE DIRECTOR OF THE DEPARTMENT OF PERMITS, APPROVALS, AND INSPECTIONS OR THE DIRECTOR'S DESIGNEE.

BC-IPC-TABLE: THE DESIGNATION OF A BALTIMORE COUNTY TABLE.

BRANCH INTERVAL: TEN (10) FEET. THE VERTICAL DISTANCE FOR SIZING DRAIN STACKS BASED ON THE NUMBER OF EQUIVALENT FLOORS. FIVE (5) BRANCH INTERVALS = 50 FEET.

BRANCH VENT: ATMOSPHERIC VENT PIPING THAT CONNECTS TWO OR MORE FIXTURE VENTS ON THE SAME FLOOR.

BRANCH VENT RISER: VERTICAL ATMOSPHERIC VENT PIPING THAT CONNECTS BRANCH VENT PIPING ON TWO OR MORE FLOORS AND EXTENDS THEM TO THE STACK VENT FOR THEIR DRAIN STACK OR TO AN OUTDOOR VENT TERMINAL.

CODE OFFICIAL: THE AUTHORITY HAVING JURISDICTION (AHJ).

COMMON BRANCH PIPING: BRANCH PIPING WITH MULTIPLE BRANCHES.

COMMON VENT: AN INDIVIDUAL VENT FOR TWO TRAPPED FIXTURES IN ACCORDANCE WITH SECTION 911.

CONDENSATE DRAIN*:* PIPING THAT CONVEYS CLEAR WATER WASTE FROM CONDENSATING EQUIPMENT TO AN APPROVED POINT OF DISCHARGE.

10D*:* A DISTANCE IN PIPING BASED ON THE NUMBER OF PIPE DIAMETERS OF THE PIPE. 10D = 40 INCHES FOR 4" PIPING.

DRAIN STACK: A SOIL OR WASTE STACK.

DRAIN STACK PRESSURE RELIEF VENTS: PRESSURE RELIEF VENT PIPES FROM A DRAIN STACK TO ITS VENT STACK AT 100-FOOT MAXIMUM INTERVALS OF THE DRAIN STACK.

END-USE DEVICE: A WATER SUPPLY DEVICE THAT DISCHARGES POTABLE WATER SUCH AS A FAUCET, BATHTUB AND/OR SHOWER FAUCET, A SHOWER HEAD, HOSE BIBB, OR DRINKING FOUNTAIN.

FULL PORT VALVE: A WATER CONTROL OR SHUTOFF COMPONENT IN THE WATER SUPPLY SYSTEM WHERE THE COMPONENT'S CLOSURE MEMBER IS NOT A RESTRICTION IN THE COMPONENT'S THROUGH-FLOW AREA.

HW/CW: HOT WATER/COLD WATER

LEAD-FREE: CONTAINING NOT MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAD FOR THE WETTED SURFACES OF PIPES, TUBES, FITTINGS FOR PIPES AND TUBES, PLUMBING SUPPLY FITTINGS, END-USE DEVICES, AND FIXTURES. LEAD-FREE SOLDER CONTAINS NO MORE THAN 0.2% LEAD.

LOOP VENT: A CIRCUIT VENT THAT DOES NOT REQUIRE A CIRCUIT RELIEF VENT.

PIPING: ASSEMBLED PIPE AND TUBING WITH FITTINGS, VALVES, AND OTHER ITEMS THAT CONVEY WATER, DRAINAGE, OR VENT AIR.

PLUMBING FACILITIES: RESTROOMS, TOILET ROOMS, BATHROOMS, KITCHENS, LAUNDRY ROOMS, AND OTHER SPACES THAT CONTAIN PLUMBING FIXTURES.

STACK VENT: A FULL-SIZE ATMOSPHERIC VENT PIPE FROM THE TOP OF A DRAIN STACK THAT IS EXTENDED TO AN OUTDOOR VENT TERMINAL.

THIS CODE: THIS PART 200 OF THE PLUMBING AND GASFITTING CODE OF BALTIMORE COUNTY.

TOWNHOUSE: A MULTI-DWELLING UNIT CONSISTING OF A GROUP OF THREE OR MORE ATTACHED SINGLE-FAMILY DWELLINGS.

VENT HEADER: ATMOSPHERIC VENT PIPING THAT CONNECTS TWO OR MORE STACK VENTS.

VENT STACK: A POSITIVE PRESSURE RELIEF VENT PIPE FROM THE BASE OF A DRAIN STACK THAT IS 50 FEET OR MORE IN HEIGHT, AND IS CONNECTED TO THE STACK VENT FOR THE DRAIN STACK OR EXTENDED TO AN INDEPENDENT OUTDOOR VENT TERMINAL. DRAIN STACK PRESSURE RELIEF VENTS ARE CONNECTED TO ITS VENT STACK AT 100-FOOT MAXIMUM SPACING. BRANCH FIXTURE VENTS MAY BE CONNECTED TO THE VENT STACK FOR THEIR DRAIN STACK.

VERTICAL SECTIONS OF DRAIN STACKS: THE SECTIONS OF A DRAIN STACK THAT ARE BETWEEN HORIZONTAL OFFSETS. THEY INCLUDE COMPLETE DRAIN STACKS THAT HAVE NO HORIZONTAL OFFSETS.

WET VENT DRAIN PIPE: AN OVER-SIZED WASTE DRAIN PIPE THAT ALSO VENTS THE FIXTURES.

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

SECTIONS 201.3, 202 – GENERAL DEFINITIONS (BUILDING DRAIN, COMBINED, BUILDING SEWER, COMBINED, CONDUCTOR, FULL-OPEN VALVE)

CHAPTER 3—GENERAL REGULATIONS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

301.6 PROHIBITED PLUMBING IN ELEVATOR PITS AND ELEVATOR EQUIPMENT ROOMS

EXCEPT AS INDICATED IN SECTIONS 301.6.1 AND 301.6.2, PLUMBING PUMPS AND PIPING SHALL NOT BE LOCATED IN AN ELEVATOR PIT, ELEVATOR SHAFT, OR ELEVATOR EQUIPMENT ROOM. FOUNDATION DRAINS AND OTHER SOURCES OF GROUND WATER SHALL NOT BE CONNECTED TO ELEVATOR PITS.

301.6.1 HYDRAULIC ELEVATORS

OIL SEPARATORS SHALL BE PROVIDED FOR HYDRAULIC ELEVATORS IN ACCORDANCE WITH SECTION 1003.4 EXCEPT WHERE AN ALARM SYSTEM IS PROVIDED TO MAINTAIN ELEVATOR OPERATION FOR EMERGENCY USE BY FIRE FIGHTERS.

301.6.2 ELEVATORS WITH EMERGENCY OPERATION FOR FIRE FIGHTERS

REFER TO SECTION 317 FOR THE REQUIRED DRAINAGE FOR ELEVATORS THAT INCLUDE EMERGENCY OPERATION FOR FIRE FIGHTERS.

301.7 CONFLICTS

CONFLICTS BETWEEN THIS CODE AND A MANUFACTURER'S APPLICATION OR INSTALLATION INSTRUCTIONS SHALL BE RESOLVED BY THE AHJ.

303.3 PLASTIC PIPE, FITTINGS, AND COMPONENTS

PLASTIC PIPE, TUBING, FITTINGS, AND COMPONENTS SHALL BE THIRD-PARTY CERTIFIED AS TO CONFORMING TO NSF 14. ITEMS ASSOCIATED WITH POTABLE WATER SHALL ALSO BE CERTIFIED TO NSF 61.

305.4 FREEZING

WATER PIPING AND DRAIN PIPING SHALL NOT BE INSTALLED OUTDOORS, IN ATTICS, IN CRAWL SPACES, CONCEALED IN OUTSIDE WALLS, OR IN ANY OTHER PLACE SUBJECTED TO FREEZING TEMPERATURES UNLESS ADEQUATE PROVISION IS MADE TO PROTECT SUCH PIPING FROM FREEZING BY THERMAL INSULATION OR HEAT OR BOTH.

305.4.1 DEPTH OF WATER SUPPLY PIPING

THE MINIMUM EARTH COVER ABOVE THE TOP OF UNDERGROUND WATER PIPING OUTSIDE OF A BUILDING SHALL BE 36 INCHES.

305.4.2 DEPTH OF DRAINS AND SEWERS

THE MINIMUM EARTH COVER ABOVE THE TOP OF UNDERGROUND DRAIN PIPING OUTSIDE OF A BUILDING AND BUILDING SEWERS SHALL BE 30 INCHES IF CONNECTED TO A PUBLIC SEWER SYSTEM OR 24 INCHES IF CONNECTED TO A PRIVATE SEWAGE DISPOSAL SYSTEM.

306.5 UNDERGROUND INSTALLATION OF FLEXIBLE THERMOPLASTIC DRAIN PIPE

UNDERGROUND FLEXIBLE THERMOPLASTIC DRAIN PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND ALL RECOMMENDATIONS OF PRACTICE ASTM D2321. ASTM D2321 INCLUDES ACCEPTABILITY OF THE SOIL FOR FLEXIBLE PIPING, MINIMUM TRENCH WIDTH, SUPPORT OF TRENCH WALLS, MINIMUM COVER, LOAD/DEFLECTION OF THE EMBEDMENT MATERIALS, DEFLECTION BY CONSTRUCTION LOADS, EMBEDMENT AT PIPE HAUNCHES, AND EMBEDMENT WIDTH FOR ADEQUATE SUPPORT.

306.5.1 TRACER WIRE

ANY NEW OR REPLACEMENT PIPING THAT IS BURIED OR INSTALLED FOR THE PURPOSE OF CONNECTING A BUILDING TO WATER SUPPLY SYSTEM OR A SEWAGE SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF §12-129 OF THE PUBLIC UTILITIES ARTICLE OF THE MARYLAND ANNOTATED CODE.

A. ANY NEW OR REPLACEMENT PIPING THAT IS BURIED OR INSTALLED FOR THE PURPOSE OF CONNECTING A BUILDING TO A WATER SUPPLY SYSTEM OR A SEWAGE SYSTEM SHALL BE BURIED OR INSTALLED WITH A WIRE THAT MAKES THE PIPING DETECTABLE.

B. THE WIRE REQUIRED UNDER SUBSECTION (A) OF THIS SECTION SHALL:

    1) BE AN INSULATED COPPER TRACER WIRE THAT IS SUITABLE FOR DIRECT BURIAL AND HAS AN AMERICAN WIRE GAUGE (AWG) OF AT LEAST 10, OR AN EQUIVALENT PRODUCT.

    2) BE INSTALLED:

        a) IN THE SAME TRENCH AS THE PIPING THAT CONNECTS THE BUILDING TO THE WATER SUPPLY SYSTEM OR THE SEWAGE SYSTEM WITHIN 12 INCHES OF THE PIPE.

        b) ONE END OF THE WIRE TERMINATING ABOVE GRADE IN A LOCATION THAT IS ACCESSIBLE AND RESISTANT TO PHYSICAL DAMAGE SUCH AS A CLEANOUT OR NEXT TO AN EXTERNAL WALL OF THE BUILDING.

        c) THE WIRE SHALL BE INSTALLED ALONG THE ENTIRE WATER OR SEWAGE SYSTEM FROM THE EXTERNAL BUILDING WALL

TO THE PROPERTY LINE OR CLEANOUT AT THE PROPERTY LINE.

C. TRACER WIRE SHALL ONLY BE REQUIRED FOR A COMPLETE REPLACEMENT OF THE PIPING.

D. TRACER WIRE SHALL NOT BE REQUIRED FOR METALLIC WATER OR SEWAGE PIPING.

309.2 PLUMBING

PLUMBING IN BUILDINGS AND STRUCTURES THAT ARE LOCATED IN FLOOD HAZARD AREAS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS OF BALTIMORE COUNTY FOR THE DESIGN AND CONSTRUCTION OF UTILITY SYSTEMS IN FLOOD-PRONE AREAS.

1. IN NEW CONSTRUCTION OR SUBSTANTIAL IMPROVEMENT, NO PLUMBING SHALL BE INSTALLED ON OR ABOVE THE LOWEST FLOOR LEVEL UNTIL THE CONSTRUCTED ELEVATION OF THE LOWEST FLOOR HAS BEEN INSPECTED, MEASURED, VERIFIED FOR COMPLIANCE, DOCUMENTED, AND ACCEPTED BY BALTIMORE COUNTY.
2. PLUMBING WORK SHALL NOT BE INSTALLED ON OR PENETRATE THROUGH WALLS THAT ARE DESIGNED TO BREAK AWAY UNDER FLOOD CONDITIONS.
3. UNDERGROUND PIPING FOR WATER SERVICE, BUILDING DRAINS, AND BUILDING SEWERS SHALL BE INSTALLED ACCORDING TO ASCE 24, SECTION 7.3.1.
4. PLUMBING PIPING, FIXTURES, AND EQUIPMENT WITHIN A BUILDING OR STRUCTURE SHALL BE INSTALLED AT OR ABOVE THE REQUIRED BASE

FLOOD ELEVATION (BFE) OR DESIGN FLOOD ELEVATION (DFE) AS INDICATED IN ASCE 24, TABLE 7-1. PLUMBING PIPING INCLUDES PIPING FOR WATER SERVICE, HW/CW DISTRIBUTION, SANITARY DRAINAGE, VENTING, AND STORM WATER DRAINAGE.

5. SANITARY DRAIN PIPING AND VENT PIPING SHALL BE INSTALLED ACCORDING TO ASCE 24, SECTION 7.3.4 TO PREVENT INFILTRATION FROM OR DISCHARGE INTO FLOODWATER.
6. VERTICAL PIPING FROM UNDERGROUND TO ABOVE THE FLOOD LEVEL ELEVATION SHALL BE SUPPORTED FROM A FLOOD-PROTECTED BUILDING STRUCTURAL MEMBER AND COVERED TO PROTECT IT FROM DAMAGE BY DEBRIS ACCORDING TO ASCE 24, SECTION 7.3.2.
7. WATER HEATERS SHALL BE INSTALLED AT AN ELEVATION AT OR ABOVE THE REQUIRED BFE OR DFE PROTECTION LEVEL IN ASCE 24, TABLE 7-1. IF INSTALLED IN AN ATTIC OR UNFINISHED AREA, THEY SHALL HAVE ADEQUATE STRUCTURAL SUPPORT, ACCESS FOR MAINTENANCE AND REPLACEMENT, AND A DRIP PAN PER SECTION 504.7 OF THIS CODE WITH DRAINAGE.
8. WHERE A PLUMBING FIXTURE OR PIPING HAS A DRAIN OR VENT OPENING BELOW THE REQUIRED BFE OR DFE PROTECTION LEVEL IN ASCE 24, TABLE 7-1 THAT IS SUBJECT TO BACKFLOW OR INFILTRATION, IT SHALL BE PROTECTED ACCORDING TO ASCE 24, SECTION 7.3.3.
9. MANHOLE COVERS SHALL BE SEALED UNLESS ELEVATED TO OR ABOVE THE REQUIRED BFE OR DFE PROTECTION LEVEL IN ASCE 24, TABLE 7-1.

317 – DRAINAGE FOR ELEVATORS WITH FIRE SERVICE ACCESS

317.1 GENERAL

THE PITS FOR ELEVATORS WITH FIRE SERVICE ACCESS SHALL BE PROVIDED WITH DRAINAGE TO MAINTAIN OPERATION OF THE ELEVATORS. THE REQUIRED FLOW CAPACITY OF THE DRAINAGE SHALL BE NOT LESS THAN 3000 GPH (50 GPM) PER ELEVATOR OR PER HOISTWAY AS REQUIRED BY ASME A17.1 –2019. HOISTWAYS MAY INCLUDE UP TO FOUR (4) ELEVATORS. THE DRAINAGE SHALL DISCHARGE TO AN APPROVED LOCATION, NOT THE SAME AS USED FOR STORM WATER DISCHARGE. SUMP PITS FOR DRAINS AND PUMPS SHALL HAVE A SECURED GRATE-TYPE COVER THAT IS OPERABLE OR REMOVEABLE AND IS FLUSH WITH THE SURROUNDING FINISHED FLOOR OF THE ELEVATOR HOISTWAY.

317.2.2 PUMP DISCHARGE PIPING

THE DISCHARGE PIPING FOR ELEVATOR SUMP PUMPS SHALL HAVE A CHECK VALVE AND QUARTER-TURN SHUTOFF VALVE. THE SHUTOFF VALVE SHALL BE VISIBLE IN THE ELEVATOR PIT AND HAVE VISIBLE INDICATION OF ITS FULL-OPEN AND FULL-CLOSED POSITIONS.

317.2.3 GRAVITY DRAIN PIPING

GRAVITY DRAIN PIPING FROM SUMP PUMPS FOR ELEVATOR FIRE SERVICE ACCESS SHALL BE SIZED BASED ON 2 DFU/GPM. THE DRAIN PIPING FROM A 3000 GPH (50 GPM) PUMP DISCHARGE SHALL BE NOT LESS THAN 4” PIPE SIZE.

317.2.4 OUTDOOR DISCHARGE

FOR OUTDOOR DISCHARGE, THE LOCATION SHALL BE APPROVED BY THE AHJ AND BE MARKED “ELEVATOR PIT DISCHARGE”.

317.2.5 INDOOR DISCHARGE

INDOOR DISCHARGE SHALL BE EXTENDED FROM THE PIT TO AN INDIRECT WASTE RECEPTOR OR TO AN INDIRECT CONNECTION TO GRAVITY DRAIN PIPING WITH AN AIR GAP OR AIR BREAK. THE POINT OF INDIRECT DISCHARGE SHALL BE MARKED “ELEVATOR PIT DISCHARGE”.

CHAPTER 4—FIXTURES, FAUCETS, AND FIXTURE FITTINGS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

403.1.1 FIXTURE CALCULATIONS

EXCEPTION 2

WHERE MULTIPLE–USER FACILITIES ARE DESIGNED TO SERVE ALL GENDERS, THE MINIMUM FIXTURE COUNT SHALL BE CALCULATED 100 PERCENT, BASED ON TOTAL OCCUPANT LOAD. IN SUCH MULTIPLE-USER FACILITIES, EACH FIXTURE TYPE SHALL BE IN ACCORDANCE WITH ICC A117.1 AND EACH URINAL THAT IS PROVIDED SHALL BE LOCATED IN A STALL.

EXCEPTION 3

DISTRIBUTION OF THE SEXES IS NOT REQUIRED WHERE SINGLE-USER WATER CLOSETS AND BATHING ROOM FIXTURES ARE PROVIDED IN ACCORDANCE WITH SECTION 403.1.2.

403.1.2 SINGLE-USER TOILET AND BATHING ROOM FIXTURES

THE PLUMBING FIXTURES LOCATED IN SINGLE-USER TOILET AND BATHING ROOMS, INCLUDING FAMILY OR ASSISTED-USE TOILET AND BATHING ROOMS THAT ARE REQUIRED BY SECTION 1109.2.1 OF THE INTERNATIONAL BUILDING CODE, SHALL CONTRIBUTE TOWARD THE TOTAL NUMBER OF REQUIRED PLUMBING FIXTURES FOR A BUILDING OR TENANT SPACE. SINGLE-USER TOILET AND BATHING ROOMS, AND FAMILY OR ASSISTED-USE TOILET ROOMS AND BATHING ROOMS SHALL BE IDENTIFIED AS BEING AVAILABLE FOR USE BY ALL PERSONS REGARDLESS OF THEIR SEX. THE TOTAL NUMBER OF FIXTURES SHALL BE PERMITTED TO BE BASED ON THE REQUIRED NUMBER OF SEPARATE FACILITIES OR BASED ON THE AGGREGATE OF ANY COMBINATION OF SINGLE-USE OR SEPARATE FACILITIES.

403.2 SEPARATE FACILITIES

EXCEPTION 5

SEPARATE FACILITIES SHALL NOT BE REQUIRED TO BE DESIGNATED BY SEX WHERE SINGLE-USE TOILETS ROOM ARE PROVIDED IN ACCORDANCE WITH SECTION 403.1.2.

EXCEPTION 6

SEPARATE FACILITIES SHALL NOT BE REQUIRED WHERE ROOMS HAVING BOTH WATER CLOSETS AND LAVATORY FIXTURES ARE DESIGNED FOR USE BY BOTH SEXES AND PRIVACY FOR WATER CLOSETS IS PROVIDED IN ACCORDANCE WITH SECTION 405.3.4. URINALS SHALL BE LOCATED IN AN AREA VISUALLY SEPARATED FROM THE REMAINDER OF THE FACILITY OR EACH URINAL THAT IS PROVIDED SHALL BE LOCATED IN A STALL.

403.3.1 ACCESS

THE ROUTE TO THE PUBLIC TOILET FACILITIES REQUIRED BY SECTION 403.3 SHALL NOT PASS-THROUGH KITCHENS, STORAGE ROOMS OR CLOSETS. ACCESS TO THE REQUIRED FACILITIES SHALL BE FROM WITHIN THE BUILDING OR FROM THE EXTERIOR OF THE BUILDING. THE PUBLIC SHALL HAVE ACCESS TO THE REQUIRED TOILET FACILITIES AT ALL TIMES THAT THE BUILDING IS OCCUPIED.

403.5 DRINKING FOUNTAIN LOCATION.

DRINKING FOUNTAINS SHALL NOT BE REQUIRED TO BE LOCATED IN INDIVIDUAL TENANT SPACES PROVIDED THAT THE PUBLIC DRINKING FOUNTAINS ARE LOCATED WITHIN A DISTANCE OF TRAVEL OF 500 FEET OF THE MOST REMOTE LOCATION IN THE TENANT SPACE AND NOT MORE THAN ONE STORY ABOVE OR BELOW THE TENANT SPACE. WHERE THE TENANT SPACE IS IN A COVERED OR OPEN MALL, SUCH DISTANCE SHALL NOT EXCEED 300 FEET.

403.3.3 LOCATION OF TOILET FACILITIES IN OCCUPANCIES OTHER THAN MALLS

EXCEPTION 2

THE LOCATION AND MAXIMUM DISTANCES OF TRAVEL TO REQUIRED PUBLIC AND EMPLOYEE FACILITIES IN GROUP S OCCUPANCIES SHALL BE PERMITTED TO EXCEED THAT REQUIRED BY THIS SECTION, PROVIDED THAT THE LOCATION AND MAXIMUM DISTANCES OF TRAVEL ARE APPROVED.

403.6 SERVICE SINK LOCATION

SERVICE SINKS SHALL NOT BE REQUIRED TO BE LOCATED IN INDIVIDUAL TENANT SPACES IN A COVERED MALL PROVIDED THAT SERVICE SINKS ARE

LOCATED WITHIN A DISTANCE OF TRAVEL OF 300 FEET OF THE MOST REMOTE LOCATION IN THE TENANT SPACE AND NOT MORE THAN ONE STORY ABOVE OR BELOW THE TENANT SPACE. SERVICE SINKS SHALL BE LOCATED ON AN ACCESSIBLE ROUTE.

404.4 ACCESSIBLE PLUMBING FIXTURES

PLUMBING FIXTURES FOR ACCESSIBLE USE AND THEIR INSTALLATION SHALL COMPLY WITH THE MARYLAND ACCESSIBILITY CODE (COMAR 09.12.53) FOR FACILITIES WITHIN ITS SCOPE.

412.1.3 PLUMBING SUPPLY FITTINGS AND ACCESSORIES

THE FOLLOWING PLUMBING SUPPLY FITTINGS AND ACCESSORIES BETWEEN THE SUPPLY LINE STOP AND THE TERMINAL FITTING SHALL COMPLY WITH ASME A112.18.1/CSA B125.1:

A. AUTOMATIC COMPENSATING VALVES FOR INDIVIDUAL WALL-MOUNTED SHOWERING SYSTEMS;
B. BATH AND SHOWER SUPPLY FITTINGS;
C. BIDET SUPPLY FITTINGS;
D. CLOTHES WASHER SUPPLY FITTINGS;
E. DRINKING FOUNTAIN SUPPLY FITTINGS;
F. HUMIDIFIER SUPPLY STOPS;
G. KITCHEN SINK AND LAVATORY SUPPLY FITTINGS;
H. LAUNDRY TUB SUPPLY FITTINGS;
I. LAWN AND SEDIMENT FAUCETS;
J. METERING AND SELF-CLOSING SUPPLY FITTINGS;

K. SUPPLY STOPS.

412.4 MULTIPLE (GANG) SHOWERS

MULTIPLE (GANG) SHOWERS SUPPLIED WITH A SINGLE, TEMPERED WATER SUPPLY PIPE SHALL HAVE THE WATER SUPPLY FOR SUCH SHOWERS CONTROLLED BY AN APPROVED AUTOMATIC TEMPERATURE CONTROL MIXING VALVE THAT CONFORMS TO ASSE 1069 OR CSA B125.3, OR EACH SHOWER HEAD SHALL BE INDIVIDUALLY CONTROLLED BY A BALANCED-PRESSURE, THERMOSTATIC OR COMBINATION BALANCED-PRESSURE/THERMOSTATIC VALVE THAT CONFORMS TO ASSE 1016/ASME A112.1016/CSA B125.16 OR ASME A112.18.1/CSA B125.1 AND IS INSTALLED AT THE POINT OF USE. SUCH VALVES EQUIPPED WITH A MEANS TO LIMIT THE MAXIMUM SETTING OF THE VALVE TO 120°F, WHICH SHALL BE FIELD ADJUSTED IN ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS TO PROVIDE WATER AT A TEMPERATURE NOT TO EXCEED 120°F. ACCESS SHALL BE PROVIDED TO AN ASSE OR CSA B125.3 VALVE.

412.5 BATHTUB AND WHIRLPOOL BATHTUB VALVES

BATHTUBS AND WHIRLPOOL BATHTUB VALVES SHALL HAVE OR BE SUPPLIED BY A WATER-TEMPERATURE-LIMITING DEVICE THAT CONFORMS TO ASSE 1070/ASME A112.1070/CSA B125.70 OR BY A WATER HEATER COMPLYING WITH ASSE 1082 OR ASSE 1084, EXCEPT WHERE SUCH VALVES ARE COMBINATION TUB/SHOWER VALVES IN ACCORDANCE WITH SECTION 412.3. THE WATER-TEMPERATURE-LIMITING DEVICE REQUIRED BY THIS SECTION SHALL BE EQUIPPED WITH A MEANS TO LIMIT THE MAXIMUM SETTING OF THE DEVICE TO

120°F, AND, WHERE ADJUSTABLE, SHALL BE FIELD ADJUSTED IN ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS TO PROVIDE HOT WATER AT A TEMPERATURE NOT TO EXCEED 120°F. ACCESS SHALL BE PROVIDED TO WATER-TEMPERATURE-LIMITING DEVICES THAT CONFORM TO ASSE A112.1070/CSA B125.70.

EXCEPTION:

ACCESS SHALL NOT BE REQUIRED FOR NONADJUSTABLE WATER-TEMPERATURE-LIMITING DEVICES THAT CONFORM TO ASSE 1070/ASME A112.1070/CSA B125.70 AND ARE INTEGRAL WITH A FIXTURE FITTING, PROVIDED THAT THE FIXTURE FITTING ITSELF CAN BE ACCESSED FOR REPLACEMENT.

412.5.1 TEMPERATURE LIMITING BY WATER HEATERS

ASSE 1084 CERTIFIED WATER HEATERS INCLUDE WATER TEMPERATURE LIMITING CONTROL. ASSE 1082 CERTIFIED WATER HEATERS DO NOT INCLUDE WATER TEMPERATURE LIMITING CONTROL.

414.2 INSTALLATION

SANITARY FLOOR SINKS SHALL BE INSTALLED FLUSH WITH THE SURROUNDING FINISHED FLOOR.

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

SECTION 407.2

CHAPTER 5—WATER HEATERS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

501.5 WATER HEATER COMPLIANCE

WATER HEATERS SHALL BE SUITABLE FOR HEATING POTABLE WATER AND BE THIRD-PARTY CERTIFIED.

501.9 TEMPERATURE SETTING AND TESTING

AFTER COMPLETE INSTALLATION AND OPERATION, THE TEMPERATURE CONTROLS FOR WATER HEATERS SHALL BE ADJUSTED TO NOT MORE THAN THE MAXIMUM SETTING FOR THEIR APPLICATION AND SHALL BE TESTED TO VERIFY PROPER OPERATION BEFORE APPROVAL AND ACCEPTANCE.

504.7 REQUIRED DRIP PAN

WHERE TANK-TYPE WATER HEATERS OR HOT WATER STORAGE TANKS ARE INSTALLED IN LOCATIONS WHERE LEAKAGE WILL CAUSE STRUCTURAL DAMAGE TO THE BUILDING OR PROPERTY DAMAGE TO ITS CONTENTS, THEY SHALL HAVE A DRIP PAN CONSTRUCTED OF ONE OF THE FOLLOWING MATERIALS:

1. GALVANIZED STEEL OR ALUMINUM WITH NOT LESS THAN 0.0236-INCH THICKNESS.
2. PLASTIC WITH NOT LESS THAN 0.036-INCH THICKNESS. A PLASTIC PAN SHALL NOT BE INSTALLED UNDER A GAS-FIRED WATER HEATER UNLESS THE PAN IS CATALOGED BY ITS MANUFACTURER AS DESIGNED FOR GAS WATER HEATERS AND IT IS LABELED FOR GAS.

504.7.1 DRIP PAN SIZE AND DRAIN

THE DRIP PAN SHALL BE NOT LESS THAN 1-1/2 INCHES DEEP AND SHALL BE OF SUFFICIENT SIZE AND SHAPE TO RECEIVE ALL DRIPPING OR CONDENSATE FROM

THE WATER HEATER OR STORAGE TANK. THE PAN SHALL BE DRAINED BY INDIRECT WASTE PIPING NOT LESS THAN THE SIZE OF ITS OUTLET, WITH 3/4-INCH MINIMUM PIPE SIZE. THE DRAIN PIPING SHALL BE APPROVED FOR WATER DISTRIBUTION.

504.7.2 DRIP PAN DRAIN TERMINATION

THE DRIP PAN DRAIN PIPING SHALL EXTEND FULL SIZE AND TERMINATE OVER A SUITABLY LOCATED INDIRECT WASTE RECEPTOR OR FLOOR DRAIN, OR BE EXTENDED OUTDOORS AND TERMINATE NOT LESS THAN 6 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE GROUND. THE POINT OF DISCHARGE SHALL BE VISIBLE FOR MAINTENANCE PERSONNEL AND BE LABELED. REFER TO SECTION 504.7.2.1 FOR POSSIBLE DISCHARGE TO THE FLOOR.

504.7.2.1 DISCHARGE TO THE FLOOR

THE DRAIN PIPE FROM A WATER HEATER DRAIN PAN MAY DISCHARGE TO THE FLOOR IF APPROVED BY THE AHJ. DISCHARGES TO THE FLOOR SHALL BE NOT LESS THAN 2 INCHES OR MORE THAN 6 INCHES ABOVE THE FLOOR.

504.7.2.2 FOR REPLACEMENT WATER HEATERS OR STORAGE TANKS

DRIP PANS SHALL NOT BE REQUIRED FOR REPLACEMENT WATER HEATERS OR STORAGE TANKS IF THE WATER HEATER OR TANK BEING REPLACED DID NOT HAVE A DRIP PAN. DRIP PANS MAY BE PROVIDED IF REQUIRED BY THE CONDITIONS IN SECTION 504.7.

CHAPTER 6—WATER SUPPLY AND DISTRIBUTION

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

602.3 WATER SUPPLY

PUBLIC WATER SHALL BE CONSIDERED AVAILABLE IF IT IS WITHIN 500 FEET OF ANY PROPERTY LINE OR OTHER REASONABLE DISTANCE AS DETERMINED BY THE AHJ. WHERE A POTABLE PUBLIC WATER SUPPLY IS NOT AVAILABLE, INDIVIDUAL SOURCES OF POTABLE WATER SUPPLY SHALL BE UTILIZED.

602.3.1 INDIVIDUAL SOURCES

REFER TO CHAPTER 17 FOR PRIVATE POTABLE WATER SUPPLY SYSTEMS.

603.2 SEPARATION OF WATER SERVICE AND BUILDING SEWER

WHERE WATER SERVICE PIPING IS LOCATED IN THE SAME TRENCH WITH THE BUILDING SEWER, THE BOTTOM OF THE WATER SERVICE PIPE SHALL BE NOT LESS THAN 12-INCHES ABOVE THE TOP OF THE BUILDING DRAIN AND THEY SHALL BE SEPARATED HORIZONTALLY BY NOT LESS THAN 12-INCHES BETWEEN THEIR OUTER SURFACES.

605.2 LIMITS ON LEAD CONTENT

PIPES, TUBES, FITTINGS FOR PIPE AND TUBING, PLUMBING SUPPLY FITTINGS, VALVES, FIXTURES, AND END-USE DEVICES THAT ARE ANTICIPATED TO BE USED FOR HUMAN CONSUMPTION OF POTABLE WATER BY DRINKING OR COOKING SHALL BE LEAD-FREE, CONTAINING NOT MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAD WITH RESPECT TO THE WETTED SURFACES.

605.2.2 SOLDER AND FLUX

SOLDER FOR JOINTS IN “LEAD-FREE” POTABLE WATER PIPING SHALL CONTAIN NOT MORE THAN 0.2% LEAD. FLUX SHALL BE RATED FOR USE WITH “LEAD-FREE” SOLDER.

605.2.3 END-USE DEVICES AND WATER SUPPLY PIPING

THE FOLLOWING POTABLE WATER END-USE DEVICES, INCLUDING THEIR ASSOCIATED SUPPLY PIPING, AND THE FOLLOWING WATER PIPING SHALL BE "LEAD FREE":

1. KITCHEN SINK FAUCETS
2. BAR SINK FAUCETS
3. PRIVATE BATHROOM LAVATORY FAUCETS
4. DRINKING FOUNTAIN FAUCETS
5. KITCHEN HOT WATER DISPENSERS
6. POINT-OF-USE WATER TREATMENT DEVICES
7. THE WATER SUPPLY TO ICE MAKERS
8. THE WATER SUPPLY PIPING TO WATER HEATERS FOR POTABLE WATER
9. RECIRCULATED HOT WATER PIPING
10. THE WATER SUPPLY TO MISTING SYSTEMS FOR PRODUCE IN FOOD MARKETS
11. THE WATER SUPPLY TO THE COOKING EQUIPMENT FOR FOOD IN COMMERCIAL KITCHENS
12. THE WATER SUPPLY TO PRODUCTION EQUIPMENT FOR PROCESSED FOOD CONTAINING WATER
13. ANY OTHER END-USE-DEVICE AND WATER SUPPLIES THAT CONVEY POTABLE WATER FOR HUMAN CONSUMPTION.

605.2.4 PIPING COMPONENTS

THE FOLLOWING PIPING COMPONENTS SHALL BE “LEAD-FREE” WHEN ASSOCIATED WITH “LEAD FREE” END-USE DEVICES AND PIPING THAT IS REQUIRED TO BE “LEAD FREE”:

1. MAIN SERVICE SHUTOFF VALVES.
2. WATER SERVICE BACKFLOW PREVENTERS
3. WATER METERS
4. PRESSURE BOOSTER PUMPS
5. PRESSURE REDUCING VALVES
6. STRAINERS
7. WATER FILTERS
8. CHECK VALVES
9. CONTROL VALVES
10. VACUUM BREAKERS
11. WATER HAMMER ARRESTORS
12. MASTER HOT WATER MIXING VALVES
13. IN-LINE TEMPERING VALVES
14. HOT WATER RECIRCULATING PUMPS
15. BRANCH PIPING SHUTOFF VALVES
16. BALANCING VALVES
17. FIXTURE SHUTOFF VALVES
18. SOLENOID VALVES
19. TANKLESS WATER HEATERS

20. ANY OTHER PIPING COMPONENTS ASSOCIATED WITH END-USE DEVICES OR PIPING THAT IS REQUIRED TO BE "LEAD-FREE".

605.2.5 NOT REQUIRED TO BE "LEAD-FREE"

THE FOLLOWING POTABLE WATER END-USE DEVICES, WATER SUPPLIES, AND COMPONENTS ARE NOT ANTICIPATED TO CONVEY WATER FOR HUMAN CONSUMPTION THROUGH DRINKING OR COOKING AND ARE NOT REQUIRED TO BE "LEAD FREE", INCLUDING THEIR ASSOCIATED WATER SUPPLY PIPING:

1. BATHTUB FAUCETS
2. SHOWER VALVES, HEADS, AND ADAPTERS
3. TANK-TYPE WATER HEATERS
4. FLUSH VALVES FOR WATER CLOSETS
5. FLUSH VALVES FOR URINALS
6. FLUSH VALVES FOR BIDETS
7. SHUTOFF VALVES FOR CLOTHES WASHING MACHINES
8. LAVATORY FAUCETS IN PUBLIC TOILET ROOMS
9. LAUNDRY SINK FAUCETS
10. SERVICE SINK FAUCETS
11. FAUCETS FOR LABORATORY APPLICATIONS
12. HOSE BIBBS
13. TRAP SEAL PRIMING DEVICES
14. BACKFLOW PREVENTION DEVICES FOR NON-POTABLE APPLICATIONS
15. FIRE HOSE VALVES
16. WATER HAMMER ARRESTORS

17. THE WATER SUPPLY TO DISHWASHERS
18. THE WATER SUPPLY TO WHIRLPOOLS, SPAS, THERAPY POOLS, AND SWIMMING POOLS
19. THE WATER SUPPLY TO BOILERS AND HEATING HOT WATER GENERATORS
20. THE WATER SUPPLY TO HUMIDIFIERS
21. THE WATER SUPPLY TO IRRIGATION SYSTEMS AND SIMILAR NON POTABLE APPLICATIONS
22. THE WATER SUPPLY TO FOOD PRODUCTION EQUIPMENT THAT DOES NOT CONTACT THE FOOD
23. ANY OTHER END-USE DEVICES AND WATER SUPPLIES THAT DO NOT CONVEY WATER FOR HUMAN CONSUMPTION

BC-IPC TABLE 605.3A WATER SERVICE PIPING

WATER PRESSURE RATED FOR NOT LESS THAN 200 PSI AT 73 4^{O}F AND UNDERGROUND INSTALLATION

No.	Material	Standard	Fittings
1	Copper Tube, Drawn, Type L or K ¾"-12"	ASTM B88	ASME B16.18 (Cast, Solder Joint) ASME B16.22 (Wrought, Solder Joint) ASME B16.24 (Cast, Flanges) ASME B16.26 (Cast, Flared) ASME B16.50 (Wrought, Braze Joint) ASME B16.51 (Copper, Press-Connect) ASTM F3226 (Metallic, Press-Connect) IAPMO PS 117 (Copper, Press-Connect) ASSE I061 (Copper, Push-Fit)
2	CPVC Plastic Pipe, Schedule 40	ASTM F441	ASTM F438 (Socket) ASTM Fl970 (Special Engineered)
3	CPVC Plastic Pipe, Schedule 80	ASTM F441	ASTM F437 (Threaded) ASTM F439 (Threaded, Socket) ASTM F1970 (Special Engineered)

4	CPVC Plastic Pipe (SDR-PR)	ASTM F442	ASTM F442 ASTM F1970 (Special Engineered)
5	Ductile Iron Pipe, with Threaded Flanges 3" 64"	AWWA CI 15/A21.15	ASME B 16.5 Flanges and Flanged Fittings
6	Ductile Iron Pipe, Cement-Mortar Lined 3'-64"	AWWA Cl51/A21.51	AWWAC110/A21.I0 AWWAC153/A21.53 (Compact)
7	PE Plastic Pine, ID Controlled (SIDR-PR)	AST M	ASTM D2609 (Plastic Insert)
8	PE Plastic Tubing (SDR) CTS	AST M D2737	ASTM D2683 (Socket Fusion) ASTM D326 I (Butt Heat Fusion) ASTM Fl055 (Electrofusion)
9	PE Plastic Pipe, OD Controlled (DR-PR)	AST M D3035	ASTM D2683 (Socket Fusion) ASTM D3261 (Butt Heat Fusion) ASTM FI 055 (Electrofusion)
10	PE Plastic Pipe, OD Controlled (DR-PR)	ASTM F714	ASTM D2683 (Socket Fusion) ASTM D326 I (Butt Heat Fusion) ASTM Fl055 (Electrofusion)
11	PE Plastic Water Service Pipe & Tubing	AWWAC901	ASTM D326 I (Butt Heat Fusion) ASTM Fi055 Electrofusion) ASTM D2683 (Od Socket Fusion)
12	PE-AL-Pe Composite Pressure Pipe	AST M	ASTM Fl 974 (Metal Insert) Connectors Marked for Fl282 or Fl281/Fl282
13	PEX-AL-PEX Crosslinked Pressure Pipe	ASTM Fl281	ASTM Fl974 (Metal Insert) Connectors Marked for Fl282 or Fl281/Fl282
14	PP Plastic Pressure Piping, IPS Schedule 80	AST M	ASTM F2389 (Socket Fused, Electrofusion)
15	PVC Plastic Pipe, Schedule 40	ASTM Dl785	ASTM D2466 (Socket) ASTM Fl 970 (Special Engineered)
16	PVC Plastic Pipe, Schedule 80	ASTM Dl785	ASTM D2464 (Threaded) ASTM D2467 (Socket, Threaded) ASTM F1970 (Special Engineered)
17	PVC Plastic Pipe, Schedule 120	AST M D1785	ASTM D2464 (Threaded) - Schedule 80 ASTM D2467 (Socket, Threaded) - Schedule 80 ASTM F1970 (Special Engineered) - Schedule 80
18	PVC Plastic Pressure Pipe (SDR)	ASTM D224i	ASTM D2241 ASTM F1970 (Special Engineering)
19	PVC Plastic Pressure Pipe (DR 14)	AWWA C900	AWWA C900 ASTM F1970 (Special Engineering)

NOTE: FOR PLASTIC WATER SERVICE PIPING, REFER TO BC-IPC TABLE 605.3B

FOR THE COMPOSITION, DIMENSIONS, JOINTS, AND PIPE SIZES.

BC-IPC TABLE 605.3B REQUIREMENTS FOR PLASTIC WATER SERVICE PIPING

WATER PRESSURE RATED FOR NOT LESS THAN 200 PSI AT 73.4^{O}F AND

UNDERGROUND INSTALLATION

No.	Material	Composition	Dimensions	Joints	Pipe Sizes
1	CPVC (ASTM F44L)	CPVC 4120	Schedule 40	Not Threaded	¾" - 4"
			Schedule 80	Not Threaded	¾" - 16"
				Threaded	¾" – 2½"
2	CPVC (AS1M F442) SDR	CPVC 4120	SDR 21 or Lower	Not Threaded	¾" - 12"
3	PE (ASTM D2239) SIDR Plastic Pipe	PE 1404	None	None	None
		PE 2708 PE 3608 PE 4608	SIDR 7 or Lower	Not Threaded	¾" - 2"
		PE 4710	SIDR 9 or Lower	Not Threaded	¾"- 2"
4	PE (ASTM D2737) Plastic Tubing	PE2708 PE 3608 PE 4608	SDR 9 or Lower	Not Threaded	¾" - 2"
		PE 4710	SDR 11 or Lower	Not Threaded	¾"- 2"
5	PE (ASTM D3035) DR-PR Plastic Pipe	PE 1404	None	None	None
		PE 2708 PE 3608 PE 4608	DR 9 or Lower	Not Threaded	¾"- 24"
		PE 4710	DR 11 or Lower	Not Threaded	¾"- 24"
6	PE (ASTM F714) PS/DIPS Plastic Pipe	PE 2708 PE 3608 PE4608	DR9 or Lower	Not Threaded	3" – 54"
		PE47L0	DR 11 or Lower	Not Threaded	3" - 54"
7	PE (AWWA C901) SIDR OD-Controlled IPS Pipe PC 200 Pressure Class	PE 2708 PE 3608	SIDR 7 or Lower	Not Threaded	¾" - 3"
		PE 4710	SIDR 9 or Lower	Not Threaded	¾" - 3"
8	PE(AWWAC901) SDR OD-Controlled IPS Pipe PC 200 Pressure Class	PE 2708 PE 3608	SDR 9 or Lower	NotThreaded	¾"- 3"
		PE 4710	SDR 11 or Lower	Not Threaded	¾" - 3"
9	PE(AWWAC90L)SDR OD-Controlled CTS Pipe PC 200 Pressure Class	PE 2708 PE 3608	SDR 9 or Lower	Not Threaded	¾" - 3"
		PE 4710	SDR 11 or Lower	Not Threaded	¾" - 3"
10	PE-AL-PE (ASTM FL282)	PE-AL-PE	ASTMF1282	Not Threaded	¾" – 2½"
11	PBX (AWWA C904)	PEX 1006	SDR9	Not Threaded	¾" - 3"-

12	PEX-AL-PEX (ASTM FL28L	PEX-AL-PEX	ASTM FL28I	Not Threaded	¾" – 2½"
13	PP (ASTM F2389) IPS	PP-R	Schedule 80	Not Threaded	¾" – 2½"
14	PVC (ASTM DI785)	PVC 1120 PVC 1220 PVC2L20	Schedule 40	Not Threaded	¾" – 4"
			Schedule 80	Threaded	¾" – 2½"
				Not Threaded	¾"- 24"
			Schedule 120	Threaded	¾" – 5"
				Not Threaded	¾" – 12"
		PVC21L6	Schedule 40	Not Threaded	¾" - 3"
			Schedule 80	Threaded	¾" – 1¼"
				Not Threaded	¾" - 8"
			Schedule 120	Threaded	¾" – 1½"
				Not Threaded	¾" – 1"
		PVC 2112	Schedule 40	Not Threaded	¾" - 12"
			Schedule 80	Threaded	¾"- 1"
				Not Threaded	¾" – 4"
			Schedule 120	Threaded	¾" – 1"
				Not Threaded	¾" - 12"
		PVC2II0	Schedule 40	Not Threaded	¾"- 1"
			Schedule 80	Not Threaded	¾" - 2 ½"
			Schedule I20	Not Threaded	¾" – 5"
15	(ASTM D2241) IPS	PVC 1120 PVC 1220 PVC 2120	21 or	Not Threaded	¾" - 36°
		PVC 2126	17 or r	Not Threaded	¾"- 36"
		PVC2112	13.5	Not Threaded	¾" - 6"
		PVC 2110	one for 200 PSI		None
16	(ASTM D2241)		II	Not Threaded	¾" - 2"
17	(AWWA C900)	ASTM D1784 4		Not Threaded	4" - 12"

NOTE: FOR ALL WATER SERVICE PIPING, REFER TO BC-IPC TABLE 605.3A.

605.3 WATER SERVICE PIPING

WATER SERVICE PIPING SHALL BE CERTIFIED TO NSF 61 AND NSF 372 FOR POTABLE WATER AND SHALL CONFORM TO THE STANDARDS LISTED IN BC-IPC-

TABLES 605.3A AND 3B. WATER SERVICE PIPING SHALL HAVE A WORKING PRESSURE RATING OF NOT LESS THAN 200 PSI AT 73.4 DEGREES. WHERE THE WATER SERVICE PRESSURE EXCEEDS 200 PSI, THE PIPING SHALL HAVE A WORKING PRESSURE RATING NOT LESS THAN THE HIGHEST AVAILABLE WATER SERVICE PRESSURE. WATER SERVICE PIPING SHALL TERMINATE AT THE PRESSURE REDUCING VALVES FOR THE DISTRIBUTION PIPING.

605.3.2 FLEXIBLE PIPE

UNDERGROUND ASTM F714 POLYETHYLENE (PE) PLASTIC PIPE WITH THE REQUIRED PRESSURE RATING AND DIMENSION RATIO (DR) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ITS DEFLECTION BY THE EARTHWORK SURROUNDING ITS BURIAL SHALL BE CONTROLLED BY ALL SECTIONS OF ASTM D2321. THE BASIS FOR THE PROPOSED DIMENSION RATIO (DR) FOR UNDERGROUND INSTALLATION SHALL BE INCLUDED IN THE SYSTEM DESIGN DOCUMENTS FOR THE PROJECT.

TABLE 605.4A HW/CW DISTRIBUTION PIPING

WATER PRESSURE RATED FOR NOT LESS THAN 160 PSI AT 73 4^{O}F AND 100 PSI AT 180^{O}F

No.	Material	Standard	Fittings
1	Copper Tube, Type M, L, K	ASTM B88	ASME B16.18 (Cast, Solder Joint) ASME 816.22 (Wrought, Solder Joint) ASME B16.24 (Cast, Flanged) ASME B16.26 (Cast, Flared) ASME B16.50 (Wrought, Braze Joint) ASTM B16.51 (Copper, Press-Connect) ASTM F3226 (Metallic, Press-Connect) IAPMO PS L17 (Copper, Press-Connect) ASSE 1061 (Copper, Push-Fit)
2	CPVC Plastic Pipe, Schedule 40	ASTM F44I	ASTM F438 (Socket) ASTM FL970 (Special Engineered)

3	CPVC Plastic Pipe, Schedule 80	ASTMF441	ASTM F437 (Threaded), ASTM F439 (Threaded Socket) ASTM FL970 (Special Engineered)
4	CPVC Plastic Pipe (SOR-PR)	ASTM F442	ASTM F442 ASTM F1970 (Special Engineered)
5	CPVC Plastic HW/CW Distribution Systems	ASTM D2846	ASTM D2846 ASSE I 06 I (Push-Fit) ASTM FL970 (Special Engineered)
6	CPVC-AL-CPVC Composite Pressure Tubing	ASTM F2855	ASTMF2855
7	Galvanized Steel Pipe	ASTM A53	ASME 1316.3 (Malleable, Threaded) ASME 1316.4 (Gray Iron, Threaded) ASME B16.5 (Cast, Forged, Flanged)
8	PE-RT Plastic HW/CW Tubing and Distribution Systems	ASTM F2769	ASTM F1807 (Crimped Metal Insert) ASTM 1'2159 (Crimped Plastic Insert) ASTM F2735 (Plastic Insert) ASSE L 061 (Push-Fit)
9	PE-AL-PE Composite Pressure Pipe	ASTM F1282	ASTM FL 974 (Metal Insert), Connectors Marked for F1282 or F1281/F 1282
10	PEX Crosslinked Plastic Tubing	ASTM F876	ASTM F1807 (Crimped Metal Insert) ASTM FL865 (Cold Expansion Insert) ASTM FL 960 (Cold Expansion) ASTM FL961 (Metal Cold Flare Compression) ASTM F2080 (Cold Expansion) ASTM F2 L 59 (Plastic Insert) ASTM F2434 (Metal Insert) ASTM F2735 (Plastic Insert) ASSE I061 (Push-Lit)
11	PBX Crosslinked HW/CW Distribution Systems	ASTM F877	Same AS ASTM F876
12	PEX-AL-PEX Crosslinked Pressure Pipe	ASTM FL28I	ASTM F1974 (Metal Insert), Connectors Marked for FL281 or FL281/FL282

NOTE: FOR PLASTIC HW/CW PIPING, REFER TO BC-IPC TABLE 605.4B FOR THE COMPOSITION, DIMENSIONS, JOINTS, AND PIPE SIZES.

TABLE 605.4B REQUIREMENTS FOR PLASTIC HW/CW DISTRIBUTION PIPING

MUST BE WATER PRESSURE RATED FOR NOT LESS THAN 160 PSI AT 73 4^{O}F AND 100 PSI AT 180 ^{O}F)

No.	Material	Composition	Dimensions	Joints	Pipe Sizes
1	CPVC (ASTM F44 L)	CPVC4120	Schedule 40	Not Threaded	½" – 1"
			Schedule 80	Not Threaded	½" – 2½"
				Threaded	½"
2	CPVC (ASTM F442)	CPVC4120	SDR 11	Not Threaded	½" – 12"
3	CPVC (ASTM D2846)	CPVC 4120	SDR 11	Not Threaded	½" – 2"
4	CPVC-AL-CPVC (ASTM F2855)	CPVC-AL-CPVC	NTS	Not Threaded	½" – 1"
5	PE-RT (ASTM F2769)	PE-RT	SDR 9	Not Threaded	½" – 6"
6	PE-AL-PE (ASTM F1282)	PE-AL-PE	Outer Diameter	Not Threaded	½" – 2½"
7	PEX (ASTM F876)	PEX	SDR 9	Not Threaded	½" – 6"
8	PEX (ASTM F877)	PEX	SDR 9	Not Threaded	½" – 6"
9	PEX-AL-PEX (ASTM F1281)	PEX-AL-PEX	Outer Diameter	Not Threaded	½" – 2½"

NOTE: FOR ALL HW/CW DISTRIBUTION PIPING, REFER TO BC-IPC-TABLE 405.4A

605.4 HW/CW DISTRIBUTION PIPING

WATER DISTRIBUTION PIPING SHALL BE CERTIFIED TO NSF 61 AND NSF 372 FOR POTABLE WATER AND SHALL CONFORM TO THE STANDARDS LISTED IN TABLES BC-IPC-TABLES 605.4A AND 4B. HW/CW DISTRIBUTION PIPING SHALL HAVE A PRESSURE/TEMPERATURE RATINGS NOT LESS THAN 160 PSI AT 73.4^{O} F AND 100 PSI AT 180 ^{O} F.

605.4.1 MINIMUM SIZE WATER SUPPLY PIPING FOR BATHROOM GROUPS

REFER TO SECTIONS 605.4.1.1 THROUGH 605.4.1.4

605.4.1.1 GENERAL

THE MINIMUM SIZE OF THE HOT WATER AND COLD WATER DISTRIBUTION PIPING SUPPLYING BATHROOM GROUPS THAT INCLUDE A SHOWER OR COMBINATION BATH/SHOWER SHALL BE ¾" MINIMUM PIPE SIZE IF THE GROUP OF FIXTURES INCLUDES A WATER CLOSET AND THE WATER SUPPLY PRESSURE IN THE WATER DISTRIBUTION PIPING SUPPLYING THE GROUP OF FIXTURES IS LESS THAN 35 PSIG.

605.4.1.2 FIXTURE SUPPLY BRANCHES

THE FIXTURE SUPPLY BRANCHES FOR THE INDIVIDUAL FIXTURES, SUCH AS THE BATHTUB, SHOWER, COMBINATION BATH/SHOWER, WATER CLOSET, AND LAVATORY, SHALL EACH CONNECT TO THE ¾" MINIMUM DISTRIBUTION PIPING.

605.5 **PIPE FITTINGS**

PIPE FITTINGS SHALL BE APPROVED FOR INSTALLATION WITH THE PIPING MATERIAL AND SHALL BE AS INDICATED IN BC-IPC-TABLE 605.3A FOR WATER SERVICE PIPING AND IN BC-IPC-TABLE 605.4A FOR HW/CW DISTRIBUTION PIPING. REFER TO SECTIONS 605.5.1, 605.5.1.1, AND 605.5.1.2 FOR INSTALLATION REQUIREMENTS. PIPE FITTINGS FOR POTABLE WATER PIPING, WHICH IS REQUIRED TO BE "LEAD FREE," SHALL BE CERTIFIED FOR COMPLIANCE TO NSF 61.

605.12.3 SOLDER JOINTS

SOLDER AND FLUX JOINING PIPE OR FITTINGS INTENDED TO SUPPLY DRINKING WATER SHALL CONFORM TO NSF 61.

605.13.7 PUSH-FIT FITTINGS

PUSH-FIT FITTINGS FOR COPPER TUBING SHALL CONFORM TO SECTION 605.25 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

605.14.4 PUSH-FIT FITTINGS

PUSH-FIT FITTINGS FOR CPVC PLASTIC TUBING SHALL CONFORM TO SECTION 605.25 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

605.16.3 PUSH-FIT FITTINGS

PUSH-FIT FITTINGS FOR PEX PLASTIC TUBING SHALL CONFORM TO SECTION 605.25 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

605.24 PE-RT PLASTIC

JOINTS BETWEEN POLYETHYLENE OF RAISED TEMPERATURE (PE-RT) PLASTIC TUBING AND FITTINGS SHALL BE IN ACCORDANCE WITH SECTIONS 605.24.1 AND 605.24.2.

605.24.2 PUSH-FIT JOINTS

PUSH-FIT FITTINGS FOR PE-RT PLASTIC TUBING SHALL CONFORM TO SECTION 605.25 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PE-RT TUBING SHALL BE FACTORY MARKED WITH THE APPLICABLE STANDARDS FOR THE FITTINGS THAT THE TUBING MANUFACTURER SPECIFIES FOR USE WITH THE TUBING.

605.25 PUSH-FIT FITTINGS

PUSH-FIT FITTINGS WITH A NOMINAL SIZE NOT TO EXCEED 2" CTS SHALL COMPLY WITH ASSE 1061 AND BE RATED FOR NOT LESS THAN 100 PSI AT 180ºF AND NFS 61. PUSH-FIT FITTINGS FOR WATER SERVICE PIPING SHALL ALSO BE RATED FOR NOT LESS THAN 200 PSI AT 73.4º F. PUSH-FIT FITTINGS FOR HW/CW DISTRIBUTION PIPING SHALL ALSO BE RATED FOR NOT LESS THAN 160 PSI AT 73.4º F. PUSH-FIT FITTINGS FOR COPPER TUBING SHALL ALSO BE RATED FOR 200 PSI MAX. AND 200º F MAX. PUSH-FIT FITTINGS FOR PLASTIC TUBING SHALL ALSO BE RATED FOR THE MAXIMUM WORKING PRESSURE AND TEMPERATURE OF THE PLASTIC TUBING THEY ARE CONNECTING. PUSH-FIT FITTINGS MAY BE USED FOR JOINING THE FOLLOWING TUBING: (A) ASTM B88 HARD DRAWN TYPE K, L, AND M COPPER TUBING, (B) ASTM D2846 CPVC TUBING, (C) ASTM F876 PEX TUBING, (D) ASTM F2769 PE-RT TUBING, AND (E) ASTM D2737 HDPE TUBING. PUSH-FIT FITTINGS MAY BE USED FOR PRESSURE/TEMPERATURE RELIEF VALVE

DRAIN PIPING IF THEY ARE RATED FOR EXCESSIVE CONDITIONS OF 210º F AND 150 PSI PER ASME A112.4.1.

606.1 WATER SUPPLY SHUTOFF VALVES

SHUTOFF VALVES SHALL BE PROVIDED IN THE PLUMBING WATER SUPPLY PIPING AS INDICATED IN SECTIONS 606.1 THROUGH 606.1.6.

606.1.1 WATER SERVICE VALVES

THE PUBLIC WATER SERVICE PIPING TO A DWELLING UNIT OR BUILDING SHALL INCLUDE AN UNDERGROUND SHUTOFF VALVE NEAR ITS CONNECTION TO THE PUBLIC WATER SERVICE. A SHUTOFF VALVE SHALL BE PROVIDED WITHIN THE DWELLING UNIT OR BUILDING WITHIN 3 TO 5 FEET FROM THE WATER SERVICE POINT OF ENTRY.

606.1.2 UNIT SHUTOFF VALVES

UNIT SHUTOFF VALVES SHALL BE PROVIDED IN THE HW/CW DISTRIBUTION PIPING SERVING THE TENANT UNITS IN HOTELS, MOTELS, AND BOARDING HOUSES, AND SERVING THE TENANT UNITS IN OFFICE BUILDINGS TO PERMIT SERVICING THE PLUMBING IN ONE TENANT UNIT WITHOUT SHUTTING DOWN THE HW/CW DISTRIBUTION PIPING FOR OTHER PORTIONS OF THE BUILDING. UNIT SHUTOFF VALVES SHALL BE LOCATED AT THEIR POINT OF ENTRY TO THE TENANT UNIT.

606.1.3 WATER SUPPLY RISER SHUTOFF VALVES

WATER SUPPLY RISERS SERVING INDEPENDENT TENANT UNITS ON MULTIPLE FLOORS OF A BUILDING SHALL HAVE SHUTOFF VALVES IN THE BOTTOM OF THE UP-FEED RISERS AND IN THE TOP OF DOWN-FEED RISERS.

606.1.4 PLUMBING FIXTURE SHUTOFF VALVES

IN ONE AND TWO-FAMILY DWELLINGS, SHUTOFF VALVES SHALL BE PROVIDED FOR INDIVIDUAL PLUMBING FIXTURES. FIXTURE SHUTOFF VALVES SHALL NOT BE REQUIRED IN INDIVIDUAL TENANT UNITS IN HOTELS, MOTELS, BOARDING HOUSES, AND SIMILAR OCCUPANCIES WHERE UNIT SHUTOFF VALVES ARE PROVIDED.

606.1.5 EQUIPMENT AND APPLIANCE SHUTOFF VALVES

INDIVIDUAL SHUTOFF VALVES SHALL BE PROVIDED IN THE WATER SUPPLY TO WATER HEATERS, DISHWASHERS, CLOTHES WASHERS, HUMIDIFIERS, AND OTHER EQUIPMENT AND APPLIANCES.

606.1.6 OUTDOOR WATER OUTLET SHUTOFF VALVES

THE WATER SUPPLY PIPING TO HOSE BIBBS, SILLCOCKS, OUTDOOR DRINKING FOUNTAINS, DECORATIVE FOUNTAINS, AND UNDERGROUND WATER SYSTEMS SHALL BE PROVIDED WITH INDIVIDUAL SHUTOFF VALVES WITHIN THE DWELLING UNIT OF BUILDING THAT THEY ARE SUPPLIED FROM.

606.3 ACCESS TO SHUTOFF VALVES

WATER SUPPLY SHUTOFF VALVES SHALL BE ACCESSIBLE FOR OPERATION, MAINTENANCE, AND REPLACEMENT.

606.4 VALVE IDENTIFICATION

AS REQUIRED BY ADMINISTRATIVE AUTHORITY, SERVICE AND HOSE BIBB VALVES SHALL BE IDENTIFIED. OTHER VALVES INSTALLED IN LOCATIONS THAT ARE NOT ADJACENT TO THE FIXTURE OR APPLIANCE SHALL BE IDENTIFIED, INDICATING THE FIXTURE OR APPLIANCE SERVED.

607.1 GENERAL

HOT WATER SHALL BE SUPPLIED WHERE REQUIRED FOR BATHING, WASHING, CULINARY PURPOSES, CLEANING, LAUNDRY, AND MAINTENANCE. THE HOT WATER TEMPERATURE CONTROLS SHALL COMPLY WITH SECTIONS 607.1.1 THROUGH 607.1.4.

607.1.3 BATHTUBS AND WHIRLPOOL BATHTUBS

IF NOT SUPPLIED BY ASSE 1016 SHOWER AND BATH/SHOWER VALVES, BATHTUBS AND WHIRLPOOL BATHTUBS CAN BE SUPPLIED WITH TEMPERED HOT WATER FROM AN ASSE 1070 TEMPERATURE LIMITING DEVICE. THE TEMPERATURE SETTING SHALL BE ADJUSTED AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WHERE PROVIDED, MAXIMUM SETTING STOPS SHALL BE SET.

607.1.4 *(FROM 2015 NSPC 10.15.6 (J))* **PUBLIC HAND WASHING**

TEMPERED WATER FOR PUBLIC HAND WASHING FACILITIES SHALL BE PROVIDED BY A TEMPERATURE LIMITING DEVICE COMPLYING WITH ASSE 1070. THE TEMPERATURE SETTING SHALL BE ADJUSTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WHERE PROVIDED, MAXIMUM SETTING STOPS SHALL BE SET TO NOT ALLOW THE WATER TEMPERATURE TO EXCEED 110º F.

607.1.5 GANG SHOWERS, GANG LAVATORIES, AND SITZ BATHS

THE ONE-PIPE TEMPERED WATER SUPPLY TO GANG SHOWERS, GANG LAVATORIES, AND SITZ BATHS SHALL BE CONTROLLED BY AN ASSE 1069

AUTOMATIC TEMPERATURE CONTROL MIXING VALVE. THE TEMPERATURE SHALL BE ADJUSTED AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE TEMPERATURE SHALL NOT EXCEED 120º F.

607.1.6 EMERGENCY SHOWERS AND EYEWASH STATIONS

THE WATER SUPPLY TEMPERATURE SHALL BE CONTROLLED BY AN ASSE 1071 TEMPERATURE ACTUATED MIXING VALVE AS REQUIRED BY SECTION 411.3. THE TEMPERATURE SETTING SHALL BE ADJUSTED AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE TEMPERATURE SHALL NOT EXCEED 100º F.

607.3 THERMAL EXPANSION CONTROL

A THERMAL EXPANSION TANK SHALL BE PROVIDED WHERE A CLOSED SYSTEM IS CREATED BETWEEN HOT WATER HEATING EQUIPMENT AND ITS INCOMING WATER SUPPLY BY A CHECK VALVE, A BACKFLOW PREVENTER, OR A WATER PRESSURE REGULATOR (WITH OR WITHOUT AN INTERNAL THERMAL EXPANSION BYPASS). EXCEPTIONS INCLUDE DEMAND-TYPE TANKLESS WATER HEATERS, INSTANTANEOUS WATER HEATERS, AND WELL SYSTEMS WITH A PRESSURE TANK.

607.3.1 THERMAL EXPANSION TANKS

THERMAL EXPANSION TANKS SHALL BE THE ADJUSTABLE PRE CHARGED TYPE FOR POTABLE WATER, WITH A FLEXIBLE BLADDER OR BELLOWS, RATED FOR NOT LESS THAN 125 PSIG AND 200º F, AND SIZED TO LIMIT THE WATER SYSTEM PRESSURE TO NO HIGHER THAN 100 PSIG. TANKS SHALL BE SIZED, INSTALLED,

AND ADJUSTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THEY SHALL BE CONNECTED TO THE COLD-WATER SUPPLY PIPING FOR THE HOT WATER HEATER EQUIPMENT BETWEEN THE HEATING EQUIPMENT AND ITS COLD-WATER SHUTOFF VALVE.

607.6 PIPING FOR ASSE 1017 TEMPERATURE MIXING VALVES WITH RECIRCULATED HOT OR TEMPERED WATER

IN ADDITION TO THE CHECK VALVES REQUIRED BY SECTION 607.7, CHECK VALVES SHALL BE INSTALLED IN THE RECIRCULATED RETURN TO THE COLD WATER INLET OF THE ASSE 1017 AND IN THE COLD WATER SUPPLY TO THEIR WATER HEATER. MANUAL BALANCING VALVES SHALL BE INSTALLED IN THE RECIRCULATED RETURN TO THE WATER HEATER AND IN THE RECIRCULATED RETURN TO THE ASSE 1017 MIXING VALVE.

Table 608.1

Device	**Degree of Hazard**	**Application**	**Applicable Standards**
Backflow preventer plumbing devices:			
Backflow Devices for Hand-Held Showers	Low Hazard	Backpressure or Backsiphonage	ASSE 1014
Dual Check Backflow Preventer Wall Hydrants-Freeze Resistant, Low Head	High or Low Hazard	Backpressure or Backsiphonage, Type A or B Drainage.	ASSE 1053

Freeze Resistant Sanitary Yard Hydrants,	High or Low Hazard.	Backpressure and Backsiphonage for Types 1, 2, and Backflow Prevention for Types 3, 4, and 5.	ASSE 1057

608.15.2.1 RELIEF PORT PIPING

THE INDIRECT WASTE RECEPTOR AND DRAINAGE PIPING SHALL BE SIZED TO DRAIN THE MAXIMUM DISCHARGE FLOW RATE FROM THE RELIEF PORT AS PUBLISHED BY THE BACKFLOW PREVENTER MANUFACTURER.

608.17.2 CONNECTIONS TO BOILERS

THE POTABLE SUPPLY TO THE BOILER SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER WITH AN INTERMEDIATE ATMOSPHERIC VENT COMPLYING WITH ASSE 1012, ASSE 1081, OR CSA B64.3.

608.17.4 CONNECTIONS TO AUTOMATIC FIRE SPRINKLER SYSTEMS AND STANDPIPE SYSTEMS

THE POTABLE WATER SUPPLY TO AUTOMATIC FIRE SPRINKLERS SYSTEMS AND STANDPIPE SYSTEMS SHALL BE PROTECTED FROM BACK PRESSURE AND BACKSIPHONAGE BY ONE OF THE FOLLOWING TESTABLE FIRE PROTECTION BACKFLOW PREVENTION ASSEMBLIES THAT HAVE THEIR REQUIRED OPERATING WATER PRESSURE. BACKFLOW FROM LOW HAZARDS SHALL BE PREVENTED BY AN ASSE 1015 (DCF) DOUBLE CHECK OR AN ASSE 1048 (DCDA) OR (DCDA-II) DOUBLE CHECK DETECTOR. BACKFLOW FROM HIGH HAZARDS SHALL BE

PREVENTED BY AN ASSE 1013 REDUCED PRESSURE OR ASSE 1047 REDUCED PRESSURE DETECTOR.

EXCEPTIONS:

1. BACKFLOW PREVENTION IS NOT REQUIRED FOR NFPA 13D MULTIPURPOSE PIPING SYSTEMS THAT COMPLY WITH SECTION 614.8 FOR THE POTABLE WATER SUPPLY TO THE RESIDENTIAL FIRE SPRINKLERS AND THE COLD-WATER SUPPLY TO THE PLUMBING FIXTURES.
2. IN STAND-ALONE RESIDENTIAL FIRE SPRINKLER SYSTEMS THAT (A) COMPLY WITH NFPA 13D OR NFPA 13R, (B) DO NOT SUPPLY PLUMBING FIXTURES, AND (C) DO NOT INCLUDE A FIRE DEPARTMENT CONNECTION, AN ASSE 1024 (DC) BACKFLOW PREVENTER SHALL BE PERMITTED IF THERE IS SUFFICIENT WATER PRESSURE. IF THERE IS INSUFFICIENT PRESSURE IN THE WATER SUPPLY FOR AN ASSE 1024 (DC) BACKFLOW PREVENTER, THE AHJ MAY PERMIT THE USE OF A SINGLE CHECK VALVE IF ALL OF THE REQUIREMENTS OF SECTION 608.17.4.5 ARE MET AND APPROVED BY THE AHJ.
3. ASSE 1024 (DC) BACKFLOW PREVENTERS SHALL BE PERMITTED IN LIMITED AREA FIRE SPRINKLER SYSTEMS THAT (A) COMPLY WITH NFPA 13, AND (B) DO NOT HAVE A FIRE DEPARTMENT CONNECTION.

608.17.4.1 WITH A FIRE DEPARTMENT CONNECTION

WHERE A FIRE PROTECTION SYSTEM WITH A POTABLE WATER SUPPLY INCLUDES A FIRE DEPARTMENT CONNECTION, THE BACKFLOW PREVENTION FOR THE POTABLE WATER SUPPLY SHALL BE REDUCED PRESSURE COMPLYING

WITH ASSE 1013 OR ASSE 1047 FOR HIGH HAZARDS UNLESS THE AHJ DETERMINES THAT THE POTENTIAL BACKFLOW IS LOW HAZARD AND APPROVES THE USE OF A LOW HAZARD ASSE 1015 OR ASSE 1048 DOUBLE CHECK VALVE ASSEMBLY.

608.17.4.2 WITH ADDITIVES OR A NON-POTABLE SECONDARY SOURCE

WHERE FIRE PROTECTION SYSTEMS WITH A POTABLE WATER SUPPLY CONTAIN CHEMICAL ADDITIVES OR ANTIFREEZE, OR WHERE THEY ARE CONNECTED TO A NON-POTABLE SECONDARY WATER SUPPLY, THEIR BACKFLOW PREVENTION FOR THE POTABLE WATER SUPPLY SHALL BE REDUCED PRESSURE COMPLYING WITH ASSE 1013 OR ASSE 1047 FOR HIGH HAZARDS UNLESS THE AHJ DETERMINES THAT THE POTENTIAL BACKFLOW IS A LOW HAZARD AND APPROVES THE USE OF A LOW HAZARD ASSE 1015 OR ASSE 1048 DOUBLE CHECK VALVE ASSEMBLY.

608.17.4.3 INSUFFICIENT WATER PRESSURE FOR BACKFLOW PREVENTERS FOR AN NFPA 13D ONE OR TWO FAMILY RESIDENTIAL STAND-ALONE FIRE SPRINKLER SYSTEM

IF THE MINIMUM AVAILABLE WATER SUPPLY PRESSURE TO A NFPA 13D STAND-ALONE RESIDENTIAL FIRE SPRINKLER SYSTEM IS INSUFFICIENT TO OVERCOME THE RATED PRESSURE DROP FOR THE REQUIRED BACKFLOW PREVENTER IN SECTION 608.17.4, THE AHJ MAY PERMIT THE INSTALLATION OF A SINGLE CHECK VALVE FOR BACKFLOW PROTECTION IF ALL OF THE FOLLOWING CONDITIONS ARE MET:

1) THE FIRE SPRINKLER SYSTEM IS AN NFPA 13D SYSTEM THAT IS NOT MULTIPURPOSE IN SECTION 614.

2) THE FIRE SPRINKLER SYSTEM DOES NOT INCLUDE A FIRE DEPARTMENT CONNECTION.

3) ALL PIPING IN THE NFPA 13D SYSTEM, INCLUDING THE SPRINKLERS, IS "LEAD FREE" AND APPROVED FOR POTABLE WATER IN THIS CODE.

4) THE WATER SUPPLY PIPING TO THE NFPA 13D SYSTEM IS NOT LESS THAN 1-1/2" PIPE SIZE.

5) THE WATER METER IS NOT LESS THAN 1" PIPE SIZE.

6) THE SHUTOFF VALVE FOR THE NFPA 13D SYSTEM IS A GATE VALVE, A FULL-PORTED BALL VALVE, OR OTHER FULL-WAY VALVE.

7) THE NFPA 13D SYSTEM IS FILLED WITH POTABLE WATER AND CONTAINS NO ANTIFREEZE OR OTHER CHEMICAL ADDITIVES.

8) THE CHECK VALVE IS RESILIENTLY SEATED AND IS APPROVED BY THE AHJ.

9) PRESSURE GAUGES ARE INSTALLED ON THE INLET AND OUTLET SIDES OF THE CHECK VALVE TO INDICATE LEAKAGE IN THE NFPA 13D SYSTEM OR BACKFLOW FROM THE NFPA 13D SYSTEM. THE GAUGES SHALL HAVE +/- 1% FULL-SCALE ACCURACY. THE SYSTEM SHUTOFF VALVE SHALL BE ON THE INLET SIDE OF THE CHECK VALVE AND SHALL BE LOCKED OPEN.

608.17.7 CHEMICAL DISPENSERS

WHERE CHEMICAL DISPENSERS ARE CONNECTED TO POTABLE WATER PIPING IN A PLUMBING SYSTEM, HIGH HAZARD BACKFLOW PREVENTION SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 608.17.7.1 OR 608.17.7.2. THE CHEMICAL DISPENSERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH

THE MANUFACTURER'S INSTRUCTIONS, INCLUDING THEIR ELEVATION RELATIVE TO THEIR CONNECTION TO THE POTABLE WATER PIPING.

608.17.7.1 CHEMICAL DISPENSER ASSE CERTIFIED

CHEMICAL DISPENSERS THAT INCLUDE THE REQUIRED BACKFLOW PREVENTION AND ARE CERTIFIED FOR COMPLIANCE WITH ASSE 1055 MAY BE DIRECT-CONNECTED TO A POTABLE WATER SUPPLY. IF THEY ARE CONNECTED TO A SERVICE OR MOP SINK FAUCET THAT INCLUDES AN INTEGRAL ATMOSPHERIC VACUUM BREAKER, THE OUTLET OF THE FAUCET SHALL HAVE A PRESSURE BLEED DEVICE COMPLYING WITH IAPMO PS-104-2019 ATTACHED TO PREVENT BACKPRESSURE ON THE VACUUM BREAKER.

608.17.7.2 CHEMICAL DISPENSERS NOT ASSE CERTIFIED

WHERE CHEMICAL DISPENSERS ARE NOT CERTIFIED FOR COMPLIANCE WITH ASSE 1055, THEIR WATER SUPPLY SHALL BE PROTECTED FROM BACKPRESSURE AND BACKSIPHONAGE BY THE INSTALLATION OF A BACKFLOW PREVENTER COMPLYING WITH SECTION 608.14.1 (AIR GAP), SECTION 608.14.2 (REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY), OR SECTION 608.14.5 (PRESSURE VACUUM BREAKER ASSEMBLY). E-GAP EDUCTORS ARE NOT AIR GAPS. WHERE CHEMICAL DISPENSERS THAT ARE NOT ASSE 1055 CERTIFIED ARE CONNECTED TO A SERVICE OR MOP SINK FAUCET THAT INCLUDES AN INTEGRAL ATMOSPHERIC VACUUM BREAKER, THE OUTLET OF THE FAUCET SHALL HAVE A PRESSURE BLEED DEVICE COMPLYING WITH IAPMO PS-104-2019 ATTACHED TO PREVENT BACKPRESSURE ON THE VACUUM BREAKER.

609.1.1 INSTITUTIONAL GROUP 1

GROUP I-1 INCLUDES 24-HOUR FACILITIES THAT PROVIDE CUSTODIAL CARE INCLUDING ASSISTED LIVING FACILITIES AND GROUP HOMES, BUT DO NOT PROVIDE MEDICAL CARE. GROUP I-2 INCLUDES 24-HOUR MEDICAL CARE FACILITIES, INCLUDING HOSPITALS AND NURSING HOMES.

611.2.1 WHOLE HOUSE REVERSE OSMOSIS SYSTEMS THAT DISCHARGE TO A PRIVATE SEPTIC DISPOSAL SYSTEM SHALL BE APPROVED BY THE ENVIRONMENTAL PROTECTION SUSTAINABILITY AGENCY. PRIOR APPROVAL IS REQUIRED BEFORE CONNECTING DISCHARGE TO A PRIVATE SEPTIC SYSTEM.

612.1 SOLAR SYSTEMS

THE CONSTRUCTION, INSTALLATION, ALTERATIONS AND REPAIR OF SYSTEMS, EQUIPMENT AND APPLIANCES INTENDED TO UTILIZE SOLAR ENERGY FOR SPACE HEATING OR COOLING, DOMESTIC HOT WATER HEATING, SWIMMING POOL HEATING OR PROCESS HEATING SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE AND THE MANUFACTURE'S INSTRUCTIONS.

SECTION 614 NFPA 13D MULTIPURPOSE PIPING FOR FIRE SPRINKLER SYSTEMS IN ONE AND TWO-FAMILY DWELLINGS

614.1 WHERE PERMITTED

NFPA 13D MULTIPURPOSE RESIDENTIAL FIRE SPRINKLER SYSTEMS ARE PERMITTED IN BALTIMORE COUNTY.

614.2 "LEAD-FREE" PIPING REQUIREMENTS

A. NFPA 13D MULTIPURPOSE PIPING SYSTEMS SHALL COMPLY WITH THE "LEAD-FREE" REQUIREMENTS OF THIS CODE IF THE PIPING, INCLUDING

PARALLEL LOOPED BRANCHES, SUPPLIES ONE OR MORE END-USE DEVICES OR EQUIPMENT THAT ARE REQUIRED TO BE "LEAD-FREE".

IF ONE OR MORE FIRE SPRINKLERS IN A MULTIPURPOSE SYSTEM ARE LOCATED IN PIPING THAT IS REQUIRED TO BE "LEAD-FREE", ALL OF THE FIRE SPRINKLERS IN THAT SYSTEM SHALL BE "LEAD-FREE".

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

TABLE 605.5, **SECTION 605.12, SECTIONS 605.12.1 - 605.12.2, SECTION 605.12.4-605.12.5, SECTION** 606.2, SECTION **607.2.1.1**, SECTION **607.2.1.2,** SECTION **608.18, SECTIONS 608.18.1 - 608.18.8,** SECTION **609.2.1**

CHAPTER 7—SANITARY DRAINAGE

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

701.2 CONNECTION TO SEWER REQUIRED

SANITARY DRAINAGE PIPING FROM PLUMBING FIXTURES IN BUILDINGS SHALL BE CONNECTED TO A PUBLIC SEWER WHERE AVAILABLE. A PUBLIC SEWER SHALL BE CONSIDERED AS AVAILABLE IF IT IS WITHIN 500 FEET OF ANY PROPERTY LINE OR OTHER REASONABLE DISTANCE AS DETERMINED BY THE AHJ.

703.6 COMBINED SANITARY AND STORM PUBLIC SEWER

BALTIMORE COUNTY DOES NOT PERMIT OR HAVE COMBINED SEWERS FOR SANITARY DRAINAGE AND STORM WATER.

708.1.8 INSTALLATION ARRANGEMENT

THE INSTALLATION ARRANGEMENT OF A CLEANOUT SHALL ENABLE CLEANING OF DRAIN PIPING ONLY IN THE DIRECTION OF FLOW. TWIN CLEANOUTS AND TWO-WAY CLEANOUTS ARE PROHIBITED UNLESS USED ON A DEDICATED GREASE LINE.

EXCEPTIONS:

1. TEST TEES SERVING CLEANOUTS.

708.1.12 PROPERTY LINE CLEANOUT

CLEANOUTS SHALL BE PROVIDED AT THE PROPERTY LINE IN BUILDING SEWERS UP TO 6 INCHES IN SIZE AND BROUGHT TO THE SURFACE FOR USE BY THE BALTIMORE COUNTY BUREAU OF UTILITIES. CLEANOUTS AT THE PROPERTY LINE SHALL BE CAPPED AND BE ABLE TO BE LOCATED WITH A METAL DETECTING DEVICE. PROPERTY LINE CLEANOUTS THAT WERE INSTALLED PER THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DETAIL SHALL REMAIN IN PLACE OR SHALL BE REPLACED AS PER THE DEPARTMENT OF PUBLIC WORKS DETAIL DESIGN. THE RESPONSIBILITY FOR THE PROPER MAINTENANCE AND PERFORMANCE OF THE PROPERTY LINE CLEANOUT SHALL BE THAT OF THE PROPERTY OWNER.

708.1.12.1 PROPERTY LINE CLEANOUT CONNECTION TO PUBLIC SEWER

EXISTING 6-INCH TERRACOTTA CONNECTIONS SHALL BE MADE USING AN INDUSTRY PRACTICE OF A 6 X 4 DONUT OR 6 X 4 FERNCO. EXTENSION INTO THE 6-INCH TERRACOTTA SHALL BE A MAXIMUM OF ONE FOOT. EXTENSION INTO THE 6-INCH TERRACOTTA SHALL HAVE NO TURNS OR OFFSETS BETWEEN THE PUBLIC SEWER CONNECTION AND THE CLEANOUT CONNECTION.

708.1.13 MANHOLES AT THE PROPERTY LINE

MANHOLES SHALL BE PROVIDED AT THE PROPERTY LINE IN BUILDING SEWERS 8 INCH IN SIZE AND LARGER FOR USE BY THE BALTIMORE COUNTY BUREAU OF UTILITIES. MANHOLES SHALL BE PROVIDED IN ACCORDANCE WITH THE DEPARTMENT OF PUBLIC WORKS STANDARD DETAIL. THE RESPONSIBILITY FOR THE PROPER MAINTENANCE AND PERFORMANCE OF THE MANHOLE AT THE PROPERTY LINE SHALL BE THAT OF THE PROPERTY OWNER.

710.3 BRANCH DRAINS

DRAIN PIPING SERVING A WATER CLOSET SHALL NOT BE LESS THAN 3-INCH PIPE SIZE. BRANCH FIXTURE DRAINS CONNECTED TO DRAIN STACKS SHALL BE SIZED ACCORDING TO TABLE 710.1 (2). BRANCH DRAINS CONNECTED TO BUILDING DRAINS SHALL BE SIZED ACCORDING TO TABLE 710.1(1).

710.4 BUILDING DRAINS

BUILDING DRAINS SHALL NOT BE LESS THAN 4-INCH PIPE SIZE FROM THEIR CONNECTION TO THE BUILDING SEWER TO THEIR FIRST CONNECTION OF A DRAIN STACK OR BRANCH DRAIN, EITHER OF WHICH DRAINS TWO OR MORE FIXTURES.

710.5 BUILDING SEWERS

BUILDING SEWERS SHALL NOT BE SMALLER THAN THEIR BUILDING DRAIN AND SHALL NOT BE LESS THAN 4-INCH PIPE SIZE.

716.7 POST-INSTALLATION INSPECTION

THE COMPLETED REPLACEMENT PIPING SECTION SHALL BE INSPECTED INTERNALLY BY A RECORDED VIDEO CAMERA SURVEY. THE VIDEO SURVEY SHALL BE REVIEWED AND APPROVED BY THE CODE OFFICIAL.

719.1 GENERAL

AIR PRESSURE IS CREATED IN DRAIN PIPING BY THE DRAINAGE FROM SUDS-PRODUCING FIXTURES. THE FLOW IN DRAIN STACKS THAT ARE 50-FEET OR MORE IN HEIGHT COMPRESSES THE SUDS AT HORIZONTAL OFFSETS OR THE BASE OF DRAIN STACKS. THE PRESSURE DROP THROUGH THE COMPRESSED SUDS CREATES BACKPRESSURE IN THE AIR FLOW IN THE DRAIN STACK. THE BACKPRESSURE CAN BLOWOUT THE TRAPS OF CONNECTED FIXTURES. FIXTURES SHALL NOT BE DRAINED INTO PIPING SUBJECT TO SUDS PRESSURE UNLESS THEIR BRANCH DRAIN PIPING HAS AIR PRESSURE RELIEF PIPING. ALSO, SEPARATE DRAIN STACKS WITH NO MORE THAN 30- OR 40-FEET VERTICAL HEIGHT CAN BE PROVIDED FOR THE DRAINAGE ON THE LOWER FLOORS OF A BUILDING THAT ARE SUBJECT TO SUDS PRESSURE FROM THE UPPER FLOORS.

EXCEPTION:

PROVISIONS FOR SUDS PRESSURE SHALL NOT BE REQUIRED IN ONE AND TWO-FAMILY DWELLINGS.

719.2 SUDS-PRODUCING FIXTURES

SUDS-PRODUCING FIXTURES INCLUDE CLOTHES WASHERS, DISHWASHERS, KITCHEN SINKS, AND LAUNDRY SINKS.

719.3 LOCATIONS OF SUDS PRESSURE IN DRAIN PIPING

THE POSSIBLE LOCATIONS OF SUDS PRESSURE IN DRAIN PIPING THAT HAS VERTICAL DROPS OF 50-FEET OR MORE ARE LISTED BELOW IN SECTIONS 717.3.1, 717.3.2, AND 717.3.3. THE SUDS PRESSURE IS WITHIN EITHER 40 PIPE DIAMETERS (40D) OR 10 PIPE DIAMETERS (10D) AS INDICATED FROM THE LISTED CHANGES IN DIRECTION OF THE DRAIN PIPING.

719.3.1 IN VERTICAL HEIGHTS OF 40 PIPE SIZES (40D)

A. IN A DRAIN STACK ABOVE A HORIZONTAL OFFSET.

B. IN A DRAIN STACK ABOVE ITS BASE.

C. IN A VENT STACK ABOVE A HORIZONTAL OFFSET IN A DRAIN STACK.

D. IN A VENT STACK ABOVE THE BASE OF A DRAIN STACK.

719.3.2 IN HORIZONTAL LENGTHS OF 40 PIPE SIZES (40D)

A. THE INLET END OF A HORIZONTAL OFFSET IN A DRAIN STACK DOWNSTREAM FROM ITS UPPER DRAIN STACK CONNECTION.

B. FORWARD FROM THE BASE OF A DRAIN STACK.

C. FORWARD FROM THE OUTLET OF A HORIZONTAL CHANGE OF DIRECTION WITHIN 50 FEET FROM THE BASE OF A DRAIN STACK.

719.4 SUDS PRESSURE RELIEF PIPING

WHERE A FIXTURE BRANCH IS CONNECTED TO DRAIN STACK PIPING WITHIN AN AREA OF SUDS PRESSURE, THE FIXTURE BRANCH SHALL HAVE A SUDS PRESSURE RELIEF PIPE CONNECTED BETWEEN THE SOURCE OF SUDS PRESSURE AND THE FIRST FIXTURE TRAP IN THE FIXTURE BRANCH. SUDS PRESSURE RELIEF PIPING SHALL BE 2-INCH MINIMUM PIPE SIZE BUT NOT LESS THAN ONE PIPE SIZE SMALLER THAN THE FIXTURE BRANCH BEING VENTED. SUDS PRESSURE RELIEF

PIPING SHALL COMPLY WITH THE REQUIREMENTS FOR VENT PIPING AND BE CONNECTED TO A STACK VENT OR OTHER ATMOSPHERIC VENT PIPING WITH NO ADDITIONAL DRAINAGE FIXTURE UNITS (DFUS) FROM THE PRESSURE RELIEF PIPING. IF NECESSARY, THE STACK VENT OR OTHER ATMOSPHERIC VENT PIPING THAT THE SUDS PRESSURE RELIEF PIPING IS CONNECTED TO SHALL BE INCREASED TO NOT LESS THAN THE PIPE SIZE OF THE SUDS PRESSURE RELIEF PIPING.

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

TABLE 702.2 UNDERGROUND BUILDING DRAINAGE AND VENT PIPE

Material	**Standard**
Acrylonitrile Butadiene Styrene (ABS) Plastic Pipe in IPS Diameters (8", 10", 12", 15") including Schedule 40, DR 22 (PS 200) and DR 24 (PS 140); with a Solid, Cellular Core or Composite Wall	ASTM D2661; ASTM F628; ASTM F1488; CSA B181.1

Table 702.3 Building Sewer Pipe

Material	**Standard**
Acrylonitrile Butadiene Styrene (ABS) Plastic Pipe in IPS Diameters, Including Schedule 40, DR 22 (PS 200) and DR 24 (PS 140); with a Solid, Cellular Core or Composite Wall	ASTM D2661; ASTM D2680; ASTM F628; ASTM F1488; CSA B181.1

Acrylonitrile Butadiene Styrene (ABS) Plastic Pipe in Sewer and Drain Diameters Including SDR 42 (PS 20), PS 35, SDR 35 (PS 45), PS 50, PS 100, PS 140, SDR 23.5 and PS 200; with a Solid, Cellular Core or Composite Wall	ASTM D2661; ASTM F628; ASTM F1488; CSA B181.1

SECTION 716.8

CHAPTER 8—INDIRECT/SPECIAL WASTE

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

802.4.4 SANITARY FLOOR SINKS

IN FOOD HANDLING ESTABLISHMENTS AND FOOD HANDLING AREAS WITHIN BUILDINGS, SANITARY FLOOR SINKS SHALL BE FLUSH WITH THE SURROUNDING FINISHED FLOOR WITH DOME STRAINERS.

CHAPTER 9—VENTS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

901.3 CHEMICAL WASTE VENT PIPING

THE VENT PIPING FOR CHEMICAL WASTE SYSTEM SHALL BE INDEPENDENT FROM SANITARY VENT PIPING AND SHALL TERMINATE SEPARATELY TO AN OUTDOOR VENT TERMINAL. AIR ADMITTANCE VALVES ARE PROHIBITED FOR CHEMICAL WASTE VENT PIPING.

SECTION 903 OUTDOOR VENT TERMINALS

903.1 ROOF EXTENSION

OPEN VENT PIPES THAT EXTEND THROUGH AN UNOCCUPIED ROOF SHALL BE TERMINATED NOT LESS THAN 6 INCHES ABOVE THE ROOF, MEASURED FROM THE HIGHEST POINT WHERE THE VENT PIPE PENETRATES THE SURFACE OF THE ROOFING. WHERE THE ROOF IS USED FOR ASSEMBLY OR AS A PROMENADE, OBSERVATION DECK, SUNBATHING DECK, OR SIMILAR PURPOSES, OPEN VENT PIPES SHALL TERMINATE NOT LESS THAN 7 FEET ABOVE THE ROOF.

904.1 REQUIRED VENT EXTENSIONS

THE ATMOSPHERIC VENT PIPING SERVING FIXTURES ON EACH BUILDING DRAIN, INCLUDING STACK VENTS, SHALL BE EXTENDED TO AN OUTDOOR VENT TERMINAL. ONE OR MORE VENT TERMINALS HAVING THE AGGREGATE CROSS-SECTIONAL AREA OF A 3-INCH VENT TERMINAL (7.1 SQ. IN.) OR EQUIVALENT SHALL BE PERMITTED TO VENT A 4-INCH BUILDING DRAIN. 1-1/2-INCH NOMINAL PIPE SIZE = 1.8 SQ. IN. / 2-INCH NOMINAL PIPE SIZE = 3.1 SQ. IN. / 4-INCH NOMINAL PIPE SIZE = 12.6 SQ. IN.

905.1 CONNECTION

INDIVIDUAL, BRANCH AND CIRCUIT VENTS SHALL CONNECT TO A VENT STACK, STACK VENT, OR EXTEND TO THE OPEN AIR.

905.4.1 DRY VENT

VENTING BELOW A FIXTURE TRAP SHALL RISE VERTICALLY WITH A WYE FITTING TO A MINIMUM OF 6-INCHES ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE BEING SERVED BEFORE CONNECTING TO ANOTHER VENT.

912.1 GENERAL

FIXTURES IN ONE BATHROOM GROUP OR TWO ADJACENT BATHROOM GROUPS ON THE SAME FLOOR LEVEL MAY BE WET VENTED. FIXTURES THAT CAN BE WET VENTED ARE LAVATORIES, WATER CLOSETS, BATHTUBS, SHOWERS, AND TUB/SHOWERS. WATER CLOSETS AND URINALS SHALL NOT BE DRAINED BY WET VENT PIPING, WHICH IS LIMITED TO DRAINING WASTE, BUT THEY CAN BE VENTED BY WET VENT PIPING.

915.1 A COMBINATION WASTE AND VENT SYSTEM SHALL NOT SERVE FIXTURES OTHER THAN FLOOR DRAINS, SINKS, LAVATORIES AND DRINKING FOUNTAINS. COMBINATION WASTE AND VENT SYSTEMS SHALL NOT RECEIVE THE DISCHARGE FROM A CLINICAL SINK.

916.3 *(FROM 2015 NSPC 12.6.2)* **HORIZONTAL VENT BELOW FIXTURE FLOOD LEVEL RIM**

WHERE A VENT PIPE CONNECTS TO A HORIZONTAL FIXTURE DRAIN BRANCH, AND CONDITIONS REQUIRE A HORIZONTAL OFFSET IN THE VENT BELOW THE FLOOD LEVEL RIM OF THE FIXTURE SERVED, THE VENT SHALL BE TAKEN OFF SO THAT THE INVERT OF THE HORIZONTAL PORTION OF THE VENT PIPE IS AT OR ABOVE THE CENTERLINE OF THE HORIZONTAL SANITARY DRAIN PIPE.

918.1 LIMITED USE

IF PERMITTED BY THE AHJ, AN INDIVIDUAL FIXTURE MAY BE VENTED BY AN AIR ADMITTANCE VALVE (AAV) UNDER THE FOLLOWING CONDITIONS:

a. THE FIXTURE IS AN ADDITION OR MODIFICATION TO AN EXISTING PLUMBING SYSTEM.

b. THE FIXTURE IS A LAVATORY, SINK, OR STANDPIPE HAVING A 1-1/4", 1-1/2", OR 2" DRAIN CONNECTION. TWO FIXTURES SUCH AS A LAVATORY OR SINK CONNECTED TO A VERTICAL DRAIN MAY BE COMMON VENTED BY ONE AAV. STANDPIPE DRAINS SHALL NOT BE COMMON VENTED.

c. THERE IS AN EXISTING CONDITION THAT PREVENTS THE PROPER INSTALLATION OF VENT PIPING FOR THE FIXTURE OR FIXTURES.

d. THE MAXIMUM LENGTH OF THE FIXTURE TRAP ARM IS WITHIN IPC TABLE 909.1.

e. THE AAV IS INSTALLED VERTICALLY NOT LESS THAN 4 INCHES ABOVE THE TOP OF THE FIXTURE TRAP ARM.

f. THE AAV COMPLIES WITH ASSE 1051 FOR INDIVIDUAL FIXTURES AND IS INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

g. THE AAV IS ADEQUATELY SIZED FOR THE TOTAL DRAINAGE FIXTURE UNITS (DFUS) BEING VENTED.

    (i) THE AAV IS LOCATED WHERE THERE IS FREE MOVEMENT OF ITS REQUIRED INLET AIR AND THE VALVE IS ACCESSIBLE FOR REPLACEMENT.

h. THE FIXTURE DRAIN PIPING BEYOND THE AAV IS CONNECTED TO SANITARY DRAIN PIPING SERVING FIXTURES THAT ARE VENTED BY ATMOSPHERIC VENT PIPING IN ACCORDANCE WITH THIS CODE.

919.1 GENERAL

ENGINEERED VENT SYSTEMS SHALL COMPLY WITH THIS SECTION AND THE DESIGN, SUBMITTAL, APPROVAL, INSPECTION, AND TESTING REQUIREMENTS OF PART 100, SECTION 104 OF THIS CODE.

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

SECTION 903.1.3, SECTION 903.2, SECTION 904.1, SECTION 904.1.2, SECTION 904.2, SECTION 904.2, SECTION 904.3, SECTION 904.4, SECTION 904.5, SECTION 918.2, SECTION 918.3, SECTION 918.3.1, SECTION 918.3.2, SECTION 918.4, SECTION 918.5, SECTION 918.6, SECTION 918.7, SECTION 918.8

CHAPTER 10—TRAPS, INTERCEPTORS, AND SEPARATORS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

1001.2 GREASE INTERCEPTORS AND GREASE RECOVERY DEVICES (GRD)

GREASE INTERCEPTORS AND GREASE RECOVERY DEVICES (GRDS) ARE SUBJECT TO THE APPROVAL OF THE HEALTH DEPARTMENT.

1003.1.1 NON-GREASE DRAINAGE

DRAINAGE FROM LAVATORIES, SINKS FOR HANDWASHING, FOOD PREPARATION SINKS, CAN WASHING DRAINS, MOP SINKS, FLOOR DRAINS, AND FLOOR SINKS IN AREAS WITH GREASE PRODUCING FIXTURES SHALL BE PERMITTED TO DRAIN THROUGH A GREASE INTERCEPTOR ALONG WITH GREASE PRODUCING FIXTURES.

1003.3.1.2 FOOD CONTAINING EQUIPMENT

ICE MACHINES, ICE BINS, FOOD PREPARATION SINKS, AND OTHER FOOD CONTAINING EQUIPMENT THAT DRAIN INDIRECTLY WITH AN AIR GAP SHALL BE PERMITTED TO DRAIN TO A GREASE INTERCEPTOR.

1003.3.2 FOOD WASTE DISPOSERS

A TRAPPED AND VENTED SINK WITH A FOOD WASTE DISPOSER MAY DISCHARGE TO A GREASE INTERCEPTOR IF A FOOD WASTE INTERCEPTOR OR FOOD SEPARATOR IS INSTALLED IN THE INLET PIPING FOR THE GREASE INTERCEPTOR.

1003.3.2.1 PROHIBITED WASTE

WATER CLOSETS, URINALS, AND OTHER FIXTURES THAT DISCHARGE HUMAN WASTE SHALL NOT DISCHARGE THROUGH A GREASE INTERCEPTOR.

1003.3.7 GRAVITY GREASE INTERCEPTORS

OUTDOOR UNDERGROUND GRAVITY GREASE INTERCEPTORS SERVING COMMERCIAL KITCHENS SHALL BE SIZED AND DESIGNED BY A REGISTERED DESIGN PROFESSIONAL WHO IS LICENSED TO PRACTICE IN THE PARTICULAR JURISDICTION.

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

SECTION 1002.1 FIXTURE TRAPS, EXCEPTION 3 AND EXCEPTION 4

CHAPTER 11—STORM DRAINAGE

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

1101.8 CLEANOUTS

TWO-WAY CLEANOUTS SHALL NOT BE PROHIBITED AT THE CONNECTION OF A BUILDING STORM DRAINS TO PUBLIC STORM DRAINS.

1105.3 DESIGN DATA

THE REQUIRED GPM FLOW RATES, MAXIMUM INLET ELEVATIONS, AND MAXIMUM HYDRAULIC HEADS FOR THE ROOF DRAINS SHALL BE INDICATED IN THE PROJECT DESIGN DOCUMENTS FOR THE APPROVAL AND FUTURE REPLACEMENT OF THE ROOF DRAINS.

1109.1 GENERAL

BALTIMORE COUNTY DOES NOT HAVE COMBINED PUBLIC SEWERS FOR SANITARY DRAINAGE AND STORM WATER.

SUBSOIL DRAINS

SUBSOIL DRAINS SHALL BE OPEN-JOINTED, HORIZONTALLY SPLIT OR PERFORATED PIPE CONFORMING TO ONE OF THE STANDARDS LISTED IN TABLE 1102.5. SUCH DRAINS SHALL BE NOT LESS THAN 3 INCH IN DIAMETER. WHERE THE BUILDING IS SUBJECT TO BACKWATER, THE SUBSOIL DRAIN SHALL BE PROTECTED BY AN ACCESSIBLY LOCATED BACKWATER VALVE. SUBSOIL DRAINS SHALL DISCHARGE TO A SUMP, OR APPROVED LOCATION ABOVE GROUND. THE SUBSOIL SUMP SHALL BE REQUIRED TO HAVE A GAS-TIGHT COVER. THE SUMP AND PUMPING SYSTEM SHALL COMPLY WITH SECTION 1113.1.

FOUNDATION DRAINS

DRAINAGE FROM FOUNDATION DRAINAGE SHALL BE DISCHARGED TO A STORM DRAIN, STREET, ALLEY, APPROVED WATER COURSE, OR AT GRADE. WHEN

DISCHARGED AT GRADE, THE POINT OF DISCHARGE SHALL BE AT LEAST 10 FEET FROM ANY PROPERTY LINE WHERE POSSIBLE.

1113.5 WATER-OPERATED SUMP PUMPS

WATER-OPERATED SUMP PUMPS SHALL NOT BE USED AS A PRIMARY PUMP. THEY SHALL BE SECONDARY TO AN ELECTRIC-POWERED SUMP PUMP. BACK FLOW PROTECTION FOR THE WATER SUPPLY TO A WATER-POWERED SUMP PUMP SHALL BE PROVIDED BY AN ASSE 1013 (RP) REDUCED PRESSURE PRINCIPLE BACK FLOW PREVENTER. VACUUM BREAKERS SHALL NOT BE PERMITTED.

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

SECTION 1103

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

CHAPTER 13

CHAPTER 14—SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

1401.1 SCOPE

BALTIMORE COUNTY DOES NOT PERFORM INSPECTIONS ON GRAYWATER SYSTEMS. GRAYWATER SYSTEMS MUST COMPLY WITH MD. CODE, ENVIRONMENT, § 9-1112. PERMITTED USE OF GRAYWATER.

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

SECTIONS 1402-1403

CHAPTER 15—REFERENCED STANDARDS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

ANSI Z21.10.1 – 2017

ANSI Z21.10.3 – 2017

ASCE 24 – 2014

ASSE 1014 – 2017

ASSE 1053 – 2016

ASSE 1057 – 2012

ASSE 1082 – 2018

ASSE 1084 – 2015

ASSE 1085 – 2018

ASTM A312- 2015A

ASTM A778 – 2015

ASTM B42 – 2015A

ASTM B43 – 2015

ASTM B302 – 2012

ASTM D2321 – 2018

AWWA C900 – 2018

IAMPO PS – 104 – 2019

IAMPO PS-117 – 2017

UL 174 – 2004

UL 499 – 2014

UL 732 – 2018

UL 1453 – 2016

DELETIONS TO THE INTERNATIONAL PLUMBING CODE:

NFPA 13 – 2019

NFPA 13D – 2016

NFPA 13R – 2019

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

CHAPTER 16—REGULATIONS GOVERNING INDIVIDUAL SEWAGE DISPOSAL SYSTEMS FOR HOMES AND OTHER ESTABLISHMENTS WHERE PUBLIC SEWAGE SYSTEMS ARE NOT AVAILABLE

GENERAL

THE USE AND MAINTENANCE OF AN ONSITE SEWAGE DISPOSAL SYSTEM IS GOVERNED BY TITLE 9 OF THE ENVIRONMENTAL ARTICLE OF THE ANNOTATED CODE OF MARYLAND AND CHAPTERS 26.04.02 AND 26.04.03 OF THE CODE OF MARYLAND REGULATIONS (COMAR). THESE STATE OF MARYLAND REGULATIONS ARE HEREIN ADOPTED BY REFERENCE. BALTIMORE COUNTY HAS ALSO ADOPTED REGULATIONS PERTAINING TO ONSITE SEWAGE DISPOSAL SYSTEMS IN THE CODE OF BALTIMORE COUNTY REGULATIONS (COBAR) TITLE 01.03.01.

ONSITE SEWAGE DISPOSAL SYSTEMS

ONSITE SEWAGE DISPOSAL SYSTEMS IN THIS SECTION SHALL MEAN A SYSTEM DESIGNED TO TREAT AND DISPOSE OF DOMESTIC SEWAGE FROM A HOME OR BUSINESS, OR INSTITUTION BENEATH THE LAND SURFACE. ONSITE SEWAGE DISPOSAL SYSTEMS INCLUDE THE SEWAGE CONVEYANCE LINES OUTSIDE OF A BUILDING, SEWAGE TREATMENT UNITS (I.E., GREASE INTERCEPTORS, SEPTIC TANKS, AND SECONDARY TREATMENT UNITS), THE SOIL ABSORPTION FIELD AND RELATED APPURTENANCES.

DOMESTIC SEWAGE

WHERE PUBLIC SEWAGE IS NOT AVAILABLE AS DETERMINED BY THE AUTHORITY HAVING JURISDICTION (AHJ), AND WATER IS PROVIDED TO A BUILDING UNDER PRESSURE, DOMESTIC SEWAGE GENERATED FROM A BUILDING SHALL BE DISPOSED OF BY AN ONSITE SEWAGE DISPOSAL SYSTEM AS APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY OR THE DIRECTOR'S DESIGNEE. FLOOR DRAINS, AND DRAINAGE FROM FOOTINGS OR ROOFS SHALL NOT ENTER THE SYSTEM. DOMESTIC SEWAGE OR SEWAGE EFFLUENT SHALL NOT BE DISPOSED OF IN A MANNER THAT WILL CAUSE POLLUTION OF THE GROUND SURFACE, GROUND WATER, BATHING AREAS, LAKES, PONDS, WATERCOURSES, TIDEWATER, OR CREATE A NUISANCE.

BACKWASH FROM WATER TREATMENT DEVICES

BACKWASH FROM WHOLE HOUSE REVERSE OSMOSIS TREATMENT SYSTEMS MAY NOT BE DISCHARGED TO THE ONSITE SEWAGE DISPOSAL SYSTEM WITHOUT PRIOR AUTHORIZATION FROM THE DIRECTOR OF THE DEPARTMENT OF

ENVIRONMENTAL PROTECTION AND SUSTAINABILITY OR THE DIRECTOR'S DESIGNEE. BRINE BACKWASH FROM WATER SOFTENERS MAY NOT BE DISCHARGED TO A SEWAGE PRETREATMENT UNIT. BACKWASH FROM OTHER WATER TREATMENT DEVICES MAY BE DISCHARGED TO THE ONSITE SEWAGE DISPOSAL SYSTEM PROVIDED IT DOES NOT ADVERSELY AFFECT THE FUNCTIONALITY OF THE SYSTEM.

NON-WATER CARRIED SEWAGE

CHEMICAL TOILETS MUST BE CONSTRUCTED AS PER COMAR 26.04.02.08(C) AND MAY ONLY BE USED FOR SPECIAL TERM EVENTS, CONSTRUCTION PROJECTS AND THE ABATEMENT OF PROBLEMS. CHEMICAL TOILETS MAY NOT BE USED TO SUPPORT NEW CONSTRUCTION, ADDITIONS, OR A CHANGE IN USE.

GRAVITY SEWER LINES FOR ONSITE SEWAGE DISPOSAL SYSTEMS GRAVITY SEWER LINES OUTSIDE OF A BUILDING USED FOR ONSITE SEWAGE DISPOSAL SYSTEMS SHALL BE 4-INCH IN SIZE, BE OF SCHEDULE 40 OR SDR 26 PVC OR BETTER. MINIMUM COVER ON A GRAVITY SEWER LINE BETWEEN THE BUILDING AND SEPTIC TANK SHALL BE 18 INCHES UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE. CLEANOUTS SHALL BE INSTALLED BETWEEN THE HOUSE AND DISTRIBUTION BOX AT LEAST EVERY 100 FEET AND AT EACH CHANGE OF DIRECTION GREATER THAN 45 DEGREES OR VERTICAL DROP. ALL JOINTS SHALL BE SEALED BY A METHOD APPROVED BY THE PLUMBING CODE. OPTIMAL FALL FOR GRAVITY SEWERS BETWEEN THE BUILDING AND THE SEPTIC TANK IS ¼ IN/FT. (I.E., 2%

SLOPE). THE MINIMUM FALL FOR GRAVITY SEWER LINES IS 1/8 IN/FT. (I.E., 1% SLOPE). GRAVITY SEWER LINES WITH LESSER SLOPE WILL REQUIRE A VARIANCE REQUEST FROM THE PROPERTY OWNER AND APPROVAL BY THE BALTIMORE COUNTY CHIEF PLUMBING INSPECTOR.

SEPTIC TANK CAPACITY

THE LIQUID CAPACITY OF SEPTIC TANKS FOR SINGLE-FAMILY DWELLING UNITS HAVING UP TO FIVE BEDROOMS AND NOT SERVED BY A PRETREATMENT UNIT SHALL BE AT LEAST 1,500 GALLONS UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY OR THE DIRECTOR'S DESIGNEE. AN ADDITIONAL 250-GALLONS OF CAPACITY SHALL BE PROVIDED FOR EACH BEDROOM IN EXCESS OF FIVE. SEPTIC TANK CAPACITY FOR BUILDINGS OTHER THAN SINGLE-FAMILY DWELLINGS SHALL BE DETERMINED BY THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY OR THE DIRECTOR'S DESIGNEE IN ACCORDANCE WITH COMAR 26.04.02.05(F) AND BASED ON PEAK DESIGN FLOWS AND OTHER PERTINENT DATA.

CONSTRUCTION OF TANKS USED FOR ONSITE SEWAGE DISPOSAL SYSTEMS

ALL TANKS USED FOR ONSITE SEWAGE DISPOSAL MUST BE WATERTIGHT. CONCRETE TANKS SHALL BE 2-COMPARTMENTS WITH A TOP-SEAM AND CONSTRUCTED IN ACCORDANCE WITH ASTM C1227 OR BETTER. CONCRETE GREASE INTERCEPTORS SHALL BE TOP-SEAM AND CONSTRUCTED IN ACCORDANCE WITH ASTM C1613 OR BETTER. ALL OTHER CONCRETE TANKS

USED FOR ONSITE SEWAGE DISPOSAL SYSTEMS SHALL MEET OR EXCEED ASTM C913. PLASTIC OR FIBERGLASS TANKS MAY ALSO BE UTILIZED ON A CASE-BY-CASE BASIS AS AUTHORIZED BY THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE. METAL TANKS SHALL NOT BE USED FOR ONSITE SEWAGE DISPOSAL SYSTEMS.

INSTALLATION OF TANKS USED FOR ONSITE SEWAGE DISPOSAL SYSTEMS

THE MAXIMUM COVER ON A TANK USED FOR ONSITE SEWAGE DISPOSAL SHALL BE 2 FEET UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE. TANKS INSTALLED UNDER PAVED SURFACES OR PARKING AREAS OR WITH COVER GREATER THAN 3 FEET MUST BE RATED AS TRAFFIC-BEARING BY THE MANUFACTURER. CONCRETE TANKS MUST BE INSTALLED LEVEL ON PROPER BEDDING OR ON COMPACTED NATIVE SOILS AND BACKFILLED IN UNIFORM COMPACTED LAYERS LESS THAN 24 INCHES WITH NATIVE SOIL OR FILL MATERIAL LESS THAN 3 INCHES IN DIAMETER. APPROVED PLASTIC OR FIBERGLASS TANKS MUST BE INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS. WATERTIGHT MANHOLE RISERS (24-30 INCHES IN DIAMETER) TO GRADE OR SLIGHTLY ABOVE GRADE SHALL BE INSTALLED ON ALL TANKS USED FOR ONSITE SEWAGE DISPOSAL WITH FINISHED GRADING SLOPING AWAY FROM THE MANHOLE RISERS. TANK LIDS SHALL BE HEAVY ENOUGH (I.E., CONCRETE)

OR SECURED IN PLACE TO PREVENT TAMPERING AND THE TANK PLUG LEFT IN PLACE OR A SAFETY PAN INSTALLED.

PUMPS USED FOR ONSITE SEWAGE DISPOSAL SYSTEMS

PUMPS USED FOR ONSITE SEWAGE DISPOSAL SYSTEMS SHALL BE EFFLUENT GRADE UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE. GRINDER PUMPS MAY NOT BE USED IN CONJUNCTION WITH ONSITE SEWAGE DISPOSAL SYSTEMS. UNLESS SPECIFIED BY THE DIRECTOR OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE, THE LICENSED SYSTEM INSTALLER IS RESPONSIBLE FOR ENSURING THAT THE PUMP IS APPROPRIATELY SIZED FOR THE SYSTEM BASED ON THE TOTAL DYNAMIC HEAD AND PUMPING RATE NEEDED FOR THE PROJECT. PUMPS MUST BE INSTALLED IN ACCORDANCE WITH THE LOCAL ELECTRIC CODE AND COMAR 26.04.02.05(H). THE PUMP DISCHARGE LINE SHOULD BE FITTED WITH A QUICK DISCONNECT UNION WITHIN 1 FOOT OF THE MANHOLE COVER TO ALLOW FOR PUMP MAINTENANCE/REPLACEMENT. PUMP FLOATS MUST BE INSTALLED WITHIN THE SAME MANHOLE RISER ON A VERTICAL PIPE OR SHAFT THAT IS SEPARATE FROM THE DISCHARGE PIPE. ELECTRICAL JUNCTION BOXES MAY NOT BE LOCATED WITHIN THE PUMP CHAMBER. ALL PENETRATIONS INTO THE MANHOLE RISERS SHALL BE WATERTIGHT.

FORCED MAINS FOR ONSITE SEWAGE DISPOSAL SYSTEMS

THE FORCED MAIN PIPE BETWEEN THE PUMP AND THE POINT OF DISCHARGE SHALL BE SCHEDULE 40 (SOLID CORE) OR SDR 21 PVC OR BETTER. ALL

SCHEDULE 40 AND SDR 21 FITTINGS MUST BE PRESSURE RATED. WEEP HOLES (1/4' OR 5/16" IN DIAMETER) SHOULD BE DRILLED INTO THE FORCE MAIN WITHIN THE PUMP CHAMBER TO ALLOW SEWAGE EFFLUENT TO DRAIN BACK TO THE PUMP CHAMBER IN BETWEEN DOSES. MINIMUM COVER ON FORCE MAINS TO REMAIN FULL BETWEEN DOSES SHALL HAVE AT LEAST 30 INCHES OF COVER SO AS TO PREVENT FREEZING.

DISTRIBUTION BOXES

DISTRIBUTION BOXES SHALL BE USED WHEN MORE THAN ONE TRENCH OR SEEPAGE PIT IS USED AS PART OF A GRAVITY SUBSURFACE DISPOSAL SYSTEM. DISTRIBUTION BOXES SHALL BE CONSTRUCTED OF CONCRETE OR POLYETHYLENE AND MANUFACTURED SPECIFICALLY FOR USE WITH ONSITE SEWAGE DISPOSAL SYSTEMS. DISTRIBUTION BOXES MUST BE WATERTIGHT AND INSTALLED LEVEL ON PROPER BEDDING OR ON COMPACTED NATIVE SOIL. THE MAXIMUM COVER ON A DISTRIBUTION BOX SHALL BE 2 FEET UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE. EFFLUENT LINES TO THE DISTRIBUTION BOX SHALL TERMINATE INSIDE THE DISTRIBUTION BOX WITH A "T" OR 90-DEGREE FITTING DIRECTED TOWARDS THE BOTTOM. ALTERNATELY, A BAFFLE (AT LEAST 6 INCHES HIGH AND 12 INCHES LONG) SHALL BE PLACED ON THE BOTTOM OF THE BOX AT A RIGHT ANGLE TO THE DIRECTION OF THE INCOMING EFFLUENT AND 8 INCHES IN FRONT OF IT. DISTRIBUTION BOXES MUST BE FITTED WITH A MINIMUM 12-INCH

RISER AND COVER TO GRADE OR SLIGHTLY ABOVE GRADE WITH FINISH GRADING SLOPING AWAY FROM THE DISTRIBUTION BOX COVER.

SOIL ABSORPTION TRENCHES

UNLESS OTHERWISE SPECIFIED IN THE PLANS APPROVED BY THE DIRECTOR OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE, THE FOLLOWING SHALL APPLY TO FOR THE CONSTRUCTION OF SOIL ABSORPTION TRENCHES:

a. TRENCHES SHALL BE 2 FEET IN WIDTH, INSTALL ON CONTOUR, AND NO GREATER THAN 75 FEET IN LENGTH;
b. TRENCH BOTTOMS SHALL BE LEVEL WITH A TOLERANCE OF NO MORE THAN 4 INCHES PER 100 FEET;
c. VERTICAL 4-INCH OBSERVATION PIPES SHALL BE PROVIDED AT THE TERMINAL END OF EACH ABSORPTION TRENCH. VERTICAL OBSERVATION PIPES SHALL BE PERFORATED WITHIN THE ENTIRE DEPTH OF THE FILTER MATERIAL. THE PORTION OF ABSORPTION PIPES THAT IS ABOVE THE FILTER MATERIAL SHALL BE SOLID SCHEDULE 40 OR SDR 26 PVC PIPE EXTENDING ABOVE GRADE AND FITTED WITH A REMOVABLE CAP;
d. FILTER MATERIAL IN THE TRENCH SHALL BE WASHED STONE RANGING IN SIZE FROM ¾ INCH TO 2 INCHES;
e. PIPE WITHIN THE TRENCH SHALL BE 4-INCH PERFORATED PLASTIC PIPE CONFORMING TO ASTM F810 OR BETTER. THE PERFORATED PIPE SHALL

BE INSTALLED LEVEL BETWEEN 18-24 INCHES BELOW GRADE WITH A MINIMUM OF 2 INCHES OF STONE ON TOP OF THE PIPE;

f. THE TOP OF THE FILTER MATERIAL SHALL BE COVERED WITH A NON-WOVEN GEOTEXTILE FABRIC BEFORE BACKFILLING THE TRENCH WITH SOIL.

SEEPAGE PITS

SEEPAGE PITS MAY BE USED TO SUPPLEMENT THE SOIL ABSORPTION TRENCHES OR IN LIEU OF SOIL ABSORPTION TRENCHES WHERE CONDITIONS FAVOR THE OPERATION OF SEEPAGE PITS AS DETERMINED BY THE DIRECTOR OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE. THE FOLLOWING SHALL APPLY TO FOR THE CONSTRUCTION OF SEEPAGE PITS:

a. SEEPAGE PITS SHALL BE EXCAVATED TO A MINIMUM OF 12 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE SIDEWALLS;

b. SEEPAGE PITS SHALL BE CONSTRUCTED WITH SIDEWALLS MADE OF A PRE-CAST CONCRETE LINER OR UNMORTARED CINDER BLOCK PLACED ON LEVEL NATIVE SOIL THAT IS OPEN IN THE CENTER;

c. THE ANNULAR SPACE BETWEEN THE OUTSIDE OF THE VERTICAL WALL AND THE EXCAVATION SHALL BE BACKFILLED WITH WASHED STONE RANGING IN SIZE FROM ¾ INCH TO 2 INCHES;

d. THE TOP OF THE WASHED GRAVEL SHALL BE COVERED WITH A NON-WOVEN GEOTEXTILE FABRIC BEFORE BACKFILLING WITH SOIL;

e. SEEPAGE PITS SHALL BE COVERED WITH A PRE-CAST, REINFORCED CONCRETE TOP NOT LESS THAN 5 INCHES THICK THAT EXTENDS AT LEAST 3 INCHES BEYOND THE SIDEWALLS AND FITTED WITH A 4- OR 6-INCH INSPECTION PORT CONSTRUCTED WITH SOLID SCHEDULE 40 OR SDR 26 PVC PIPE EXTENDING TO GRADE AND FITTED WITH A REMOVABLE CAP;

f. THE MAXIMUM COVER OVER A SEEPAGE PIT SHALL BE NO GREATER THAN 3 FEET UNLESS APPROVED BY THE DIRECTOR OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY, OR THE DIRECTOR'S DESIGNEE.

ONSITE SEWAGE DISPOSAL SYSTEM ABANDONMENT ONSITE SEWAGE DISPOSAL SYSTEMS SHALL BE ABANDONED IN THE FOLLOWING MANNER:

a. CONVEYANCE LINES SHALL BE DISCONNECTED FROM THE BUILDINGS SERVED;

b. LIQUID FROM CESSPOOLS, TANKS, AND SEEPAGE PITS SHALL BE PUMPED DRY BY A LICENSED LIQUID WASTE HAULER;

c. EMPTIED CESSPOOLS, TANKS, AND SEEPAGE PITS SHALL BE CRUSHED, FILLED WITH CLEAN FILL OR STONE TO GRADE, AND PROPERLY COMPACTED TO MINIMIZE SUBSIDENCE;

d. ABSORPTION TRENCHES AND TILES FIELDS MAY BE LEFT IN PLACE.

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE:

CHAPTER 17 —PRIVATE POTABLE WATER SUPPLY SYSTEMS

SECTION 1701.1 GENERAL

GENERAL

WATER WELL CONSTRUCTION IN MARYLAND IS GOVERNED BY TITLE 9, SUBTITLE 13 OF THE ENVIRONMENTAL ARTICLE OF THE ANNOTATED CODE OF MARYLAND AND CHAPTER 26.04.04 OF THE CODE OF MARYLAND REGULATIONS (COMAR). ADDITIONALLY, NON-COMMUNITY POTABLE WATER SYSTEMS ARE GOVERNED BY COMAR CHAPTER 26.04.02. THESE STATE OF MARYLAND REGULATIONS ARE HEREIN ADOPTED BY REFERENCE. BALTIMORE COUNTY HAS ALSO ADOPTED REGULATIONS PERTAINING TO PRIVATE DRINKING WATER SUPPLIES IN THE CODE OF BALTIMORE COUNTY REGULATIONS (COBAR) TITLE 01.03.02.

CONNECTIONS BETWEEN PRIVATE AND PUBLIC SYSTEMS

THERE SHALL BE NO CONNECTIONS BETWEEN A PRIVATE WATER SUPPLY AND A PUBLIC WATER SUPPLY SYSTEM.

CONNECTIONS BETWEEN PROPERTIES

NO PRIVATE WATER SUPPLY SHALL SERVE MORE THAN ONE PROPERTY UNLESS APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ).

PART 300—INTERNATIONAL FUEL GAS CODE (IFGC)

CHAPTER 1—SCOPE AND ADMINISTRATION

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE:

101.1 TITLE

THESE REGULATIONS SHALL BE KNOWN AS PART 300 OF THE PLUMBING AND GASFITTING CODE OF BALTIMORE COUNTY.

101.1.1 ADOPTION OF THE INTERNATIONAL FUEL GAS CODE

ALL SECTIONS AND SUBSECTIONS OF THE 2018 IFGC ARE ADOPTED UNLESS LISTED BELOW AS DELETED, AMENDED, OR REPLACED. ADDITIONS ARE ALSO LISTED BELOW.

101.1.2 COMMON PROVISIONS

REFER TO PART 100 OF THE BALTIMORE COUNTY PLUMBING AND GASFITTING CODE FOR ITS PROVISIONS THAT APPLY TO THIS PART 300.

101.2 SCOPE

THIS PART 300 APPLIES TO THE INSTALLATION OF FUEL GAS PIPING SYSTEMS IN ACCORDANCE WITH ITS SECTIONS 101.2.1 THROUGH 101.2.7 AS INDICATED BELOW.

101.2.1 GASEOUS HYDROGEN SYSTEMS

101.2.2 PIPING SYSTEMS

101.2.3 GAS APPLIANCES

101.2.4 SYSTEMS, APPLIANCES, AND EQUIPMENT OUTSIDE THE SCOPE

101.2.5 OTHER FUELS

FUELS OTHER THAN NATURAL GAS AND PROPANE (LP-GAS) ARE NOT WITHIN THE SCOPE OF THIS PART 300.

101.2.6 FUEL GAS SUPPLY

THE SUPPLY OF NATURAL GAS OR PROPANE (LP-GAS) FROM A GAS UTILITY TO ITS POINT OF DELIVERY OUTSIDE OF A BUILDING, INCLUDING ANY CONTAINERS,

PIPING, MAIN SHUTOFF VALVE, PRESSURE REGULATORS, AND A GAS METER, IS NOT WITHIN THE SCOPE OF THIS PART 300.

101.2.7 FAMILY DWELLINGS

DETACHED ONE-AND TWO-FAMILY DWELLINGS AND MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) NOT MORE THAN THREE STORIES HIGH WITH SEPARATE MEANS OF EGRESS AND THEIR ACCESSORY STRUCTURES ARE WITHIN THE SCOPE OF THIS PART 300. REFER TO PART 100, SECTION 104.2.1 FOR ITS DELETED CHAPTERS OF THE INTERNATIONAL RESIDENTIAL CODE (IRC).

DELETIONS TO THE INTERNATIONAL FUEL GAS CODE:

SECTION 101.2 EXCEPTION; SECTIONS 102-116

CHAPTER 2—DEFINITION

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE:

SECTION 202 – GENERAL DEFINITIONS

AHJ: AUTHORITY HAVING JURISDICTION

AUTHORITY HAVING JURISDICTION (AHJ): THE INDIVIDUAL OR DEPARTMENT OF THE GOVERNMENT AGENCY THAT ADMINISTERS AND ENFORCES THIS CODE. THE AHJ FOR THE BALTIMORE COUNTY PLUMBING AND GAS CODE IS IDENTIFIED IN ITS PART 100, SECTION 103.2

CODE OFFICIAL*:* THE AUTHORITY HAVING JURISDICTION (AHJ)

LP-GAS LIQUEFIED PETROLEUM GAS, PROPANE

MP: MEDIUM PRESSURE

DELETIONS TO THE INTERNATIONAL FUEL GAS CODE:

SECTION 201.3

CHAPTER 3—GENERAL REGULATIONS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE:

301.11 FLOOD HAZARD

FOR PROJECTS LOCATED IN FLOOD HAZARD AREAS, THE FUEL GAS PIPING SYSTEM SHALL BE COORDINATED WITH THE REQUIREMENTS OF BALTIMORE COUNTY BASED ON ASCE 24 – FLOOD RESISTANT DESIGN AND CONSTRUCTION, AND BALTIMORE COUNTY BUILDING CODE.

EXCEPTION:

APPLIANCES, EQUIPMENT AND SYSTEM INSTALLATIONS THAT ARE NOT PART OF THE STRUCTURE SHALL BE PERMITTED TO BE INSTALLED BELOW THE FLOOD HAZARD.

CHAPTER 4—GAS PIPING INSTALLATIONS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE:

401.1.2 PART 100

THE APPLICABLE REQUIREMENTS OF THIS IFGC SECTION 401 SHALL BE ADDED TO THE COMMON PROVISIONS OF PART 100 OF THE BALTIMORE COUNTY PLUMBING AND GASFITTING CODE.

404.20 TESTING OF PIPING

BEFORE ANY SYSTEM OF PIPING IS PUT IN SERVICE OR CONCEALED, IT SHALL BE TESTED TO ENSURE THAT IT IS GAS TIGHT. TESTING, INSPECTION AND PURGING OF THE PIPING SYSTEMS SHALL COMPLY WITH PART 100 OF THE BALTIMORE COUNTY PLUMBING AND GASFITTING CODE AND IFGC SECTION 406.

406.4.1.1 TESTING PRESSURE

GAS PIPING TEST PRESSURE IN BALTIMORE COUNTY SHALL BE 20 PSI ON AN AIR PRESSURE GAUGE WITH A MAXIMUM READING OF 30 PSI.

409.1.1 VALVE APPROVAL

SHUTOFF VALVES SHALL HAVE A NON-DISPLACEABLE VALVE MEMBER, SHALL BE CONSTRUCTED OF MATERIALS COMPATIBLE WITH THE PIPING; AND SHALL COMPLY WITH THE STANDARD THAT IS APPLICABLE FOR THE PRESSURE AND APPLICATION, IN ACCORDANCE WITH TABLE 409.1.1.

409.6 SHUTOFF VALVES FOR LABORATORIES

WHERE PROVIDED WITH TWO OR MORE FUEL GAS OUTLETS, INCLUDING TABLE-, BENCH- AND HOOD-MOUNTED OUTLETS, EACH LABORATORY SPACE IN EDUCATIONAL, RESEARCH, COMMERCIAL AND INDUSTRIAL OCCUPANCIES SHALL BE PROVIDED WITH A SINGLE DEDICATED SHUTOFF VALVE THROUGH WHICH ALL SUCH GAS OUTLETS SHALL BE SUPPLIED. THE DEDICATED SHUTOFF VALVE SHALL BE READILY ACCESSIBLE, LOCATED OUTSIDE THE LABORATORY SPACE SERVED, LOCATED ADJACENT TO THE ENTRY DOOR FROM THE SPACE AND SHALL BE IDENTIFIED BY APPROVED SIGNAGE STATING “GAS SHUTOFF”.

411.4.1 APPLIANCES IN MANUFACTURED HOMES MUST COMPLY WITH SECTION 304.

DELETIONS TO THE INTERNATIONAL FUEL GAS CODE:

SECTION 401.1.1 AND SECTION 401.2

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE:

CHAPTER 5—CHIMNEYS AND VENTS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE:

CHAPTER 6—SPECIFIC APPLIANCES

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE:

CHAPTER 7 GASEOUS HYDROGEN SYSTEMS

ADDITIONS OR AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE:

CHAPTER 8 REFERENCED STANDARDS

PART 400 LIQUEFIED PETROLEUM GAS CODE

THIS PART ADOPTS THE LIQUEFIED PETROLEUM GAS CODE, NFPA 58, 2020 EDITION.

PART 401—DELETIONS

THE FOLLOWING SECTIONS AND CHAPTERS ARE DELETED FROM NFPA 58 – 2020:

SECTIONS 5.23, 5.24, 5.27, 6.21, 6.22, 6.23, 6.24, 6.25, 6.26, 6.27, 6.28, 6,29, AND 6.30.

CHAPTERS 7, 8, 9, 10, 11, 12, 13, 14, AND 15.

PART 402—ADDITIONS

THE FOLLOWING SECTION IS ADDED TO NFPA 58 – 2020:

4.4—QUALIFICATION OF PERSONNEL

4.4.5 PERSONS INSTALLING LP-GAS SERVICE WITHIN THE SCOPE OF THIS CODE SHALL BE QUALIFIED FOR THE LAYOUT, INSTALLATION, AND OPERATION OF CONTAINERS, PIPING, AND ASSOCIATED EQUIPMENT FOR DELIVERING LP-GAS TO A BUILDING OR STRUCTURE FOR USE AS ITS FUEL GAS BY BEING CERTIFIED FOR CERTIFICATION AREAS 1.0, 4.1, AND 4.2 OF THE CERTIFIED EMPLOYEE TRAINING PROGRAM (CETP) OF THE NATIONAL PROPANE GAS ASSOCIATION.

PART 403—REPLACEMENTS

THE FOLLOWING SECTIONS ARE REPLACEMENTS IN NFPA 58 – 2020.

1.3.1 APPLICATION OF CODE. THE ADOPTION OF THE LIQUEFIED PETROLEUM GAS CODE, NFPA 58, 2020 EDITION, IS LIMITED TO THE DESIGN, INSTALLATION, AND OPERATION OF CONTAINERS, PIPING, AND ASSOCIATED EQUIPMENT FOR DELIVERING LP-GAS TO A BUILDING FOR USE AS ITS FUEL GAS. NFPA 58 SHALL

NOT APPLY TO PORTIONS OF LP-GAS PIPING COVERED BY THE INTERNATIONAL FUEL GAS CODE, IFGC – 2021.

1.3.2 NONAPPLICATION OF CODE. THE ADOPTION OF THE LIQUEFIED PETROLEUM GAS CODE, NFPA 58, 2020 EDITION DOES NOT APPLY TO THE FOLLOWING:

(1) TO (11) SECTION 1.3.2

(12) HIGHWAY TRANSPORTATION OF LP-GAS.

(13) THE DESIGN, CONSTRUCTION, INSTALLATION, AND OPERATION OF MARINE TERMINALS WHOSE PRIMARY PURPOSE IS THE RECEIPT OF LP-GAS FOR DELIVERY TO TRANSPORTERS, DISTRIBUTERS, OR USERS.

(14) THE DESIGN, CONSTRUCTION, INSTALLATION, AND OPERATION OF PIPELINE TERMINALS THAT RECEIVE LP-GAS FROM PIPELINES UNDER THE JURISDICTION OF THE U.S. DEPARTMENT OF TRANSPORTATION (DOT).

SECTION 5. AND BE IT FURTHER ENACTED, that this Act shall take effect July 1, 2024.

LEGISLATION DETAIL

LEGISLATION	BILL 94-23
DISPOSITION	PASSED
ENACTED	N/A
EFFECTIVE	N/A
AMENDMENTS	NO

ROLL CALL - LEGISLATION

MOTION SECOND

AYE	NAY	
✔	☐	Councilman Young
✔	☐	Councilman Patoka
✔	☐	Councilman Kach
✔	☐	Councilman Jones
✔	☐	Councilman Marks
✔	☐	Councilman Ertel
✔	☐	Councilman Crandell

ROLL CALL - AMENDMENTS

MOTION SECOND

AYE	NAY	
☐	☐	Councilman Young
☐	☐	Councilman Patoka
☐	☐	Councilman Kach
☐	☐	Councilman Jones
☐	☐	Councilman Marks
☐	☐	Councilman Ertel
☐	☐	Councilman Crandell

ROLL CALL - AMENDMENTS

MOTION SECOND

AYE	NAY	
☐	☐	Councilman Young
☐	☐	Councilman Patoka
☐	☐	Councilman Kach
☐	☐	Councilman Jones
☐	☐	Councilman Marks
☐	☐	Councilman Ertel
☐	☐	Councilman Crandell

ROLL CALL - AMENDMENTS

MOTION SECOND

AYE	NAY	
☐	☐	Councilman Young
☐	☐	Councilman Patoka
☐	☐	Councilman Kach
☐	☐	Councilman Jones
☐	☐	Councilman Marks
☐	☐	Councilman Ertel
☐	☐	Councilman Crandell