

Maryland Building Rehabilitation Code

SMART CODES

Maryland Building Rehabilitation Code



PAUL H. GLENN,
COMMISSIONER

NATHAN GREENE THOMAS,
LEGISLATIVE COUNSEL



KENNEDY A. BURKE,
DIRECTOR

PHILIP WOLF,
LEGISLATIVE COUNSEL

A MESSAGE FROM THE GOVERNOR

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Many communities throughout Maryland thrive with active neighborhoods, strong town centers and much-loved architectural treasures. These places are the heart of our state. Many other communities are victims of economic decay or struggle to maintain their vitality. Vacant and underused buildings in these communities discourage homeowners and businesses from investing or re-investing in the area. Revitalizing these communities, including rehabilitating and re-using older buildings, is central to Maryland's *Smart Growth and Neighborhood Conservation* initiative and must be central to our plans for growth in the 21st Century.

The *Maryland Building Rehabilitation Code* and this *Handbook* set construction code requirements to make building rehabilitation projects more predictable and affordable. The *Code* takes a new approach to construction by establishing standards designed specifically for existing buildings. By adopting common-sense solutions to code issues that arise in building rehabilitation projects, the Code will encourage private investment in existing buildings, help improve the safety of these buildings, and offer a valuable tool to those working to bring new spirit to our older communities.

As part of the *Smart Codes* initiative I sponsored with the support of the Maryland General Assembly, the new *Maryland Building Rehabilitation Code* and *Handbook* will assist existing communities to compete for new investment. In turn, this investment will help communities achieve their growth and revitalization goals. Most of all, I hope this *Handbook* will be of assistance to you as you undertake a rehabilitation project in your own home or business.

A handwritten signature in blue ink that reads "Parris N. Glendening". The signature is fluid and cursive, with a long horizontal stroke at the end.

Parris N. Glendening,
Governor

MARYLAND BUILDING REHABILITATION CODE

Background

Governor Parris N. Glendening and the Maryland General Assembly created the Maryland Building Rehabilitation Code Program as part of the State's Smart Codes initiative during the 2000 General Assembly Session. This enabling legislation is codified at Article 83B, §§ 6-501 - 6-505 of the *Annotated Code of Maryland* and is reprinted as an Addendum to this Handbook.

The Maryland Department of Housing and Community Development, with assistance from the Maryland Building Rehabilitation Code Advisory Council, published proposed regulations creating the Maryland Building Rehabilitation Code in the February 9, 2001 *Maryland Register*. The Department finalized the regulations in the May 18, 2001 *Maryland Register*. They will be codified in the *Code of Maryland Regulations* at Title 05, Subtitle 16.

Implementation

The Maryland Building Rehabilitation Code became effective throughout the State on June 1, 2001. Although municipal and county governments may incorporate the Code into their own regulations, this action is not required: the Code establishes the standards for rehabilitation work in every area of the State without the need for local incorporation. As with the State's Building Code (the Maryland Building Performance Standards), the Building Rehabilitation Code is implemented through municipal and county code offices.

Municipalities and counties may decide to amend one or more provisions of the Building Rehabilitation Code. By law, they are required to report any amendments to the Maryland Department of Housing and Community Development, which will post all local amendments on its Smart Codes web site: www.dhcd.state.md.us/smartcodes.

Contents of this Handbook

The Maryland Building Rehabilitation Code Handbook retains the text and numbering system of the Building Rehabilitation Code as codified in the *Code of Maryland Regulations*. This text, printed in black throughout the Handbook, forms the State regulations that must be followed when undertaking building rehabilitation projects.

The Handbook also contains commentary and graphics intended to assist Code users when applying the Code's provisions to specific rehabilitation projects. This material is printed in blue and is set off from the Code text. The commentary and graphics are advisory only and are not binding on rehabilitation permit applicants or local jurisdictions. Additional non-binding assistance in working with the Code can be found on the Smart Codes web site: www.dhcd.state.md.us/smartcodes.

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Maryland Building Rehabilitation Code Program
Maryland Department of Housing
and Community Development
Maryland Revitalization Center
1201 West Pratt Street, Suite D
Baltimore, MD 21223

Tel: 410-209-5800
Fax: 410-685-8270

Technical Assistance Hotline:
1-866-424-6269 (toll free)
(MD RELAY 1-800-735-2258)
or
mdrehabcode@nibs.org.

Smart Codes Web Site:
<http://www.dhcd.state.md.us/smartcodes>

05.16.01 ADMINISTRATION

.01 PURPOSE AND SCOPE.

A. The purpose of this subtitle is to encourage the continued use or reuse of legally existing buildings and structures. This subtitle is intended to permit repairs, renovations, modifications, reconstructions, additions, and changes of occupancy that maintain or improve the health, safety, and welfare in existing buildings, without requiring full compliance with the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, Energy Code, Elevator Code, or Accessibility Code, except for proportional additional work as specified in this subtitle.

The “Purpose and Scope” of the MBRC states: “This subtitle is intended to permit repairs, renovations, modifications, reconstructions, additions, and changes of occupancy that maintain or improve the health, safety, and welfare in existing buildings, without requiring full compliance with the Building Code...” The goal when working in existing buildings is to maintain or improve the level of safety, without necessarily meeting the code requirements for new construction. The amount of improvement the MBRC requires will vary based on the amount of work being undertaken.

B. This subtitle applies to all rehabilitation projects for which a construction permit application is received by a local jurisdiction, the Maryland-National Capital Park and Planning Commission, or the Washington Suburban Sanitary Commission after the effective date of this subtitle.

The MBRC is triggered by the submission of a permit application. It is the sole discretion of the local jurisdiction when to require a permit. The MBRC does not alter the local permitting process.

The MBRC became effective June 1, 2001.

.02 RULES OF CONSTRUCTION.

The words and terms used in this subtitle have the following meanings unless the context clearly indicates otherwise. Any terms not defined here but defined in the other codes listed in Regulation .01 that are applicable to this subtitle have the meanings defined in the other codes. If a term is defined in this subtitle and is also defined in another code, the term has the meaning as defined in this subtitle.

If a term is not defined in either the MBRC or one of the referenced codes, the common dictionary definition governs.

.03 DEFINITIONS.

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

B. Terms Defined.

- (1) “Accessibility Code” means COMAR 05.02.02, exclusive of any local amendments or accessibility codes that may have been adopted.
- (2) “ADA” means the Americans with Disabilities Act of 1990, Public Law 101-336, 42 U.S.C. §12101 et seq.
- (3) “ADAAG” means the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities developed by the United States Architectural and Transportation Barriers Compliance Board, and adopted by the United States Department of Justice in Appendix A to 28 CFR 36.
- (4) “Addition” means an increase in building area, aggregate floor area, height, or number of stories of a structure.

Outdoor decks are considered additions.

- (5) “Advisory Council” means the Maryland Building Rehabilitation Code Advisory Council established by Article 83B, §6-505, Annotated Code of Maryland.
- (6) “ANSI A117.1-1986” means the 1986 Edition of American National Standard for Buildings and Facilities Providing Accessibility and Usability for Physically Handicapped People, which is incorporated by reference in the Accessibility Code.
- (7) “ASHRAE” means the American Society of Heating, Refrigeration, and Air-Conditioning Engineers.
- (8) “ASME Code” means the ASME Boiler and Pressure Vessel Code, as incorporated by reference in COMAR 09.12.01, and any amendments adopted by the Commissioner of Labor and Industry on the recommendation of the Board of Boiler Rules.
- (9) “Boiler Code” means, exclusive of any local codes or amendments that may have been adopted, the following:
 - (a) COMAR 09.12.01;
 - (b) The Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers;

- (c) The Inspection Code of the National Board of Boiler and Pressure Vessel Inspectors;
- (d) Code for Power Piping, B31.1 of the American Society of Mechanical Engineers;
- (e) Code for Controls and Safety Devices for Automatically Fired Boilers, CSD-1 of the American Society of Mechanical Engineers;
- (f) Code for Controls and Safety Devices, NFPA Series 85 of the National Fire Protection Association; and
- (g) Code for Chemical Plant and Petroleum Refinery Piping, B31.3 of the American Society of Mechanical Engineers.

(10) “Building Code” means the International Building Code, 2000 Edition, as incorporated by reference and amended in COMAR 05.02.07, exclusive of any local amendments or building codes that may have been adopted.

The Building Code and other codes referenced by MBRC are the codes as adopted by the State without local amendments.

(11) “Categories of work” means the nature and extent of construction work undertaken in an existing building. The following categories of work entail increased requirements respectively:

- (a) Repair;
- (b) Renovation;
- (c) Modification;
- (d) Reconstruction;
- (e) Change of occupancy; and
- (f) Addition.

(12) “Change of occupancy” means a change in the purpose or level of activity within a structure that involves a change in application of the requirements of the local building code.

As used in the MBRC, a change of occupancy occurs anytime a new code provision is triggered. For example, increasing the occupant load in an assembly occupancy from 90 to 110 people is a change of occupancy because additional code requirements apply in assembly occupancies with occupant loads over 100.

(13) “Complex rehabilitation project involving multiple codes” means a rehabilitation project or portion of a project that involves two or more construction codes listed in Regulation .07B of this chapter and is in:

- (a) One of the following categories of work:
 - (i) Addition;
 - (ii) Change of occupancy; or
 - (iii) Reconstruction; or
- (b) Any category of work and involves the installation of sprinklers.

A definition for the phrase “complex rehabilitation project involving multiple codes” is provided to help determine when the preliminary meeting addressed in Regulation .07 of this chapter is needed.

- (14) “Construction permit application” means an application made to a local jurisdiction for a permit or other government approval for a rehabilitation project.
- (15) “Dangerous” means a situation in which the stresses in any member, the condition of the building or any of its components or elements, or attachments, or other condition results in an overload exceeding 150 percent of the stress allowed for the member or material in the Building Code.

This definition is based on one found in the Uniform Code for the Abatement of Dangerous Buildings. The term is used in the MBRC in relation to structural loads. In other contexts, the term “hazardous” is used.

- (16) “Department” means the Department of Housing and Community Development.
- (17) “Electrical Code” means the National Electrical Code, 1996 Edition, as required by Article 38A, §60, Annotated Code of Maryland, exclusive of any local amendments or electrical codes that may have been adopted.
- (18) “Element of egress access,” for the purposes of the definition of reconstruction only, means a corridor as defined in §1002 of the Building Code.

The term “element of egress access” is used in the definition of reconstruction. A definition for this term is needed because, otherwise, any part of a space undergoing reconstruction could be considered an element of egress access.

- (19) “Elevator Code” means, exclusive of any local amendments or elevator codes that may have been adopted, the following provisions:
 - (a) Article 89, §49B, Annotated Code of Maryland;
 - (b) COMAR 09.12.61, 09.12.81, 09.12.82, and 09.12.83; and
 - (c) ANSI/ASME A17.1, with any amendments adopted by the Commissioner of Labor and Industry.

(20) “Energy Code” means that portion of the Building Code concerning energy conservation standards, exclusive of any local energy codes that may have been adopted.

(21) Equipment or Fixture.

(a) “Equipment or fixture” means any plumbing, heating, electrical, ventilating, air conditioning, refrigerating, and fire protection equipment, and elevators, dumb waiters, escalators, boilers, pressure vessels, and other mechanical facilities or installations, which are related to building services.

(b) “Equipment or fixture” does not include manufacturing, production, or process equipment.

(c) “Equipment or fixture” includes connections from building service to process equipment.

(22) “Existing building” means a building or structure that was erected and occupied or issued a certificate of occupancy at least 1 year before a construction permit application for that building or structure was made to a local jurisdiction.

Many jurisdictions in Maryland only recently began to regulate construction practices and issue certificates of occupancy. A building built prior to the issuance of permits or certificates of occupancy may still be a legally existing building.

The 1-year period is measured from the date the certificate of occupancy is issued. If a local jurisdiction issues a base building occupancy permit (e.g., for lobbies, stairs, and corridors) but issues separate occupancy permits for each tenant space, the period is measured for each space at the time the occupancy permit is issued for the specific space. In instances where an occupancy permit is issued and the building or space remains vacant, the period begins when the permit is issued.

(23) “Fire Prevention Code” means COMAR 29.06.01 as well as Article 38A, §§12A (smoke detection systems) and 12B (sprinklers), Annotated Code of Maryland, exclusive of any local amendments or fire codes that may have been adopted.

(24) “Group” means the use and occupancy classification defined in Chapter 3 of the Building Code, except that “Group R-3” means residential occupancies classified as R-3 in §310 of the Building Code and detached one-family and two-family dwellings and multiple single-family dwellings under the scope of the International Residential Code.

(25) “Historic building” means a building or structure that is:

(a) Listed or eligible for listing in the National Register of Historic Places;

(b) Designated as a historic property under local law; or

(c) Certified as a contributing resource within a National Register-listed or locally designated historic district.

Buildings may be determined eligible for listing on the National Register without actually being listed. However, these structures must meet the minimum eligibility criteria for National Register listing. The criteria and more information on the National Register Program can be found at <http://www.cr.nps.gov/nr/listing.htm> . Upon application, the Maryland Historical Trust can make an eligibility determination without going through the process of formally listing the property. The Maryland Historical Trust and your local historic preservation office can help you determine if your building is locally listed, is listed on the National Register, or may be National Register eligible.

(26) “Load-bearing element” means a column, girder, beam, joist, truss, rafter, wall, floor, or roof sheathing that supports a vertical load in addition to its own weight, or any lateral load, or both.

(27) “Local jurisdiction” means any of the 23 counties in Maryland, the City of Baltimore, and any municipal corporation in Maryland subject to the provisions of Article XI-E of the Maryland Constitution.

“Local jurisdiction” does not include the Washington Suburban Sanitary Commission or the Maryland National Capitol Park and Planning Commission.

(28) Materials and Methods Requirements.

(a) “Materials and methods requirements” means those requirements in the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, Energy Code, Elevator Code, or Accessibility Code that specify material standards, details of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

(b) “Materials and methods requirements” does not include the required quantity, fire-resistance, flame spread, acoustic or thermal performance, or other performance attribute.

The phrase “materials and methods requirements” is critical to understanding the requirements applicable to work in the Renovations category of work (Chapter 03 Renovations), and appears elsewhere as well.

(29) “Mechanical Code” means the International Mechanical Code, as incorporated by reference and amended in COMAR 09.15.05, exclusive of any local amendments or mechanical codes that may have been adopted.

(30) “Minimum Livability Code” means COMAR 05.02.03, exclusive of any local amendments or codes that may have been adopted.

(31) “Modification” means the reconfiguration of a space, the addition or elimination of a door or window, the reconfiguration or extension of a system, or the installation of additional equipment.

(32) “NFPA” means the National Fire Protection Association, Inc., 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

- (33) “Plumbing Code” means the National Standard Plumbing Code, as incorporated by reference and amended in COMAR 09.20.01, exclusive of any local amendments or plumbing codes that may have been adopted.
- (34) “Occupancy classification” means the classification of occupancies into groups in accordance with §302 of the Building Code.
- (35) “Reconstruction” means:
- (a) The reconfiguration of a space which affects an exit or element of egress access, as defined above in §B(18) of this regulation, shared by more than a single occupant;
 - (b) The reconfiguration of space such that the rehabilitation work area is not permitted to be occupied because existing means of egress and fire protection systems, or their equivalent, are not in place or continuously maintained; or
 - (c) Extensive modifications as defined in COMAR 05.16.04.

Reconstruction work triggers a specified list of life safety and some other improvements that are mostly limited to the work area intended by the building owner. Some of the life safety improvements (e.g., sprinkler requirements) are extended to an entire floor when the work area intended by the building owner exceeds 50 percent of the area of the floor. They extend beyond the floor when the intended work involves over 50 percent of the floor area of the building.

The term “single occupant” means single tenancy. If the term applied to one person, the reconstruction requirements could be triggered on any project that affected exit access for more than one person.

- (36) “Rehabilitation” means any work, as described by the categories of work defined in this regulation, undertaken in an existing building.
- (37) Rehabilitation Work Area.
- (a) “Rehabilitation work area” means that portion of a building affected by any renovation, modification, or reconstruction work as initially intended by the owner and indicated as such in the permit.
 - (b) “Rehabilitation work area” does not include other portions of the building where incidental work entailed by the intended work must be performed, and portions of the building where work not initially intended by the owner is specifically required by this subtitle.

For example, if a wall is being resurfaced, the wall is the rehabilitation work area. If the four walls of a room are being resurfaced, the room is the rehabilitation work area.

The rehabilitation work area includes only the areas that the project was originally intended to include. The definition ensures that unforeseen circumstances do not unintentionally trigger the supplemental requirements applicable to some projects in the reconstruction category of work.

(38) Renovation.

(a) “Renovation” means the change, strengthening, or addition of load-bearing elements, or the refinishing, replacement, bracing, strengthening, upgrading, or extensive repair of existing materials, elements, components, equipment or fixtures, or all of these.

(b) “Renovation” does not include reconfiguration of space or painting.

Laying carpet and hanging wallpaper are “renovations,” and the flammability of the materials is regulated under the Fire Prevention Code.

The line between “repair” and “renovation” often will depend on the scale of the project. For example, the replacement of a few windows in a 40-unit apartment building is a “repair”; the replacement of all of the windows is a “renovation.”

(39) “Repair” means the patching, restoration, or minor replacement of materials, elements, components, equipment, or fixtures for the purposes of maintaining these materials, elements, components, equipment, or fixtures in good or sound condition.

“Repair” and “renovation” involve no reconfiguration of any space. The difference between the two is one of quantity (*i.e.*, an extensive repair becomes a renovation) and the demarking line between them is left to the interpretation of Code users, and ultimately the authority having jurisdiction. Repairs may be made with like materials (with a few specific exceptions), even if those materials are no longer permitted by the Building Code, while renovations require the use of the materials and methods specified in the Building Code. In neither case does the MBRC require work above and beyond the level intended by the owner (except possibly accessibility improvements). Voluntary structural strengthening of a building, thermal improvement of the building envelope, asbestos and lead-based paint abatement, and similar work are considered renovations as long as they involve no reconfiguration of spaces, and as such would trigger no additional Rehabilitation Code requirements.

(40) “Secretary” means the Secretary of Housing and Community Development.

(41) “Technically infeasible” means making a change to a building when that change has little likelihood of being accomplished because:

(a) The existing structural conditions require the removal or alteration of a load-bearing member that is an essential part of the structural frame; or

(b) Other existing physical or site constraints prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with applicable requirements.

.04 CATEGORIES OF WORK.

A. Specific requirements are established for each work category in this subtitle. All work shall be classified into the following six categories:

- (1) Repair, as defined in Regulation .03B(39) of this chapter;
- (2) Renovation, as defined in Regulation .03B(38) of this chapter;
- (3) Modification, as defined in Regulation .03B(31) of this chapter;
- (4) Reconstruction, as defined in Regulation .03B(35) of this chapter;
- (5) Change of occupancy, as defined in Regulation .03B(12) of this chapter; and
- (6) Addition, as defined in Regulation .03B(4) of this chapter.

The following examples of work may help clarify the differences among these terms:

1. The removal or replacement of a wall or extensive portion of a wall is a renovation if the wall is replaced, a modification if the wall is removed and space is reconfigured, and a reconstruction if the wall is in an exit or shared corridor and is removed.
2. The removal or cutting of any load-bearing element is a renovation.
3. The removal or rearrangement of any part of a means of egress, or rearrangement of a part of a structure affecting egress requirements, is a modification if it affects egress within a tenant space, and a reconstruction if it affects shared egress.
4. Replacement or upgrading of the items listed below is a renovation. Addition to or relocation of these items is a modification.
 - i Any fire protection piping;
 - ii Water supply, sewer, drainage, gas, oil, waste, vent, or similar piping;
 - iii Electrical wiring, other than wiring for low voltage communication systems in one- or two-family dwellings;
 - iv Mechanical or other work affecting public health or general safety.
5. In an HVAC system with flexible supply ducts, the relocation of supply registers is a renovation.

B. Work of more than one category is permitted to be part of a single work project.

This section permits multiple categories of work to occur under a single permit without causing the rehabilitation work areas to be considered under the same category of work.

C. When a project includes one category of work in one building area and another category of work in a separate building area, each project area shall comply with the requirements of the respective category of work.

This section permits multiple separate rehabilitation projects to occur simultaneously in the same building. Each of the rehabilitation projects may be considered as separate projects when determining whether any supplemental requirements in Chapter 05 (Reconstruction) apply.

D. Modification and Reconstruction Work in One Project.

- (1) Requirements. When a project consisting of modifications and reconstruction is performed in the same rehabilitation work area, or in contiguous rehabilitation work areas, the project shall comply with the requirements applicable to a reconstruction.
- (2) Exception. An exception to the requirement of §D(1) is that when the reconstruction work area is less than 10 percent of the modification work area, the two shall be considered as independent rehabilitation work areas, and the respective requirements apply.

The requirement in Section D(1) is intended to prevent a situation where a reconstruction project (a “gut rehab”) is proposed, and the supplemental requirements specified for reconstruction are avoided by classifying most of the work area as undergoing only modification. The exception in Section D(2) is intended to avoid a situation where minor incidental reconstruction work could unintentionally trigger the supplemental requirements.

.05 COMPLIANCE AND ENFORCEMENT.

A. Compliance.

- (1) Requirements. Repairs, renovations, modifications, reconstruction, changes of occupancy, and additions shall conform to the requirements of this subtitle.
- (2) Equivalent Alternatives. This subtitle is not intended to prevent the use of any alternate material, alternate design, or alternate method of construction not specifically prescribed in this subtitle, if the alternate has been deemed to be equivalent and its use authorized by the authority having jurisdiction.

This language is modeled after Section 104.11 of the International Building Code (“Alternative materials, design and methods of construction and equipment”).

Many codes have similar language that allows an alternate material, design, or method of construction that provides an equivalent level of safety if approved by the authority having jurisdiction.

- (3) Other Alternatives. When compliance with this subtitle or with any other code as required by this subtitle is technically infeasible or would impose undue hardship because of structural, construction, or dimensional difficulties, the authority having jurisdiction may accept other alternative materials, design features, and operational features.

This paragraph allows the authority having jurisdiction to accept alternatives that may not be deemed to be the full safety equivalent in cases where the applicant can demonstrate that full compliance would impose a hardship. It is important that the authority having jurisdiction and design team maintain records of all approved compliance alternatives. These records may be needed in the future to document compliance with Chapter 03 (Renovation), Regulation .01C, which states that the "...work may not make the building less in conformance with...any previous approved alternative arrangements..." The authority having jurisdiction may require peer review of the proposed alternatives to judge their acceptability under this or the preceding paragraphs.

(4) Effective Date. The requirements of this subtitle, and the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, Energy Code, Elevator Code, or Accessibility Code referenced in this subtitle, are based on the respective codes in effect at the time of the issuance of the permit, and not on any subsequent amendments.

(5) Permit Expiration. Unless a different permit expiration period is established by the local jurisdiction, every permit issued shall become invalid unless the work on the site authorized by the permit is begun within 180 days after its issuance, or if the work authorized on the site by the permit is suspended or abandoned for a period of 180 days after the time the work is begun. Unless different permit extension procedures are established by a local jurisdiction, one or more extensions of not more than 180 days each are permitted when requests are submitted in writing and justifiable cause demonstrated.

All other local permitting procedures remain unchanged.

(6) Compliance with Other Codes.

(a) Buildings, elements, components, or systems in compliance with the current edition of the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, Energy Code, Elevator Code, or Accessibility Code are not required to comply with any more restrictive requirement of this subtitle.

The MBRC is not expected to impose more restrictive requirements than the codes for new construction. Section A(6)(a) provides permit applicants an option to use the codes for new construction in their design, and provides code officials a tool to review such permit applications without having to conduct a line-by-line comparison with the MBRC.

(b) Elements, components, and systems of existing buildings with features that exceed the requirements of the codes for new construction and not otherwise required as part of prior documented approved alternative arrangements may not be prevented by this subtitle from being modified as long as these elements, components, and systems remain in compliance with the applicable codes for new construction.

B. Nonconforming Rights (Existing Buildings). This subtitle is not to be interpreted to require the repair, renovation, modification, or reconstruction of existing buildings.

C. Permits. The rehabilitation work area, as defined in Regulation .03 of this chapter, shall be clearly identified on all construction permit applications, construction documents, and permits required by the authority having jurisdiction.

D. Appeals. Any appeal of issues under this subtitle is subject to the existing appeals process of the local jurisdiction, the Washington Suburban Sanitary Commission, or the Maryland National Capital Park and Planning Commission.

The MBRC Advisory Council will issue non-binding interpretations of the MBRC. The final decision will remain with the local jurisdiction.

E. Enforcement. This subtitle is enforceable by local authorities having jurisdiction using existing enforcement procedures.

.06 RELATIONSHIP TO OTHER CODES, RULES, AND ORDINANCES.

Work mandated by any of the following codes, rules, or ordinances that is not part of a rehabilitation project shall conform only to the requirements of those codes, rules, or ordinances and are not required to conform to this subtitle unless the document requiring the work so provides:

- A. Accessibility, housing, property maintenance, or fire prevention code;
- B. Any codes or ordinances that address dangerous or unsafe buildings or conditions; and
- C. Any licensing rule or ordinance adopted pursuant to law.

.07 PRELIMINARY MEETING.

A. If a building permit is required for a complex rehabilitation project involving multiple codes, at the request of the prospective permit applicant and payment of a fee, if required, before the submission of the construction permit application, the authority having jurisdiction, or the authority's designee, and individuals who are agency representatives in accordance with §B of this regulation shall meet with the prospective applicant to discuss plans for any proposed work or change of occupancy under this subtitle before the application for the permit is submitted.

Complex rehabilitation project is defined in Chapter 01 (Administration), Regulation .03B(13). The authority having jurisdiction is obligated to have a preliminary meeting for complex projects if the permit applicant requests one. The authority having jurisdiction may charge a fee for the preliminary meeting, and has authority to schedule the meeting at a reasonable time that is convenient for both the jurisdiction and the applicant.

B. The preliminary meeting, to the extent possible, shall include the officials responsible for permit approval and enforcement in the following areas, as may be applicable to the rehabilitation project:

- (1) Building Code;
- (2) Mechanical Code;
- (3) Plumbing Code;
- (4) Electrical Code;
- (5) Fire Prevention Code;
- (6) Boiler Code;
- (7) Energy Code;
- (8) Elevator Code; and
- (9) Local historic preservation ordinances.

C. When possible, a single meeting of all the parties shall be arranged.

The local authority having jurisdiction is not required to have all of the above listed people at the entire meeting. Only the people who are relevant to the project need to be present, and these people may not be required to attend the entire meeting.

D. The purpose of this preliminary meeting is for the prospective applicant to present its intentions for the proposed work to the responsible code officials so that together they can determine which specific requirements of this subtitle and the codes listed in §B of this regulation are to be applied to the proposed project. Decisions made at the preliminary meeting regarding the specific requirements of this subtitle and the codes listed in §B of this regulation that are to be applied to the proposed project are binding on the prospective applicant and the code officials, their respective agencies, and local jurisdictions unless circumstances arise which were unknown or could not be ascertained by the prospective applicant at the time of the preliminary meeting.

A variety of issues may be covered in the preliminary meeting. Among the more important are the extent of the work area and the categories of work that will apply, as these terms are defined in this chapter, and the necessary protective measures that will be required in buildings that will be partially occupied during the period of work.

The decisions made at the preliminary meeting are binding on both the design team and the code officials. The decisions must be made based upon full and accurate disclosure by the design team.

There may be times that the code officials cannot answer all questions or agree to protection methods at the preliminary meeting. The code official may feel the need to consult with others or conduct further review the material presented. In such instances, the code official should agree to provide an answer at a specific time. The time and answer given are binding.

E. For a rehabilitation project or portion of a project that is in the repair, renovation, or modification category of work, a preliminary meeting may be granted at the discretion of the authority having jurisdiction when a request for a preliminary meeting is made by the prospective applicant before the submission of the construction permit application.

.08 MARYLAND BUILDING REHABILITATION CODE ADVISORY COUNCIL.

The responsibilities and duties of the Advisory Council are as follows:

- A. Advise the Department on the development, adoption, and revisions to this subtitle;
- B. Provide technical advice on the interpretation of this subtitle to property owners, design professionals, contractors, local jurisdiction code officials, and local jurisdiction code appeal boards;

The Advisory Council's technical advice will be in the form of non-binding interpretations.

- C. To the extent possible, develop this subtitle in a way that avoids increased costs to local jurisdictions arising from implementation of this subtitle; and
- D. To the extent provided in the State budget, provide training on this subtitle for code officials and other public and private construction-related professionals.

.09 REVIEW PROCESS FOR PROPOSED AMENDMENTS BY LOCAL GOVERNMENTS.

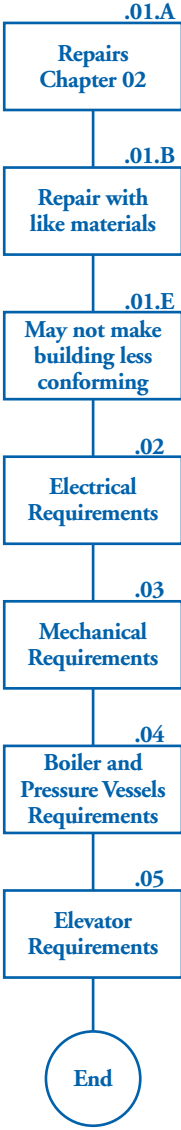
- A. A local government or an organization that represents local governments may propose an amendment to this subtitle.
- B. The proposed amendment shall be submitted in writing to the Director of the Advisory Council. The proposal shall identify the section or sections of this subtitle involved and include the proposed deletions or additions, the reasons for the request, and any supporting documentation.
- C. Within 10 business days of receipt, the Director shall forward the proposed amendment to the Advisory Council and provide a copy to the Secretary. The Advisory Council shall consider the proposed amendment not later than at its next regular meeting that is at least 30 days after the Director forwards the request.

D. The Advisory Council may request additional information from the local government or organization proposing the amendment, the staff of the Department, other State agencies, or others with experience in the subject matter of the proposed amendment.

E. Within 120 days of receipt by the Advisory Council of the proposed amendment or any requested additional information, whichever is later, the Advisory Council shall make a recommendation to the Secretary on whether to adopt, modify, or reject the proposed amendment.

F. The Secretary shall decide whether to adopt, modify, or reject the proposed amendment and whether to adopt any change to this subtitle necessary to implement that decision in accordance with the Administrative Procedure Act.

EVALUATION FLOW CHART FOR CODE REQUIREMENTS IN
CHAPTER 02 - REPAIRS



05.16.02 REPAIRS

.01 GENERAL REQUIREMENTS.

A. Repairs, as defined in COMAR 05.16.01.03, shall comply with the requirements of this chapter except as modified in COMAR 05.16.08 for repairs to historic buildings.

B. Work shall be done using like materials, or materials permitted by the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, or Elevator Code, as applicable.

The intent of the repair category of work is to maintain the existing level of safety in most instances. The provisions in this chapter are designed to maintain the existing level of safety and, in the case of some hazardous conditions, to require compliance with referenced codes. The MBRC requirements for repairs should be evaluated based upon maintaining or improving existing conditions.

C. Exceptions. The following are exceptions to the requirements of §§A and B of this regulation:

- (1) Hazardous materials no longer permitted, such as asbestos and lead-based paint, may not be used;
- (2) The following plumbing materials and supplies may not be used:
 - (a) All-purpose solvent cement;
 - (b) Flexible traps and tailpieces;
 - (c) Sheet and tubular copper and brass trap and tailpiece fittings less than B&S 17 gauge (0.045 inch); and
 - (d) Solder having more than 0.2 percent lead in the repair of potable water systems;

“All-purpose solvent cement,” which also may be called “transition glue,” is used to join different plastics to each other. Prohibiting it is intended to avoid joining incompatible plastic pipes.

- (3) When any water closet, urinal, lavatory faucet, kitchen faucet, or shower head is replaced, the replacement fixture shall comply with the water conservation requirements specified in the following paragraphs of the Plumbing Code: 7.4.2 (water closets), 7.5.2 (urinals), 7.6.2 (lavatory faucets), 7.10.2 (shower heads), and 7.11.2.b (kitchen faucets); and

(4) Replacement glazing in hazardous locations shall comply with the safety glazing requirements of §2406 of the Building Code, and paragraph 2403.1 cited in that section, except that glass-block walls, louvered windows, and jalousies may be repaired using like materials.

Hazardous locations are defined in Section 2406.2 of the International Building Code.

D. The work shall cause no diminution of structural strength.

E. The work may not make the building less in conformance with the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, Energy Code, Elevator Code, or Accessibility Code, or with any previously approved alternative arrangements, than it was before the repair was undertaken.

The intent is to prohibit a reduction in the level of compliance with the referenced codes.

.02 ELECTRICAL REQUIREMENTS.

A. Requirement. Existing electrical wiring and equipment undergoing repair shall be allowed to be repaired or replaced with like material.

On a non-grounded circuit with non-grounded receptacles, any defective non-grounded receptacles may be replaced with other non-grounded receptacles. If grounded receptacles are used, they must be grounded in accordance with the electrical code or as permitted in Regulation .04 of this chapter.

B. Exceptions. The following are exceptions to the requirement of §A of this regulation:

- (1) Electrical products shall comply with §110-3(b) "Installation and Use" of the Electrical Code;
- (2) Replacement of electrical receptacles shall comply with the requirements of §210-7(d) of the Electrical Code;
- (3) Plug fuses of the Edison-base type shall be used for replacements only when there is no evidence of over-fusing or tampering according to §240-51(b) of the Electrical Code;
- (4) For replacement of non-grounding-type receptacles with grounding-type receptacles and for branch circuit extensions only in existing installations that do not have an equipment grounding conductor in the branch circuit, the grounding conductor of a grounding-type receptacle outlet may be grounded to any accessible point on the grounding electrode system as described in §250-81 of the Electrical Code, or to any accessible point on the grounding electrode conductor;
- (5) Non-hospital grade receptacles in patient bed locations of Group I-2 shall be replaced with hospital grade receptacles, as required by NFPA 99; and

(6) Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the existing branch circuit for these appliances may be grounded to the grounded circuit conductor if all the conditions of §250-60 of the Electrical Code are met.

.03 MECHANICAL REQUIREMENTS.

A. Defective material or parts shall be replaced or repaired in such a manner as to preserve the original approval or listing.

B. Temporary repairs may not be made to a damaged heat exchanger.

.04 BOILERS AND PRESSURE VESSEL REQUIREMENTS.

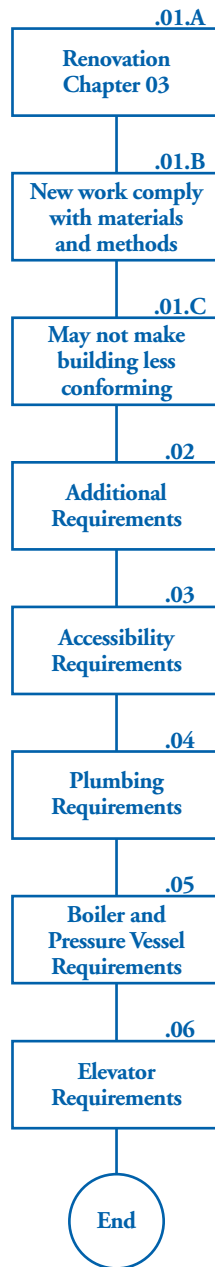
A. Repairs and replacements of fittings or appliances shall comply with the appropriate ASME Code.

B. Repairs of boilers and pressure vessels shall comply with the requirements specified in COMAR 09.12.01.27.

.05 ELEVATOR REQUIREMENTS.

All repairs shall be done in accordance with Rule 1200.4 of ASME A17.1-1996, and all subsequent amendments and revisions to it as adopted by the Commissioner of Labor and Industry.

EVALUATION FLOW CHART FOR CODE REQUIREMENTS IN
CHAPTER 03 - RENOVATIONS



5.16.03 RENOVATIONS

.01 GENERAL REQUIREMENTS.

A. Renovations, as defined in COMAR 05.16.01.03, shall comply with the requirements of this chapter except as modified in COMAR 05.16.08 for historic buildings.

B. All new work shall comply with the materials and methods requirements, as defined in COMAR 05.16.01.03.

Note that while repairs generally are permitted with like materials (whether or not those materials are still permitted by the codes for new construction), renovations must conform to the materials and methods requirements of the applicable codes. “Materials and methods requirements” is defined in Chapter 01 (Administration), Regulation .03B(28).

The “materials and methods” provisions allow existing elements to be replaced with new elements of similar construction, provided the existing level of compliance is not reduced. They also allow the existing number of elements to be maintained without increasing the quantity to meet code requirements for new construction.

C. Maintaining Conformity. The work may not make the building less in conformance with the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, Energy Code, Elevator Code, or Accessibility Code, or with any previously approved alternative arrangements, than it was before the renovation was undertaken, except that minor reductions in the clear opening dimensions of replacement doors and windows that result from the use of different materials are permitted, unless the reductions are prohibited by ADAAG.

This requirement is intended to prohibit items that result in a reduction in capacity to bear structural loads, or meet water supply or electrical load requirements. It is also intended to prohibit a reduction in existing light and ventilation levels to below the levels specified in the Building Code, or the existing levels, whichever is lower.

.02 ADDITIONAL REQUIREMENTS.

A. New wood paneling and textile wall coverings used as an interior finish shall comply with the flame spread requirements of the Fire Prevention Code.

B. New carpeting used as an interior floor finish material shall comply with the radiant flux requirements of the Fire Prevention Code.

The additional requirements specified above in Regulation .02A and .02B are necessary because wall coverings and interior finishes are explicitly excluded from Regulation .01B in the definition of “materials and methods requirements.”

C. Replacement glazing in hazardous locations shall comply with the safety glazing requirements of §2406 of the Building Code, and paragraph 2403.1 cited in the Building Code, except that glass-block walls, louvered windows, and jalousies may be repaired using like materials.

.03 ACCESSIBILITY REQUIREMENTS.

A. Dwelling Units.

- (1) Requirement. Dwelling units, as defined in COMAR 05.02.02.05, that are undergoing renovation shall comply with COMAR 05.02.02.07A(3).
- (2) Exceptions. The following are exceptions to the requirement of §A(1) of this regulation:
 - (a) Reroofing;
 - (b) Changes to mechanical and electrical systems that do not affect the usability of the building or facility;
 - (c) Dwelling units used on a transient basis and covered under §B or C of this regulation;
 - (d) Residential buildings consisting of less than four dwelling units; and
 - (e) Existing buildings and facilities, as defined in COMAR 05.02.02.05, that are undergoing renovation for the sole purpose of complying with the Americans with Disabilities Act, which requires removal of architectural barriers in existing buildings and facilities where removal is readily achievable.

B. State and Local Government Buildings and Facilities.

- (1) Requirement. State-owned and local government-owned buildings and facilities undergoing renovation shall comply with COMAR 05.02.02.07B.
- (2) Exceptions. The following are exceptions to the requirement of §B(1) of this regulation:
 - (a) Reroofing;
 - (b) Changes to mechanical and electrical systems that do not affect the usability of the building or facility;

- (c) Observation galleries less than 150 square feet and used primarily for security purposes;
- (d) Nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways, or nonpassenger freight elevators and frequented only by service personnel for repair purposes, including but not limited to elevator pits, elevator penthouses, and piping or equipment catwalks; and
- (e) Existing buildings and facilities undergoing renovation for the sole purpose of complying with the Americans with Disabilities Act, which requires removal of architectural barriers in existing buildings and facilities where removal is readily achievable.

C. All Other Buildings and Facilities.

- (1) Requirement. Buildings and facilities, as defined in COMAR 05.02.02.05, that are undergoing renovation, and not covered by §§A and B of this regulation, shall comply with COMAR 05.02.02.07C.
- (2) Exceptions. The following are exceptions to the requirement of §C(1) of this regulation:
 - (a) Reroofing;
 - (b) Changes to mechanical and electrical systems that do not affect the usability of the building or facility;
 - (c) Observation galleries less than 150 square feet and used primarily for security purposes;
 - (d) Nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways, or nonpassenger freight elevators and frequented only by service personnel for repair purposes, including but not limited to elevator pits, elevator penthouses, and piping or equipment catwalks; and
 - (e) Existing buildings and facilities undergoing renovation for the sole purpose of complying with the Americans with Disabilities Act, which requires removal of architectural barriers in existing buildings and facilities where removal is readily achievable.

.04 PLUMBING REQUIREMENTS.

A. Liquid Discharge.

- (1) In areas where public sanitary sewers are not available, existing structures that are being renovated and that discharge liquid wastes containing grease, flammable wastes, sand, solids, and other ingredients harmful to the building drainage system, shall either permanently plug all existing floor drains or retrofit all existing floor drains so as to allow them to flow into an approved sand interceptor that shall drain into a 1,000-gallon or larger approved holding tank.
- (2) An oil and water separator is not required when the waste discharges into a holding tank.

(3) Any renovation of an existing structure that discharges liquid wastes containing grease, flammable wastes, sand, solids, and other ingredients harmful to the building drainage system or which discharges other industrial waste waters may discharge into an on-site subsurface disposal system, if the facility's owner/operator applies for and obtains from the Maryland Department of the Environment a water discharge permit issued pursuant to the provisions of COMAR 26.08.01 — 26.08.04.

The language in section A above is derived from the State Plumbing Code in effect at the time the MBRC was developed.

B. Water Conservation. When a water closet, urinal, lavatory faucet, kitchen faucet, or shower head is replaced, the replacement fixture shall comply with the water conservation requirements specified in the following paragraphs of the Plumbing Code: 7.4.2 (water closets), 7.5.2 (urinals), 7.6.2 (lavatory faucets), 7.10.2 (shower heads), and 7.11.2.b (kitchen faucets).

.05 BOILER AND PRESSURE VESSEL REQUIREMENTS.

A. Installation or replacement of fittings, appliances, boilers, and pressure vessels shall be in accordance with the appropriate ASME Code.

B. A new or replacement boiler or pressure vessel installed in an existing building shall comply with the access and egress requirements specified in COMAR 09.12.01.02.

C. A boiler room in which a new or replacement boiler or pressure vessel is installed shall comply with the air and ventilation requirements specified in COMAR 09.12.01.03.

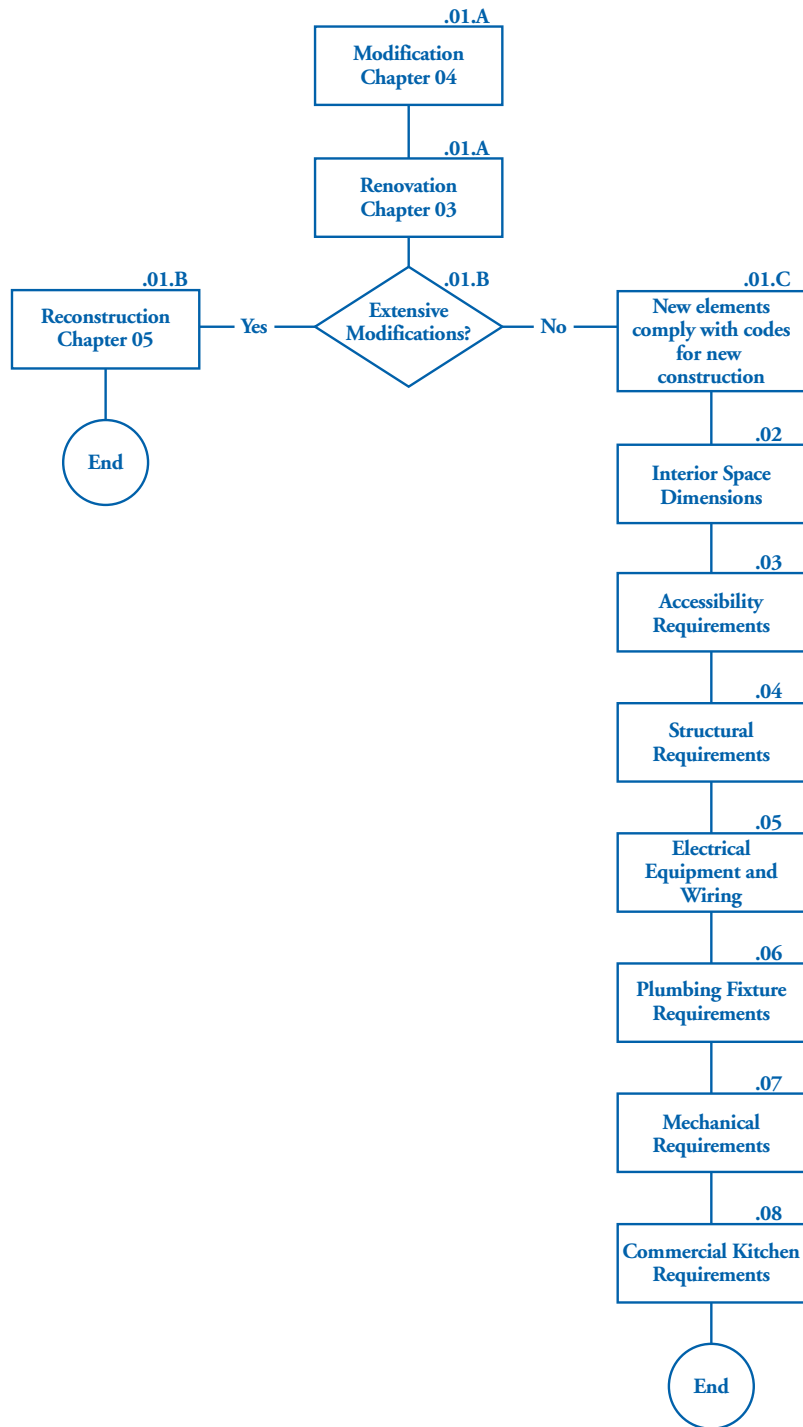
.06 ELEVATOR REQUIREMENTS.

A. Existing Elevators. Any renovation of an existing elevator shall comply with Part XII of the ASME A17.1-1996, and all subsequent amendments and revisions to it as adopted by the Commissioner of Labor and Industry.

B. New Elevators. The installation of new elevators shall comply with COMAR 05.16.04.01C.

The new elevator referenced above in Regulation .06B is a replacement elevator. The installation of an elevator in an occupancy where no elevator previously existed should be categorized as at least in the "modification" category of work.

EVALUATION FLOW CHART FOR CODE REQUIREMENTS IN
CHAPTER 04 - MODIFICATIONS



05.16.04 MODIFICATIONS

.01 GENERAL REQUIREMENTS.

A. General Modifications.

(1) Modifications, as defined in COMAR 05.16.01.03, shall comply with the requirements of this chapter except as modified in COMAR 05.16.08 for historic buildings.

(2) Work shall comply with all the requirements of COMAR 05.16.03.

Section A(2) mandates compliance with Chapter 03 (Renovation), in addition to Chapter 04 (Modification) for “modification” projects. Existing elements involved in the work must comply only with the materials and methods requirements of the Building Code, as well as with the additional requirements of Chapter 03 (Renovations).

(3) The modification work may not increase the extent of noncompliance with the requirements of COMAR 05.16.05 or create noncompliance with those requirements that did not previously exist.

Chapter 05 (Reconstruction) establishes life safety requirements for buildings undergoing reconstruction that are different than the requirements in the Building Code and Fire Prevention Code for new construction. This sub-section prevents the existing levels of safety and compliance from being reduced to a level below the level set in Chapter 05 (Reconstruction).

B. Extensive Modifications.

(1) Entire Building or Occupancy. The modification of an entire building or an entire occupancy classification within a building is considered as a reconstruction and shall comply with the requirements of COMAR 05.16.05 for the applicable occupancy, except that modification work that is exclusively plumbing, mechanical, fire protection system, or electrical is not considered a reconstruction, regardless of its extent.

Anytime modification level work is conducted throughout all of a single occupancy group within a building, or throughout the entire building, the proper category of work is reconstruction.

(2) 50 Percent Building Area. When the total area of all the rehabilitation work areas included in a modification exceeds 50 percent of the area of the building, the work is considered as a reconstruction and shall comply with the requirements of COMAR 05.16.05 for the applicable occupancy, except that rehabilitation work areas in which the modification work is exclusively plumbing, mechanical, fire protection system, or electrical are not included in the computation of total area of all rehabilitation work areas.

The trigger for this provision is 50% of building area. Area was chosen over a cost trigger to simplify the requirement. The requirement states “building area” without specifying net or gross area. The authority having jurisdiction may choose between the two.

C. Newly Constructed Elements.

- (1) Requirement. All newly constructed elements, components, and systems, including the installation of new elevators, boilers, and pressure vessels, shall comply with the requirements of the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, Energy Code, Elevator Code, and Accessibility Code.
- (2) Exceptions. The following are exceptions to the requirement of §C(1) of this regulation:
 - (a) Openable windows may be added without requiring compliance with the light and ventilation requirements of the Building Code; and
 - (b) Newly installed electrical equipment shall comply with the requirements of Regulation .05 of this chapter.

The addition of a door or window, as specifically included in the definition of modification in Chapter 01 (Administration), is considered to be a newly constructed element, and, hence the need for exception Section C(2)(a) above.

Some additional clarification on newly constructed elements: Modification of an existing tenant separation is covered by Regulation .01A(2) (General Modifications), but construction of a new tenant separation at a different location is covered by Regulation .01C (Newly Constructed Elements). A new enclosure of an existing shaft (not an exit stair, which would be a reconstruction) is covered by Regulation .01A(2). A new enclosure of a new shaft is covered by Regulation .01C.

.02 INTERIOR SPACE DIMENSIONS.

Newly configured spaces may be considered newly constructed elements in some situations.

The MBRC regulates interior space dimensions in R-1 and R-2 occupancies.

A. Plan Dimension. In Groups R-1 and R-2, when habitable spaces as defined in Chapter 2 of the Building Code are created in previously unoccupied space, other than a kitchen, they may not be less than 7 feet in any plan dimension.

B. Ceiling Height.

- (1) Requirement. In Groups R-1 and R-2, when habitable spaces as defined in Chapter 2 of the Building Code are created in previously unoccupied space, they shall have a ceiling height of not less than 7 feet.

(2) Exceptions. The following are exceptions to the requirement of §B(1) of this regulation:

- (a) Beams, girders, ducts, or pipes spaced not less than 4 feet on center and projecting not more than 6 inches below the required ceiling height; and
- (b) Rooms with a sloped ceiling.

(3) For rooms with a sloped ceiling, the prescribed ceiling height is required for at least 35 square feet of the floor area of the room. Any portion of the room measuring less than 5 feet from the finished floor to the finished ceiling is not considered usable floor area and may not be included in any computation of the minimum usable floor area.

C. Floor Area. In Group R-2, when habitable spaces as defined in Chapter 2 of the Building Code are created in previously unoccupied space, other than a kitchen, they shall have a net floor area of not less than 70 square feet.

.03 ACCESSIBILITY REQUIREMENTS.

Modifications shall comply with COMAR 05.16.03.03.

.04 STRUCTURAL REQUIREMENTS.

The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that no dangerous condition is created. Structural elements that are uncovered during the course of the modification and that are found to be unsound or dangerous shall comply with the load requirements of Chapter 16 of the Building Code and the applicable material stress requirements of Chapters 19 (Concrete), 20 (Aluminum), 21 (Masonry), 22 (Steel), or 23 (Wood) of the Building Code.

The term “dangerous” is defined in Chapter 01 (Administration), Regulation .03B(15).

.05 ELECTRICAL EQUIPMENT AND WIRING REQUIREMENTS.

A. Newly Installed Electrical Equipment and Wiring.

(1) Requirement. All newly installed electrical equipment and wiring relating to work done in any rehabilitation work area shall comply with the materials and methods requirements as defined in COMAR 05.16.01.03.

(2) Exception. The following is an exception to §A(1) of this regulation: Electrical equipment and wiring in newly installed partitions and ceilings shall comply with all applicable requirements of the Electrical Code.

Electrical work conducted in existing elements must comply with the “materials and methods” provision. Electrical work conducted in new elements must comply with the current electrical code.

B. Existing Wiring. Existing wiring in all rehabilitation work areas in Groups A-1, A-2, A-5, H, and I shall be upgraded to meet the materials and methods requirements as defined in COMAR 05.16.01.03.

Section B requires that all electrical systems in the rehabilitation work area in buildings in Groups A-1, A-2, A-5, H, and I be brought into compliance with at least the materials and methods provisions. The upgrades are required even when no electrical work was intended.

C. Service and Feeders in Groups R-2, R-3, and R-4.

(1) Requirement. Service to each existing dwelling unit in a rehabilitation work area shall be a minimum of 100 ampere, three-wire capacity, and service equipment shall be dead front having no live parts exposed by which accidental contact could be made. Type “S” fuses shall be installed in accordance with §§240-53 and 240-54 of the Electrical Code when fused equipment is used.

(2) Exception. The following is an exception to §C(1) of this regulation: Existing service of 60 ampere, three-wire capacity, and feeders of 30 ampere or larger two-wire or three-wire capacity, shall be accepted if adequate for the electrical load being served.

D. Other Requirements for Groups R-2, R-3, and R-4. When the rehabilitation work area includes any of the following areas within a dwelling unit, the following requirements apply:

(1) All enclosed areas, other than closets, kitchens, basements, garages, hallways, laundry areas, and bathrooms shall have a minimum of two duplex receptacle outlets or one duplex receptacle outlet and one ceiling-type or wall-type lighting outlet;

(2) Kitchen areas shall have a minimum of two duplex receptacle outlets and a hard-wired lighting outlet, and at least one of the required duplex receptacles shall be provided to serve counter space;

(3) Laundry areas shall have a minimum of one duplex receptacle outlet located near the laundry equipment and installed on an independent circuit;

(4) Ground fault circuit interruption shall be provided on newly installed receptacle outlets if required by §210-8(a) of the Electrical Code;

(5) At least one lighting outlet shall be provided in every bathroom, hallway, stairway, attached garage, and detached garage with electric power, and to illuminate outdoor entrances and exits;

(6) At least one lighting outlet shall be provided in utility rooms and basements when these spaces are used for storage or contain equipment requiring service;

(7) Clearance for electrical service equipment shall be provided in accordance with §110-16 of the Electrical Code; and

(8) When the rehabilitation work area includes spaces converted into kitchen or laundry areas, receptacle outlets in these areas shall comply with the applicable requirements of §210-52 (a), (b), (c), and (f) of the Electrical Code.

Any time a modification level rehabilitation project takes place in any of the areas listed, all relevant provisions of Section D must be met. Section D sets the minimum number of receptacles for specific spaces.

E. When the work changes an existing space in which ground fault circuit interruption is not required into a space in which this protection is required by §§210-8(a) and (b) (dwelling unit locations, and all bathrooms and rooftops), 555-3 (boathouses), 511-10 (commercial garages), 620-85 (elevators, escalators, and moving walkways), 517-20 and 517-21 (health care facilities), 422-8(d)(3) (high-pressure spray washing appliances), 680-70 (hydromassage bathtubs), 550-8(b) and 550-23(d) (mobile homes), 530-73(a)(1) (motion picture and TV studios), and 680-6(a) (permanently installed pools) of the Electrical Code, existing receptacle outlets shall be provided with this protection in accordance with the Electrical Code.

.06 PLUMBING FIXTURE REQUIREMENTS.

When the rehabilitation work area is more than 50 percent of the gross floor area of the story on which the work area exists as defined in §1002 of the Building Code, and the occupant load will be increased by at least 20 percent as a result of the modification, plumbing fixtures shall be provided on the basis of the increased occupant load in the rehabilitation work area in quantities and locations specified in §7.21 of the Plumbing Code on the basis of the increased occupant load.

Both 50% of the floor area and a 20% increase in occupant load are required to trigger Regulation .06.

.07 MECHANICAL REQUIREMENTS.

These requirements are intended to allow existing ventilation systems in reconfigured spaces to be upgraded rather than to require the installation of new systems.

A. Reconfigured Spaces.

(1) All reconfigured spaces intended for occupancy and all spaces converted to habitable or occupiable space in any rehabilitation work area shall be provided with either natural or mechanical ventilation.

(2) Natural ventilation shall be provided by the minimum openable area to the outdoors of 4 percent of the floor area being ventilated, and shall comply with the requirements of §402 of the Mechanical Code.

Section 402 of the Mechanical Code refers to Chapter 12 of the Building Code.

(3) Newly installed mechanical ventilation systems shall comply with the requirements of §403 of the Mechanical Code.

(4) Existing mechanical ventilation systems shall comply with the requirements of §B of this regulation.

B. In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, reconfigured, or extended shall be capable of providing not less than 5 cubic feet per minute (cfm) per person of outdoor air and not less than 15 cubic feet/minute of ventilation air per person, or not less than the amount of ventilation air determined by the Indoor Air Quality Procedure of ASHRAE Standard 62-1999.

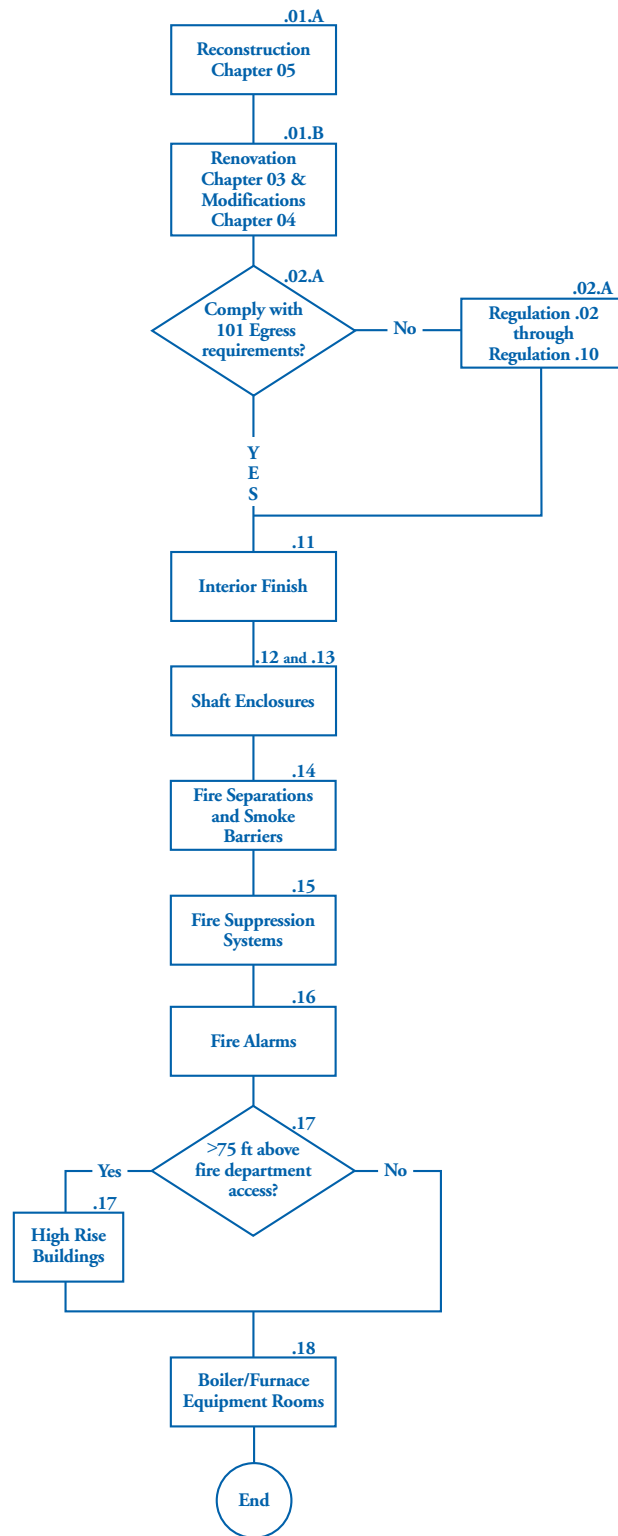
C. All newly introduced devices, equipment, or operations that produce airborne particulate matter, odors, fumes, vapor, combustion products, gaseous contaminants, pathogenic and allergenic organisms, and microbial contaminants in such quantities as to adversely affect or impair health or cause discomfort to occupants shall be provided with an exhaust system in compliance with Chapter 5 of the Mechanical Code or a means of collection and removal of the contaminants. The exhaust shall discharge directly to an approved location at the exterior of the building.

.08 COMMERCIAL KITCHEN REQUIREMENTS.

When the rehabilitation work area includes a commercial kitchen and the modification includes reconfiguration or extension of cooking equipment or the installation of additional cooking equipment, existing grease ducts, exhaust equipment, and kitchen hoods shall be brought into compliance with all the requirements in §§506 and 507 of the Mechanical Code.

This section requires that when any portion of a commercial kitchen exhaust system is modified, the entire system must be made to comply with the referenced sections of the Mechanical Code.

EVALUATION FLOW CHART FOR CODE REQUIREMENTS IN
CHAPTER 05 - RECONSTRUCTION



05.16.05 RECONSTRUCTION

.01 GENERAL REQUIREMENTS.

A. Reconstruction work, as defined in COMAR 05.16.01.03, shall comply with the requirements of this chapter except as modified in COMAR 05.16.08 for historic buildings.

B. Compliance with Previous Chapters.

(1) Requirement. Work shall comply with all the requirements of COMAR 05.16.03 and 05.16.04.

Section B(1) mandates compliance with Chapters 03 (Renovation) and 04 (Modification), in addition to Chapter 05 (Reconstruction), for “reconstruction” projects. Existing elements involved in the work must comply only with the materials and methods requirements of the building code.

(2) Exceptions. The following are exceptions to the requirement of §B(1) of this regulation:

(a) Buildings in which the reconfiguration of space affecting exits or shared elements of egress access is exclusively the result of compliance with the accessibility requirements of COMAR 05.16.03.03 are not required to comply with this chapter;

(b) Existing dead end corridors may be extended and new dead end corridors may be added in accordance with Regulation .07 of this chapter; and

(c) Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced is not required to comply with the maximum riser height and minimum tread depth requirements of the Building Code.

Exception (a) ensures that renovation work and modification work do not trigger reconstruction merely due to compliance with Accessibility Code requirements.

Exception (b) is needed because, without it, Regulation .07 of this chapter, which establishes dead-end corridor requirements in reconstruction projects, would conflict with the application of Regulation .01C of Chapter 03 (Renovation), which prohibits making the building less conforming with the Building Code.

Exception (c) is needed because a replacement stairway in a reconstruction project is a newly constructed element, which must be exempted from the application of Chapter 04 (Modifications), Regulation .01C, which requires that newly constructed elements comply with the Building Code.

C. When the term “rehabilitation work area” is used in this chapter, it includes only the area affected by reconstruction work, and areas covered by COMAR 05.16.01.04B and D. Other rehabilitation work areas affected exclusively by renovation or modification work are not included in the rehabilitation work area that needs to comply with this chapter.

Section C implicitly states that multiple rehabilitation projects of different categories of work may take place at the same time and be treated as separate projects.

.02 MEANS OF EGRESS REQUIREMENTS.

A. General. Except when the rehabilitation work area and the means of egress serving the rehabilitation work area comply with NFPA 101 as incorporated and amended in the Fire Prevention Code, the means of egress shall comply with the requirements of Regulations .02 — .10 of this chapter.

Many requirements in this section differ from the requirements for new construction. This section does not address all means of egress provisions contained in the Building Code (*e.g.*, minimum widths, travel distance, corridor wall fire resistance ratings). The philosophy contained in Chapter 03 (Renovation), Regulation .01C (triggered by Regulation .01B of this chapter) is to prohibit a reduction of the level of safety below the level that existed prior to the reconstruction. At the same time, the authority having jurisdiction may determine that an extreme deficiency (*e.g.*, an 18-inch corridor) is a hazard that must be corrected. In addition, Chapter 04 (Modification), Regulation .01C (triggered by Regulation .01B of this chapter) requires that newly constructed elements, such as a new door opening or a new corridor, must comply with the Building Code.

The reference to NFPA 101 includes the alternative approaches recognized by NFPA 101, such as those contained in NFPA 101A. NFPA 101A contains a methodology to evaluate the level of life safety in health care occupancies (Chapter 3), detention and correctional occupancies (Chapter 4), residential board and care occupancies (Chapter 6), and business occupancies (Chapter 7).

B. Number of Exits Requirement. Every story used for human occupancy on which there is a rehabilitation work area shall be provided with the minimum number of exits required by the Fire Prevention Code.

C. Exceptions.

- (1) Exceptions to the requirement of §B of this regulation are provided in this section.
- (2) When more than one exit is required by the Fire Prevention Code, an existing or newly constructed fire escape, complying with the following limitations, is accepted as providing one of the required means of egress unless determined by the authority having jurisdiction to be hazardous for use under emergency exiting conditions:
 - (a) All occupants shall have unobstructed access to the fire escape without having to pass through a room that can be locked;
 - (b) Access to a fire escape shall be through a door, except that windows are permitted from single dwelling units or guest rooms in Groups R-1, R-2, and I-1 or when serving spaces having a maximum occupant load of 10 in other occupancies;
 - (c) In all buildings of Group E, up to and including the 12th grade, buildings of Group I, rooming houses, and child care centers, ladders of any type are prohibited on fire escapes used as a required means of egress; and
 - (d) Newly constructed fire escapes are permitted only when permitted by the Fire Prevention Code and when exterior stairs cannot be used because of lot lines limiting stair size or because of the sidewalks, alleys, or roads at grade level.
- (3) New fire escapes may not incorporate ladders or access by windows.
- (4) Slidescapers or safety chutes are permitted as allowed by the Fire Prevention Code.
- (5) Except in buildings of Groups H and I, rooming houses, and child care centers, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed 50 and the exit access travel distance does not exceed 75 feet.
- (6) In buildings of Group R-2 that are equipped throughout with an automatic fire sprinkler system, only one exit is required from basements or stories below grade.
- (7) In buildings of Group R-2 that are not equipped throughout with an automatic fire sprinkler system, a single exit is permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an approved window providing a clear opening of at least 5 square feet in area, a minimum net clear opening of 24 inches in height and 20 inches in width, and a sill height of not more than 44 inches above the finished floor.
- (8) In multi-level dwelling units in buildings of Group R-1 or R-2, an exit is not required from each level of the dwelling unit, if the following conditions are met:
 - (a) The building in which these dwelling units are contained is of Type I or Type II construction and the travel distance within the dwelling unit does not exceed 75 feet; or

(b) The building in which these dwelling units are contained is not more than three stories in height and all third floor space is part of one or more dwelling units located in part on the second floor and no habitable room within the dwelling unit has a travel distance that exceeds 50 feet from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.

This chapter modifies the traditional building code requirement for exit enclosures. A stairway that is enclosed in accordance with Regulations .12 and .13 of this chapter could qualify as an exit.

.03 MEANS OF EGRESS REQUIREMENTS FOR MEZZANINES.

A. Requirement. Mezzanines in the rehabilitation work area and with an occupant load of more than 50 or in which the travel distance to an exit exceeds 75 feet shall have access to at least two independent means of egress.

B. Exception. An exception to the requirement of §A of this regulation is that two independent means of egress are not required when the travel distance to an exit does not exceed 100 feet and the building is protected throughout with an automatic sprinkler system.

This provision is consistent with the requirements contained in the Fire Prevention Code regulating the means of egress within buildings. NFPA 101 permits a single means of egress from a mezzanine in a sprinklered building if the travel distance does not exceed 100 feet.

.04 MEANS OF EGRESS REQUIREMENTS FOR SINGLE EXIT BUILDINGS.

A. In buildings having only one exit, the single exit condition serving the rehabilitation work area may continue as follows:

- (1) In buildings permitted to have a single exit in accordance with the Fire Prevention Code;
- (2) In buildings of Group R-3;
- (3) In buildings of Groups R-1, R-2, and R-4, from floors that are not more than 16 feet above exterior grade, except that in community residences for the developmentally disabled, the maximum occupant load, excluding staff, may be no more than 12;
- (4) In buildings of Groups R-1, R-2, and R-4, not more than two stories in height, from floors that are not more than 16 feet above exterior grade, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet, except that in community residences for the developmentally disabled, the maximum occupant load, excluding staff, may be no more than 12; the minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour;

- (5) Any building of Group R-2 of three stories or less may have a single exit if the following conditions are met:
- (a) The stairway is separated from the rest of the building by construction having a minimum fire-resistance rating of 1 hour with self-closing 1-hour fire doors protecting all openings between the stair enclosure and the building;
 - (b) The stairway does not serve more than one-half story below the level of exit discharge;
 - (c) All corridors serving as access to exits from the rehabilitation work area have a minimum fire-resistance rating of 20 minutes;
 - (d) There is not more than 35 feet (10.7 meters) of travel distance from the entrance door of any living unit in the rehabilitation work area to an exit; and
 - (e) A 20-minute fire-resistance rated horizontal and vertical separation between living units in the rehabilitation work area is provided;
- (6) In buildings of Group R-2 of any height with not more than four living units per floor, with a smokeproof enclosure or outside stair as an exit, and with this exit within 20 feet (6.1 meters) of travel to the entrance doors to all living units served by them;
- (7) In buildings of Groups B, F-2, and S-2, not more than two stories in height, which are not greater than 3,000 square feet per floor, when the exit access travel distance does not exceed 75 feet; the minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour; and
- (8) In open parking structures where vehicles are mechanically parked.

B. Except as permitted by the Fire Prevention Code, all buildings of Group A with an occupant load of 100 or more shall be provided with a main entrance/exit capable of serving as the main exit with an egress capacity for at least one-half the total occupant load. The remaining exits shall be capable of providing one-half of the total required exit capacity.

.05 CAPACITY OF MEANS OF EGRESS.

A. Requirements.

- (1) The capacity of the means of egress in each rehabilitation work area and throughout the egress path of each rehabilitation work area shall be sufficient for the occupant load.
- (2) Capacity shall be determined in accordance with the Fire Prevention Code.

| See commentary for Section B(2) following.

(3) The occupant load of a space shall be determined by whichever of the following methods provides the higher number:

- (a) Divide the floor area by the occupant load factor for this use as provided in the Fire Prevention Code; and
- (b) The actual number of occupants for whom the rehabilitation work area is designed.

B. The following are exceptions to the requirement of §A of this regulation:

- (1) The authority having jurisdiction may establish the occupant load as the number of persons for which existing means of egress is adequate, if measures are established to prevent occupancy by a greater number of persons; and
- (2) When the building was previously determined to have adequate egress capacity using the Building Code.

Exception B(1) may permit an occupant load less than the load calculated using the appropriate occupant load factor. In all cases, the occupant load used should be a realistic number that is unlikely to be exceeded. Additional precautions should be taken to ensure that the occupant load is not exceeded, such as the issuance of a specific number of tickets or entry passes in a place of assembly.

An example of a condition that authorities having jurisdiction have approved in the past is the limitation of 49 people in a meeting room area of a hotel, due to either door swing or only one means of egress from the room.

Exception B(2) allows buildings designed under the Building Code to continue to use the Building Code to calculate the egress capacity. Many buildings in Baltimore City and other buildings built before the implementation of the Fire Prevention Code may find this provision helpful.

.06 EGRESS DOORWAYS.

A. General Requirements.

- (1) Requirement. In any rehabilitation work area, all rooms and spaces having an occupant load greater than 50 or in which the travel distance exceeds 75 feet shall have a minimum of two egress doorways.
- (2) Exceptions. The following are exceptions to the requirement of §A(1) of this regulation:
 - (a) Storage rooms having a maximum occupant load of 10;
 - (b) When the rehabilitation work area is served by a single exit in accordance with Regulation .04 of this chapter; and

(c) When a single means of egress is permitted by the Fire Prevention Code.

B. Requirements for Buildings of Group I-2. In buildings of Group I-2, any patient sleeping room or suite of rooms greater than 1,000 square feet in the rehabilitation work area shall have a minimum of two egress doorways, except when the room or suite of rooms is not greater than 2,500 square feet and does not contain patient sleeping rooms.

C. Corridor Door Requirements.

(1) General Requirements. Corridor doors in the rehabilitation work area may not be constructed of hollow core wood and may not contain louvers. All dwelling unit, guest room, or rooming unit corridor doors in rehabilitation work areas in buildings of Groups R-1, R-2, R-4, and I-1 shall be at least 1-3/8 inch solid core wood or approved as equal with approved door closers. They may not have any glass panels other than approved wired glass or other approved glazing material in metal frames. All replacement doors shall be 1-3/4 inch solid bonded wood core or approved equal, unless the existing frame will accommodate only a 1-3/8 inch door.

Hollow core wood doors in corridors are prohibited in all occupancy classifications unless permitted in Paragraph 2 below.

The intent is to have at least 1-3/4 inch corridor doors in all unsprinklered corridors, exclusive of single family homes. If the existing door is 1-3/8 inch solid core, it may remain. All replacement doors must be 1-3/4 inch unless a 1-3/4 inch door will not fit in the frame, in which case a 1-3/8 inch door may be used.

Closing devices are required on 1-3/8 inch, 1-3/4 inch, and “equivalent” doors.

(2) Exceptions. The following are exceptions to the requirement of §C(1) of this regulation:

- (a) Corridor doors within a dwelling unit or guestroom;
- (b) Existing doors meeting the requirements of HUD “Guideline on Fire Ratings of Archaic Materials and Assemblies” for a rating of 15 minutes or better;
- (c) Existing doors in buildings protected throughout with an approved automatic sprinkler system that are required only to resist smoke, do not contain louvers, and are reasonably tight fitting;
- (d) In group homes with a maximum of 15 occupants defined as having prompt evacuation capability in accordance with the Fire Prevention Code, and protected with an approved automatic detection system, closing devices may be omitted;
- (e) Door assemblies having a fire protection rating of at least 20 minutes; and
- (f) Corridor doors complying with the Fire Prevention Code.

While not requiring fire doors, this section provides criteria that result in a relatively effective barrier to fire spread through a door opening in a corridor wall. Any fire door with at least a 20 minute fire protection rating should be considered as equivalent, since a 1-3/4 inch solid bonded wood core door can typically achieve a 20 minute fire protection rating (without the hose stream).

D. Transom Requirements. Except where transoms are permitted by the Fire Prevention Code, in all buildings of Groups I-1, R-1, R-2, and R-4 all transoms in corridor walls in rehabilitation work areas shall be either glazed with 1/4 inch wired glass set in metal frames or have other glazing assemblies with a fire protection rating as required for the door and permanently secured in the closed position or sealed with materials consistent with the corridor construction.

Transoms were originally installed in buildings for light and ventilation purposes. If they are open or if they fail during a fire, the opening is a convenient method for smoke to spread into the corridor. Therefore, existing transoms need to be secured in the closed position and constructed to offer some degree of resistance to the spread of fire.

Regulation .06C of this chapter contains requirements for the protection of door openings in corridor walls for certain use groups. This section requires that the transom must have the same fire protection rating as required for the door. Where a 20-minute rated door is permitted (*e.g.*, 1-3/4 inch solid bonded wood core), glazing assemblies having a fire protection rating of 20 minutes without the hose stream test also should be permitted. Where Regulation .06C of this chapter contains requirements that the door be capable of resisting the passage of smoke, the transom should be permanently secured in the closed position and sealed, but need not have a fire protection rating.

E. Requirements for Other Corridor Openings. In any rehabilitation work area, any other sash, grill, or opening in a corridor, and any window in a corridor not opening to the outside air, shall be sealed with materials consistent with the corridor construction.

F. Floor Area Supplemental Requirements. Except for corridors within a tenant space that is entirely outside the rehabilitation work area, the requirements of §§C — E of this regulation apply on the entire floor when the rehabilitation work area exceeds 50 percent of the floor area.

G. Door Swing. In the rehabilitation work area and in the egress path from any rehabilitation work area to the exit discharge, all egress doors serving an occupant load greater than 50 shall swing in the direction of exit travel.

An occupant load of 50 is a common threshold to regulate the direction of swing of the door. Non-swing doors are allowed only as permitted by the Building Code or Fire Prevention Code.

The MBRC does not address non-swinging doors. To use a non-swinging door, the designer would have to offer an alternate design as allowed by Chapter 01 (Administration), Regulations .05A(2) or A(3).

See Regulation .06J Floor Area Supplemental Requirement below.

H. Closing Devices. Except when exit enclosure is not required by the Fire Prevention Code, in any rehabilitation work area all doors opening onto an exit passageway at grade or exit stair shall be self-closing or automatic closing by listed closing devices.

Exit stairs and exit passageways that are required to be enclosed should be protected with the appropriate opening, which should be self-closing or automatic closing.

There are additional door closer requirements in Regulation .06C above.

See Regulation .06J Floor Area Supplemental Requirement below.

I. Exit Hardware. In any rehabilitation work area, and in the egress path from any rehabilitation work area to the exit discharge, in a building or portions of a building of Groups A or E with an occupant load greater than 100, all required exit doors equipped with latching devices shall be equipped with approved panic or fire exit hardware.

See Regulation .06J Floor Area Supplemental Requirement below.

J. Floor Area Supplemental Requirements. Except when the means of egress are within a tenant space that is entirely outside the rehabilitation work area, the requirements of §§G — I of this regulation apply on the entire floor when the rehabilitation work area exceeds 50 percent of the floor area.

K. Remote Power Unlocking Capability. Except for locking arrangements complying with the Fire Prevention Code, rehabilitation work areas in buildings of Group I-3 having remote power unlocking capability for more than 10 locks shall be provided with an emergency power source for the locks. Power shall be arranged to automatically operate upon failure of normal power within 10 seconds and for a duration of not less than 1 hour.

This paragraph does not mandate remote unlocking capability, but if remote power unlocking is provided, the emergency power requirement applies where there are more than 10 locks. A means should be provided at the door to allow for the manual operation of the lock in case the remote unlocking capability fails.

.07 MEANS OF EGRESS — DEAD-END CORRIDORS.

A. Requirement. Existing dead-end corridors in any rehabilitation work area may not exceed 35 feet. Newly constructed dead-end corridors shall comply with the Fire Prevention Code.

B. Exceptions. The following are exceptions to the requirement of §A of this regulation:

- (1) When dead-end corridors of greater length are permitted by the Fire Prevention Code;
- (2) In other than Groups A and H, the maximum length of an existing dead-end corridor shall be 50 feet in buildings equipped throughout with an automatic fire alarm system installed in accordance with the Fire Prevention Code;
- (3) In other than Groups A and H, the maximum length of an existing dead-end corridor shall be 70 feet in buildings equipped throughout with an automatic sprinkler system installed in accordance with the Fire Prevention Code; and
- (4) In other than Groups A and H, the maximum length of a newly constructed or extended dead-end corridor may not exceed 50 feet in buildings equipped throughout with an automatic sprinkler system installed in accordance with the Fire Prevention Code.

The Building Code allows dead-end corridors in excess of the MBRC's 35-foot limit, based on the presence of an automatic sprinkler system and the occupancy of the space. If any of the exceptions are used, the fire protection system must meet the installation requirements contained in the Fire Prevention Code.

The second and third exceptions apply to existing dead-end corridor conditions only. If the arrangement of the reconstructed space either creates a new dead-end corridor or extends the length of an existing dead-end, the new arrangement must either meet the Fire Prevention Code requirements, be limited to 35 feet, or be limited to 50 feet only if the building is protected throughout with an automatic sprinkler system. Conditions may exist where automatic sprinkler protection on the floor of the work area alone may be adequate based upon other fire protection features in the building.

Because previous editions of the Fire Prevention Code have modified the requirements for dead-end corridors and remoteness of exits over the years, some arrangements may exist where the provisions of this section cannot be met. In such cases, the authority having jurisdiction may evaluate the "hardship" associated with compliance and may permit a compliance alternative in accordance with Chapter 01 (Administration) Regulation .05A(3).

Where the code permits a single exit condition, dead-end corridors also are permitted. This condition is typically addressed by an exception contained in the Fire Prevention Code.

.08 MEANS OF EGRESS — LIGHTING.

A. Means of egress in all rehabilitation work areas shall be provided with artificial lighting in accordance with the requirements of the Fire Prevention Code.

B. Supplemental Requirement. Except for means of egress within a tenant space that is entirely outside the rehabilitation work area:

(1) When the reconstruction rehabilitation work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall be provided with artificial lighting in accordance with the requirements of the Fire Prevention Code; and

(2) In a building with rehabilitation work areas involving over 50 percent of the aggregate floor area within the building, the means of egress within the rehabilitation work area and the means of egress, including the exit and exit discharge paths, serving the rehabilitation work area shall be provided with artificial lighting in accordance with the requirements of the Fire Prevention Code.

.09 EXIT SIGNS.

A. Means of egress in all rehabilitation work areas shall be provided with exit signs in accordance with the requirements of the Fire Prevention Code.

B. Supplemental Requirement. Except for means of egress within a tenant space that is entirely outside the rehabilitation work area:

(1) When the reconstruction rehabilitation work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall be provided with exit signs in accordance with the requirements of the Fire Prevention Code; and

(2) In a building with rehabilitation work areas involving over 50 percent of the aggregate floor area within the building, means of egress from the floor of the highest rehabilitation work area to the floor of exit discharge shall be provided with exit signs in accordance with the requirements of Fire Prevention Code.

.10 MEANS OF EGRESS — HANDRAILS AND GUARDS.

A. Handrails. The following requirements apply from the highest rehabilitation work area floor to the level of exit discharge:

(1) Every required exit stairway that is part of the means of egress for any rehabilitation work area that has three or more risers and is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails for the full length of the run of steps on at least one side;

“In danger of collapsing” may be determined by judgment, or by computation of the loads required by the Building Code or the code under which the handrails were constructed, allowing a 50% overstress.

- (2) All exit stairways with a required egress width of more than 66 inches shall have handrails on both sides; and
- (3) When there are no handrails or when the existing handrails must be replaced in accordance with §A(1) or (2) of this regulation, the handrails shall be designed and installed in accordance with the provisions of the Building Code.

Note that the requirement for handrails on both sides of the stairs applies only where the required egress width, as determined by Regulation .05 of this chapter, exceeds 66 inches. Any existing stairway with handrails on both sides is acceptable regardless of the width of the stairway. Consideration should be given to providing additional handrails to adequately serve the required egress width as required by the Fire Prevention Code, but this is not required. Also note that any newly constructed stairs need to comply with the Building Code requirements.

B. Guards. The following requirements apply from the highest rehabilitation work area floor to the level of exit discharge, but shall be confined to the egress path of any rehabilitation work area:

- (1) Every open portion of a stair, landing, or balcony that is more than 30 inches above the floor or grade below and not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards; and

“In danger of collapsing” may be determined by judgment, or by computation of the loads required by the Building Code or the code under which the handrails were constructed, allowing a 50% overstress.

- (2) When there are no guards or when the existing guards must be replaced in accordance with §B(1) of this regulation, the guards shall be designed and installed in accordance with the Building Code.

The text permits existing guards to remain if they are not in danger of collapsing, irrespective of the spacing between the intermediate rails. However, if a new guard is installed, the requirements of the Building Code, including the four-inch spacing limitations for intermediate rails, apply.

. I I INTERIOR FINISH.

A. The interior finish of walls and ceilings in any rehabilitation work area shall comply with the requirements of the Fire Prevention Code. All existing interior finish materials that do not comply with the requirements of the Fire Prevention Code shall be removed or shall be treated with an approved fire-retardant coating in accordance with the manufacturer's instructions to secure compliance with the requirements of the Fire Prevention Code.

The Fire Prevention Code requirements for interior finish materials may involve testing procedures other than the traditional tunnel test for flame spread ratings. For example, some materials are now required to be subjected to a room corner test.

B. Supplemental Requirement. Except for interior finish within a tenant space that is entirely outside the rehabilitation work area, when the rehabilitation work area on any floor exceeds 50 percent of that floor area, the requirements of §A of this regulation apply to the interior finish in exits and corridors serving the rehabilitation work area on the entire floor.

C. In a building with rehabilitation work areas involving over 50 percent of the aggregate floor area within the building, the requirements for interior finishes in exits apply from the floor of the highest rehabilitation work area to the floor of exit discharge.

. 12 SHAFT ENCLOSURES.

A. Newly Constructed Vertical Openings. In any rehabilitation work area, newly constructed vertical openings connecting two or more floors shall comply with the requirements of the Fire Prevention Code.

B. Existing Vertical Openings. In any rehabilitation work area, all existing interior vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire-resistance rating of not less than 1 hour with approved opening protectives.

Regulation .12 requires that the shaft be enclosed only in the “rehabilitation work area.”

C. Exception. The following are exceptions to the requirement of §B of this regulation:

- (1) When vertical opening enclosure is not required by the Fire Prevention Code;
- (2) Interior vertical openings other than stairways may be blocked at the floor and ceiling of the rehabilitation work area by installation of not less than 2 inches (50.8 millimeters) of solid wood or equivalent construction;
- (3) In Groups A, B, M, and R-2, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories;
- (4) In Group A, the enclosure required in §C(3) of this regulation is not required:
 - (a) When connecting the main floor and mezzanines; or
 - (b) When all the following conditions are met:
 - (i) The communicating area has a low hazard occupancy, or has a moderate hazard occupancy that is protected throughout by an automatic sprinkler system;

- (ii) The lowest or next to the lowest level is a street floor;
 - (iii) The entire area is open and unobstructed in a manner such that it may be assumed that a fire in any part of the interconnected spaces will be readily obvious to all the occupants;
 - (iv) Exit capacity is sufficient to provide egress simultaneously for all the occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity; and
 - (v) Each floor level, considered separately, has at least one-half of its individual required exit capacity provided by an exit or exits leading directly out of that level without having to traverse another communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level;
- (5) In Group B, the enclosure is not required in a building not exceeding 3,000 square feet per floor or when the building is protected throughout by an approved automatic sprinkler system;
- (6) In Group E, the enclosure is not required for vertical openings not exceeding three stories when the building is protected throughout by an approved automatic sprinkler system;
- (7) In Group F, the enclosure is not required for vertical openings not exceeding three stories:
- (a) In special-purpose occupancies when necessary for manufacturing operations and direct access is provided to at least one protected stairway; or
 - (b) In buildings that are protected throughout by an approved automatic sprinkler system;
- (8) In Group H, the enclosure is not required for vertical openings not exceeding three stories when necessary for manufacturing operations and every floor level has direct access to at least two remote enclosed stairways or other approved exits;
- (9) In Group M, the enclosure is not required when:
- (a) Openings connect only two floor levels, such as between the street floor and mezzanine or second floor; or
 - (b) Occupancies are protected throughout by an approved automatic sprinkler system;
- (10) In Group R-1, the enclosure is not required for vertical openings not exceeding three stories:
- (a) In buildings that are protected throughout by an approved automatic sprinkler system; or
 - (b) In buildings with less than 25 guests, in which the following conditions are met:
 - (i) Every sleeping room is provided with an approved window having a sill height not greater than 44 inches;
 - (ii) Every sleeping room above the second floor is provided with direct access from the room to a fire escape or other approved second exit;

- (iii) Any exit access corridor exceeding 8 feet in length that serves two means of egress, at least one of which is an unprotected vertical opening, shall be separated from the vertical opening by a 1-hour fire barrier; and
 - (iv) The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the Fire Prevention Code;
- (11) In Group R-2, the enclosure is not required:
- (a) In buildings that are protected throughout by an approved automatic sprinkler system;
 - (b) When the vertical opening connects not more than two floor levels with not more than four dwelling units per floor and each dwelling unit has access to a fire escape or other approved second exit; or
 - (c) When the vertical opening connects not more than three floor levels in buildings with not more than four dwelling units per floor, and in which the following conditions are met:
 - (i) Every sleeping room is provided with an approved window having a sill height not greater than 44 inches;
 - (ii) Every dwelling unit or sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit; and
 - (iii) The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the Fire Prevention Code.

Exceptions (10) and (11) of this Section refer to windows as being “approved.” The specific size of the window opening is not limited, because this Section is intended to apply to existing conditions. The window size criteria contained in Regulation .02C(7) of this chapter may be appropriate for determining what constitutes an acceptable window for approval.

This Section also refers to an “approved” second exit. When evaluating the acceptability of the proposed second exit, an adequate means for the occupants to access the grade level should exist. Depending on the height above grade and other conditions, it may be acceptable to permit the occupants to hang over a balcony and fall to grade. The authority having jurisdiction has the authority to evaluate the proposed arrangement and determine whether a reasonably safe means of egress will be provided.

. 1 3 SHAFT ENCLOSURE — SUPPLEMENTAL REQUIREMENTS.

A. When the reconstruction rehabilitation work area on any floor exceeds 50 percent of that floor area, Regulation .12B of this chapter applies throughout the floor.

B. Except when stairway enclosure is not required by the Fire Prevention Code, when the reconstruction rehabilitation work area on any floor exceeds 50 percent of that floor area, stairways that are part of the means of egress serving the rehabilitation work area shall be enclosed with smoke tight enclosures on all floors below the highest rehabilitation work area floor.

When Exception B applies, the stair shafts outside the rehabilitation work area are required to be smoke-tight only up to and including the highest level of rehabilitation work. No work is required above the highest level of work for shafts outside the rehabilitation work area. Shafts within the rehabilitation work area must comply with Regulation .12.

C. In a building with reconstruction rehabilitation work areas involving over 50 percent of the aggregate floor area within the building, stairways that are part of the means of egress shall be enclosed in accordance with Regulation .12B of this chapter on the highest rehabilitation work area floor and on all floors below it.

For Exception C, see commentary above for Section B. The reference to Regulation .12B includes the exceptions to this regulation contained in Regulation .12C.

. 1 4 FIRE SEPARATION AND SMOKE BARRIERS.

A. Group I-2 Buildings.

(1) When the rehabilitation work area is on a story used for sleeping purposes for more than 30 patients, the story shall be divided into not less than two compartments by smoke barrier walls complying with the technical requirements of §A(2) of this regulation. Each compartment may not exceed 22,500 square feet, and the travel distance from any point to reach a door in the required smoke barrier may not exceed 200 feet, except the travel distance to reach the smoke barrier door may not be limited when neither the length nor width of the smoke compartment exceeds 150 feet.

(2) Smoke Barrier Construction.

(a) The smoke barriers specified in §A(1) of this regulation shall be constructed in accordance with the provisions in this subsection.

(b) Smoke barriers shall have a fire-resistance rating of not less than 1/2 hour and shall form an effective membrane continuous from outside wall to outside wall and from floor slab to floor or roof deck above, including continuity through all concealed spaces, such as those found above suspended ceilings, and including interstitial structural and mechanical spaces. Transfer grilles, whether equipped with fusible link-operated dampers or not, may not be used in these partitions.

(c) Smoke barriers are not required in interstitial spaces when these spaces are designed and constructed with ceilings that provide resistance to the passage of fire and smoke equivalent to that provided by smoke barriers.

(d) Doors.

(i) Doors in smoke barriers shall have a fire protection rating of not less than 20 minutes when tested in accordance with NFPA 252 without the hose stream and labeled by an approved agency, or shall be 1-3/4 inch solid bonded wood core doors. Newly installed double egress corridor doors shall have approved vision panels. The doors shall close the openings with only the clearance necessary for proper operation under self-closing or automatic closing and shall be without undercuts, louvers, or grilles. Rabbets or astragals are required at the meeting edges of newly installed double egress doors, and stops are required on the head and jambs of all doors in smoke barriers. Positive latching devices are not required on double egress corridor doors, and center mullions are prohibited.

(ii) Protection at the meeting edges of doors and stops at the head and sides of door frames are not required in buildings equipped with an approved engineered smoke control system. The engineered smoke control system shall respond automatically to prevent the transfer of smoke across the barrier.

(iii) Doors in smoke barriers shall be self-closing or shall be provided with approved door hold-open devices of the fail-safe type that shall release the doors, causing them to close upon the actuation of smoke detectors as well as upon the application of a maximum manual pull of 50 pounds against the hold-open device.

(e) Dampers.

(i) An approved damper designed to resist the passage of smoke shall be provided at each point a duct penetrates a smoke barrier. The damper shall close upon detection of smoke by an approved smoke detector located within the duct.

(ii) Instead of an approved smoke detector located within the duct, ducts that penetrate smoke barriers above doors are permitted to have the approved damper arranged to close upon detection of smoke on either side of the smoke barrier door opening.

(iii) Dampers are not required when not required by the Fire Prevention Code, or in buildings equipped with an approved engineered smoke control system, or if the openings in ducts are limited to a single smoke compartment and the ducts are of steel construction, or in fully ducted systems where both sides of the smoke barrier are protected with an approved automatic sprinkler system.

B. Groups R-3 and R-4 Buildings.

(1) Requirements. When the rehabilitation work area is in any attached dwelling unit in Group R-3 or Group R-4, walls separating the dwelling units which are not continuous from the foundation to the underside of the roof sheathing shall be constructed to provide a continuous fire separation using construction materials consistent with the existing wall or complying with the requirements for new structures. All work shall be performed on the side of the wall of the dwelling unit that is part of the rehabilitation work area.

(2) Exception. An exception to the requirement of §B(1) of this regulation is that walls are not required to be continuous through concealed floor spaces.

In many cases, work in buildings in Groups R-3 and R-4 will be classified as “reconstruction” under Chapter 04 (Modifications), Regulation .01B as extensive modification because the work area exceeds 50 percent of the building area. The intent of Regulation .14B above is to provide an effective separation between attached dwelling units to minimize the likelihood that a fire within one dwelling unit will impact other units. Historically, dwelling unit separations were not continuous to the roof, which allowed fire to spread from one dwelling unit to another in the attic space. While such fire separations are usually required to be continuous through floor assemblies, the exception allows the wall to terminate at the ceiling, primarily because a fire resistance rating is not required. If the wall is not continuous, the ceiling construction is intended to provide the barrier. Also, because a fire resistance rating is not required, work need only occur in dwelling units within the work area and not in other adjacent dwelling units.

. 1 5 FIRE SUPPRESSION SYSTEMS.

A. General Requirements.

(1) Requirement. All rehabilitation work areas in any building or portion of a building that is required to be suppressed in accordance with the provisions of the Fire Prevention Code for existing buildings shall be provided with automatic sprinkler systems.

The intent of this section is to require sprinklers only in the rehabilitation work area, even if the boundary of the work area is not defined by partitions. The supplemental requirements in this regulation will require sprinklers outside the rehabilitation work area in certain instances.

(2) Exception. An exception to the requirement of §A(1) of this regulation is that in other than high-rise structures, when an adequate water supply for sprinkler protection is not available, alternative protection measures that are acceptable to the authority having jurisdiction shall be permitted. For purposes of this exception, adequate water supply means that the water supply available at the site has sufficient flow capability at a residual pressure of 20 pounds/square inch to meet the sprinkler system demand criteria.

When sizing the supply piping (feed mains, cross mains and risers) for an automatic sprinkler system, consideration should be given to sizing the pipe to be adequate for automatic sprinkler protection throughout the building. For example, a two-inch riser may be adequate for sprinkler protection on the ground floor, but would not be adequate if sprinkler protection were installed on the upper floors at a later date.

This section will require automatic fire suppression in all work areas in buildings where the existing building provisions of the Fire Prevention Code (NFPA 101) require automatic fire suppression. If an adequate water supply is not available at the property, either the water supply must be provided or a compliance alternative must be approved by the authority having jurisdiction as permitted in Chapter 01 (Administration), Regulation .05A (2) or (3).

“Adequate water supply” is the required flow at a minimum of 20 psi. The water must be available in the municipal system in the street. If the flow cannot be met, the project may use Exception A(2).

B. Floor Area Supplemental Requirements.

(1) Requirement. When the rehabilitation work area on any floor exceeds 50 percent of that floor area, §A of this regulation applies to the entire floor.

(2) Exception. An exception to the requirement of §B(1) of this regulation is that, in other than high-rise structures, when an adequate water supply for sprinkler protection is not available, the authority having jurisdiction may accept alternative protection. For purposes of this exception, adequate water supply means that the water supply available at the site has sufficient flow capability at a residual pressure of 20 pounds/square inch to meet the sprinkler system demand criteria.

C. Building Area Supplemental Requirements.

(1) Requirement. In a building with rehabilitation work areas involving over 50 percent of the aggregate building area, automatic sprinkler systems shall be provided in accordance with the provisions of the Fire Prevention Code for new construction. This requirement applies to the highest floor containing a rehabilitation work area and all floors below.

Note that Sections A and B of this regulation use the trigger of NFPA 101 for *EXISTING* buildings, while Section C uses the trigger of NFPA 101 for *NEW* construction.

(2) Exceptions. The following are exceptions to the requirement of §C(1) of this regulation:

- (a) In other than high-rise structures, when an adequate water supply for sprinkler protection is not available, the authority having jurisdiction may accept alternative protection; for purposes of this exception, adequate water supply means that the water supply available at the site has sufficient flow capability at a residual pressure of 20 pounds/square inch to meet the sprinkler system demand criteria; and
- (b) Group R buildings less than four stories in height and with no more than four units per floor.

Exception (b) applies only to the “Building Area Supplemental Requirement” reference to the Fire Prevention Code for new construction. For R-2 buildings with fewer than 4 stories and with 4 or fewer units per floor, the existing building requirements of the Fire Prevention Code apply. If a 3 story apartment building with 4 units per floor is under going a reconstruction rehabilitation project, sprinklers would be required throughout the building only if the sprinkler option from the Fire Prevention Code existing buildings provision was chosen.

D. Mixed Use Buildings. In buildings containing mixed uses, one or more of which requires automatic sprinkler protection in accordance with §SA — C of this regulation, automatic sprinklers are not required throughout the building, if the occupancies requiring automatic sprinklers are separated from those not requiring automatic sprinklers by fire-resistive construction having a minimum 2-hour rating for Group H, and a minimum 1-hour rating for all other occupancies.

This allows an occupancy separation to avoid the requirement for automatic fire suppression throughout the building where Section C would otherwise require it. This provision applies only to “mixed use buildings.” Portions of buildings required to be sprinklered in accordance with Sections A, B, and C are required to be sprinklered only in the areas specified, and the sprinklered area does not have to terminate a rated assembly.

E. Supervision Methods. Automatic sprinkler systems required by this section shall be supervised by one of the following methods:

- (1) Approved central station system in accordance with NFPA 72;
- (2) Approved proprietary system in accordance with NFPA 72;
- (3) Approved remote station system of the jurisdiction in accordance with NFPA 72; or
- (4) Except in the following situations, approved local alarm service which will cause the sounding of an alarm in accordance with NFPA 72:

- (a) Underground gate valve with roadway boxes;
- (b) Halogenated extinguishing systems;
- (c) Carbon dioxide extinguishing systems;
- (d) Dry and wet chemical extinguishing systems;
- (e) Limited area sprinkler systems; and
- (f) Occupancies in Group R complying with NFPA 13R or NFPA 13D, as appropriate.

F. Standpipes.

(1) Requirements. Any rehabilitation work areas in a building that is required to be provided with a standpipe system by the Building Code shall be provided with standpipes up to and including the highest rehabilitation work area floor. The standpipes shall be located and installed in accordance with the Building Code.

(2) Exceptions.

- (a) Exceptions to the provisions of §F(1) of this regulation are provided in this subsection.
- (b) A pump is not required if the standpipes are capable of accepting delivery by fire department apparatus of a minimum of 250 gallon/minute at 65 pounds/square inch to the topmost floor in buildings equipped throughout with an automatic sprinkler system or a minimum of 500 gallons/minute at 65 pounds/square inch to the topmost floor in all other buildings. When the standpipe terminates below the topmost floor, the standpipe shall be designed to meet these requirements (gpm/psi) for possible future extension of the standpipe.

Installation of a fire pump to meet the automatic water supply requirements for a standpipe system can be a costly improvement. If the fire department is capable of providing the required water supply through the fire department connection, the cost of the fire pump during a reconstruction project may not be warranted.

The standpipes mandated by the Building Code are not required to have a hose for occupant use. In fact, occupant use of standpipes is discouraged. Because only the fire department will use the standpipes, this section does not require an automatic water supply if the fire department can supply an adequate flow and pressure using its equipment.

- (c) In other than high-rise buildings, the required interconnection of the standpipes for a wet system are permitted at the lowest level of the rehabilitation work area.

This exception modifies the Building Code requirement for interconnection of standpipe risers at the lowest level of the building. If the building undergoing rehabilitation has non-interconnected standpipes, the standpipes must be interconnected on the lowest floor undergoing reconstruction.

Once a system is interconnected, it will not be required to be interconnected at a lower floor undergoing a subsequent rehabilitation project.

G. Elevator Requirements. When sprinklers are installed in an elevator hoistway or elevator machine room as part of the rehabilitation work, the elevators shall be in compliance with rule 211.3 of ASME A17.1-1996, and all subsequent amendments and revisions to it adopted by the Commissioner of Labor and Industry.

Section G requires shunt trip disconnection for elevator equipment protected by sprinklers.

. 1 6 FIRE ALARMS.

A. Smoke Alarms.

- (1) In Groups R-1 and R-2, individual guestrooms and individual dwelling units in a rehabilitation work area shall be provided with smoke alarms complying with the Fire Prevention Code.
- (2) When the reconstruction rehabilitation work area is in Group R-3 or R-4, smoke alarms in compliance with the Fire Prevention Code shall be provided throughout the dwelling unit at each level and outside each sleeping area.

Smoke detector requirements in the MBRC are taken from the Fire Prevention Code, which in general requires the following:

R-1 Buildings

Hard wired detectors are required in each dwelling unit

R-2 Buildings

Detectors are required outside each sleeping area

Hard wired detectors are required in each dwelling unit

Hard wired detectors with battery backup are required on each level built after July 1, 1990

The detectors must be interconnected if built after January 1, 1989

R-3 and R-4 Buildings

Detectors are required outside each sleeping area

Hard wired detectors are required in each dwelling unit built between 1975 and 1990

Hard wired detectors with battery backup are required on each level built after 1990

The detectors must be interconnected if built after January 1, 1989

(3) Exceptions. The following are exceptions to the requirement of §A(2) of this regulation:

- (a) Interconnection of smoke detectors are not required outside of the rehabilitation work area; and
- (b) Battery-powered single station smoke detectors listed in accordance with UL 217 are permitted outside the rehabilitation work area.

Battery-powered smoke detectors are generally not considered as reliable as smoke detectors powered from the building electrical system. Therefore, within the work area, battery-powered smoke detectors do not fulfill the smoke detector requirements. If portions of a dwelling unit outside the work area do not have proper smoke detectors, detectors must be provided in the specified locations. However, these smoke detectors may be battery-powered and need not be interconnected.

B. Manual Fire Alarm Systems.

- (1) When the rehabilitation work area on any floor exceeds 50 percent of that floor area and the rehabilitation work area is in a building required to have a manual fire alarm system in accordance with the Fire Prevention Code, a manual fire alarm system shall be provided on the floor. Alarm-indicating appliances shall be provided on the floor and shall be automatically activated as required by the Fire Prevention Code by all new and existing initiating devices.
- (2) When the rehabilitation work area involves over 50 percent of the aggregate building area and the rehabilitation work area is in a building required to have a manual fire alarm system in accordance with the Fire Prevention Code, a manual fire alarm system shall be provided throughout the building in accordance with the Fire Prevention Code.

Manual fire alarms consist of manual pull stations, audio notification devices, and visual notification devices. If the fire alarm system is existing, the MBRC does not require that it be upgraded to include visual devices. It also does not require that existing notification devices meet current audibility requirements.

C. Automatic Fire Detection Systems.

(1) General Requirements.

(a) Requirement. When the rehabilitation work area is in a building that is required to have an automatic fire detection system in accordance with the Fire Prevention Code, an automatic fire detection system shall be installed in the rehabilitation work area. Existing alarm-indicating appliances shall be automatically activated throughout the building. When the building is not equipped with a fire alarm system, alarm-indicating appliances within the rehabilitation work area shall be provided and automatically activated.

(b) Exception. An exception to the requirement of §C(1)(a) of this regulation is that when selective notification is permitted, alarm-indicating appliances shall be automatically activated in the areas selected.

Where selective notification is provided, consideration should be given to providing a means of advising occupants outside the selected area of the status of the fire alarm signal.

(2) Floor Area Supplemental Requirements.

(a) Requirement. When the rehabilitation work area on any floor exceeds 50 percent of that floor area and the rehabilitation work area is in a building that is required to have an automatic fire detection system in accordance with the Fire Prevention Code, an automatic fire detection system shall be installed throughout the floor. Alarm-indicating appliances shall be automatically activated throughout the building.

(b) Exceptions. The following are exceptions to the requirement of §C(2)(a) of this regulation:

(i) When selective notification is permitted, alarm-indicating appliances shall be automatically activated in the areas selected; and

(ii) When the building is not equipped with a fire alarm system, alarm indicating appliances on the floor shall be provided and automatically activated.

(3) Building Area Supplemental Requirements. When the rehabilitation work area involves over 50 percent of the aggregate building area and the building is required to have an automatic fire detection system in accordance with the Fire Prevention Code, an automatic fire detection system shall be provided throughout the building in accordance with the Fire Prevention Code.

. 17 HIGH-RISE BUILDINGS.

A. A building or structure having one or more floors more than 75 feet above the lowest level accessible to a fire department vehicle shall be in compliance with the requirements of this section.

B. Recirculating Air or Exhaust Systems. When the rehabilitation work area is on a floor that is served by a recirculating air or exhaust system serving more than one floor, the recirculating air or exhaust system that serves the rehabilitation work area shall be equipped with approved smoke-detection and heat-detection devices installed in accordance with §606 of the Mechanical Code. The devices shall stop the fan or fans automatically and shall be of the manual reset type. Automatic fan shutdown is not required when the system is part of an approved smoke removal or smoke control system.

C. Elevators Requirements. When the rehabilitation work area is one entire floor or when the rehabilitation work area is 20 percent or more of the occupied floor area of the building, the elevators in the building shall be equipped with the following emergency control devices:

- (1) All automatic (nondesignated attendant) elevators having a travel distance of 25 feet or more above or below the designated level shall be equipped with Phase I Emergency Recall Operation as required by ASME A17.1-1987, Rules 211.3a and 211.3b;
- (2) All floors shall be accessible by at least one elevator equipped with Phase II Emergency In-Car Operation, as required by ASME A17.1-1987, Rule 2.113c; and
- (3) All designated attendant elevators having a travel distance of 25 feet or more above or below the designated level shall be equipped with emergency controls, as required by ASME A17.1-1987, Rule 211.4.

This section references the 1987 edition of ASME A17.1, even though there is a later edition of this document. ASME A17.3-95, Safety Code for Existing Elevators and Escalators, which is the source for these requirements, specifies conformance to the 1987 edition as follows:

“3.11.3 Firefighters’ Service: Elevators shall conform to the requirements of ASME/ANSI A17.1-1987 Rules 211.3 through 211.8 unless at the time of installation or alteration it was required to comply with a later edition of A17.1.”

D. Smoke Barriers.

(1) Requirement. When the rehabilitation work area on any floor exceeds 50 percent of that floor area and is on a floor above the main floor level in Groups R-1 and R-2, smoke barriers conforming to the requirements of Regulation .14A(2) of this chapter shall be provided around all elevator landings on the rehabilitation work area floor.

(2) Exceptions. The following are exceptions to the requirement of §D(1) of this regulation:

(a) The smoke barriers are permitted to terminate at the ceiling, if the ceiling membrane provides resistance to the passage of smoke equivalent to that provided by the smoke barriers;

(b) The smoke barriers are not required in buildings protected throughout by an automatic sprinkler system; and

(c) The smoke barriers are not required in buildings provided with a smoke control system.

. 1 8 BOILER/FURNACE EQUIPMENT ROOMS.

A. General Requirements.

(1) Requirements. Boiler and furnace equipment rooms shall be enclosed by fire rated construction when the rehabilitation work area is in day nursery facilities, children's shelter facilities, residential child care facilities, and similar facilities with children younger than 2-1/2 years old, and facilities that may be classified as Group I-4, shelter facilities, residences for the developmentally disabled, group homes, teaching family homes, transitional living homes, rooming and boarding houses, hotels, and multiple dwellings.

(2) Exceptions. The following are exceptions to the requirement of §A(1) of this regulation:

(a) Furnace and boiler equipment of low pressure type (operating at pressures of 15 pounds/square inch gage or less for steam equipment or 160 pounds/square inch gage or less for hot water equipment) when installed in accordance with manufacturer recommendations or furnace and boiler equipment of residential (R-3) type (200,000 Btu per hour input rating or less) is not required to be enclosed;

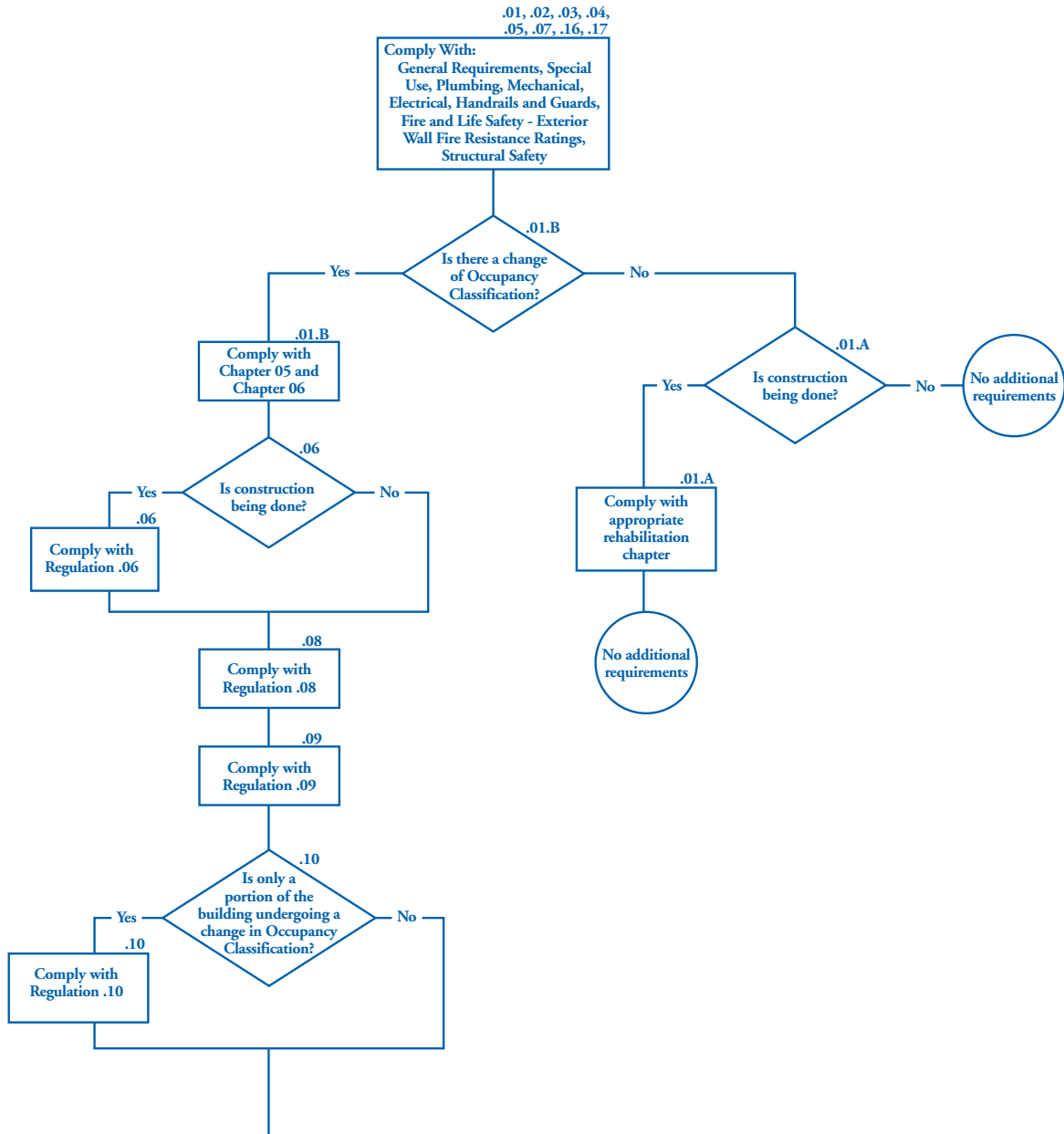
(b) Furnace rooms protected with automatic sprinkler protection; and

(c) Boiler/furnace equipment rooms protected in accordance with the Fire Prevention Code.

B. Emergency controls shall be provided in all structures classified as day nurseries, children's shelter facilities, residential child care facilities, and similar facilities with children younger than 2-1/2 years old, and structures that may be classified as Group I-4, and in group homes, teaching family homes, and supervised transitional living homes in accordance with the following:

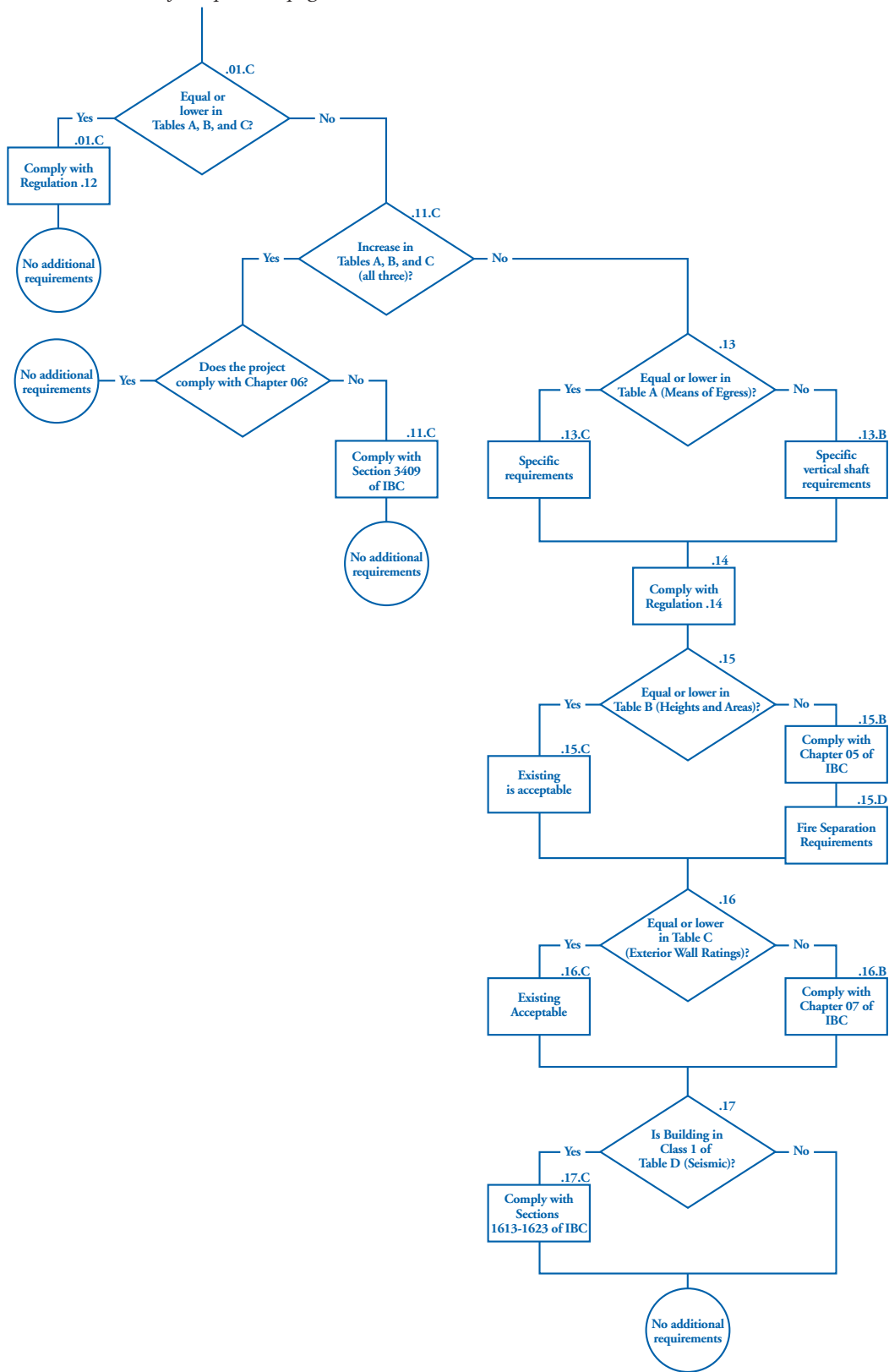
- (1) Emergency shutoff switches for furnaces, boilers, and pressure vessels in basements shall be at the top of the stairs leading to the basement; and
- (2) Emergency shutoff switches for furnaces, boilers, and pressure vessels in other enclosed rooms shall be located outside of the room.

EVALUATION FLOW CHART FOR CODE REQUIREMENTS IN CHAPTER 06 - CHANGE OF USE AND OCCUPANCY



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05.16.06 CHANGE OF USE AND OCCUPANCY

The provisions of this chapter apply to occupancies or portions of occupancies that undergo a “change of occupancy classification” or a “change of occupancy.” “Change of occupancy classification” and “change of occupancy” are not synonyms. A “change of occupancy classification” is the change of occupancy group, *e.g.*, changing from A-1 to M or from R-1 to R-2. Chapter 01 (Administration) defines a “change of occupancy” as a “change in the purpose or level of activity within a structure that involves a change in application of the requirements of the local building code.”

“Change of Occupancy Classification” and “Change of Use Group” are synonyms, as are “Change of Occupancy” and “Change of Use.”

This chapter applies to all “changes of occupancy classification” even when no rehabilitation work is anticipated. This chapter also applies any time that a change in the level of activity in a structure triggers a new building code requirement.

.01 GENERAL REQUIREMENTS.

A. Any repair, renovation, modification, or reconstruction work undertaken in connection with a change of character of use that does not involve a change of occupancy classification shall conform to the requirements of COMAR 05.16.02, 05.16.03, 05.16.04, and 05.16.05, respectively, for the applicable occupancy classification, and with Regulations .02 — .05 of this chapter, if applicable.

B. Except as provided in §§C and D of this regulation, the occupancy classification of an existing building or structure may be changed, if the building or structure meets all the requirements of COMAR 05.16.05 applied throughout the building for the new occupancy classification, and the requirements of this chapter.

Section B requires compliance with Chapter 05 (Reconstruction). Section C (below) provides an exception for compliance with Chapter 05 (Reconstruction).

C. Compliance with all the provisions of COMAR 05.16.05 is not required when the change of use complies with the requirements of Regulation .12 of this chapter or as modified in COMAR 05.16.08 for historic buildings.

Regulation .12 may be used only in instances where the “change in occupancy classification” is to an equal or lower hazard level in all tables (with the exception of Table D, Seismic).

D. Every change of occupancy to one classified in a different occupancy classification requires a new certificate of occupancy regardless of whether any renovations, modifications, or reconstruction work is required by this subtitle.

.02 SPECIAL USE AND OCCUPANCY REQUIREMENTS.

Regulation .02 applies to “Change of Occupancy” and “Change of Occupancy Classification.”

A. When the character of use of an existing building or part of an existing building is changed to one of the following special use or occupancy categories, as defined in Chapter 4 of the Building Code, the building shall comply with all the applicable requirements of that chapter, regardless of whether a change of occupancy classification is involved:

- (1) Covered mall buildings (§402 of the Building Code);
- (2) Atriums (§404 of the Building Code), except spaces complying with §8.2.5.5 of NFPA 101-2000;
- (3) Private garages (§406.1 of the Building Code);
- (4) Parking garages (§406.2 of the Building Code);
- (5) Motion picture projection rooms (§409 of the Building Code);
- (6) Stages and platforms (§410 of the Building Code);
- (7) Special amusement buildings (§411 of the Building Code); and
- (8) H-5 facilities (§415.9 of the Building Code).

The preceding list of special use occupancies are deemed to pose unusual hazards. These hazards are typically best managed by complying with the building code provisions as outlined in the text.

B. An underground building, as defined in §405 of the Building Code, in which there is a change of occupancy shall comply with the requirements of §405 of the Building Code applicable to underground buildings.

.03 PLUMBING REQUIREMENTS.

Regulation .03 applies to “Change of Occupancy” and “Change of Occupancy Classification.”

A. When the occupancy of an existing building or part of an existing building is changed so that the new occupancy is subject to increased or different plumbing fixture requirements in accordance with §7.21 of the Plumbing Code, or to increased water supply requirements in accordance with §10.14 of the Plumbing Code, compliance with the intent of the respective Plumbing Code provisions, as articulated in Principles Nos. 1, 2, 3, 4, 5, 7, 8, 9, 10, and 11 of the Basic Principles of the Plumbing Code, is required.

The above referenced principles are as follows:

Principle No. 1—ALL OCCUPIED PREMISES SHALL HAVE POTABLE WATER

All premises intended for human habitation, occupancy, or use shall be provided with supply of potable water. Such a water supply shall not be connected with unsafe water sources, nor shall it be subject to the hazards of backflow.

Principle No. 2—ADEQUATE WATER REQUIRED

Plumbing fixtures, devices, and appurtenances shall be supplied with water in sufficient volume and at pressures adequate to enable them to function properly and without undue noise under normal conditions of use.

Principle No. 3—HOT WATER REQUIRED

Hot water shall be supplied to all plumbing fixtures which normally need or require hot water for their proper use and function.

Principle No. 4—WATER CONSERVATION

Plumbing shall be designed and adjusted to use the minimum quantity of water consistent with proper performance and cleaning.

Principle No. 5—SAFETY DEVICES

Devices for heating and storing water shall be so designed and installed as to guard against dangers from explosion or overheating.

Principle No. 7—REQUIRED PLUMBING FIXTURES

Each family dwelling unit shall have at least one water closet, one lavatory, one kitchen-type sink, and one bathtub or shower to meet the basic requirements of sanitation and personal hygiene.

All other structures for human habitation shall be equipped with sufficient sanitary facilities. Plumbing fixtures shall be made of durable, smooth, non-absorbent and corrosion resistant material and shall be free from concealed fouling surfaces.

Principle No. 8—DRAINAGE SYSTEM

The drainage system shall be designed, constructed, and maintained to guard against fouling, deposit of solids and clogging, and with adequate cleanouts so arranged that the pipes may be readily cleaned.

Principle No. 9—DURABLE MATERIALS AND GOOD WORKMANSHIP

The piping of the plumbing system shall be of durable material, free from defective workmanship and so designed and constructed as to give satisfactory service for its reasonable expected life.

Principle No. 10—FIXTURE TRAPS

Each fixture directly connected to the drainage system shall be equipped with a liquid seal trap.

Principle No. 11—TRAP SEAL SHALL BE PROTECTED

The drainage system shall be designed to provide an adequate circulation of air in all pipes with no danger of siphonage, aspiration, or forcing of trap seals under conditions of ordinary use.

B. If the new occupancy is a food-handling establishment, all existing sanitary waste lines above the food or drink preparation, storage, display, or serving areas shall be panned or otherwise protected to prevent leaking pipes or condensation on pipes from contaminating food or drink. New drainage lines may not be installed above these areas, or shall be protected in accordance with §2.25 of the Plumbing Code.

C. If the new occupancy will produce grease or oil laden wastes, it shall be provided with interceptors as required in §§6.2 and 6.3, respectively, of the Plumbing Code.

D. If the new occupancy produces chemical wastes, the following apply:

- (1) If the existing piping is not compatible with the chemical waste, the waste shall be neutralized before entry into the drainage system or the piping shall be changed to a compatible material; and
- (2) Chemical waste may not discharge to a public sewer system without the approval of the sewage authority.

E. If the occupancy classification is changed to Group I-2, the plumbing system shall be in compliance with the requirements of Chapter 14 of the Plumbing Code.

.04 MECHANICAL REQUIREMENTS.

This regulation applies to “Change of Occupancy” and “Change of Occupancy Classification.”

When the occupancy of an existing building or part of an existing building is changed so that the new occupancy is subject to different kitchen exhaust requirements or to increased mechanical ventilation requirements in accordance with Chapter 5 and §403, respectively, of the Mechanical Code, compliance with the intent of the respective Mechanical Code provisions, as articulated in paragraph 101.3 of the Mechanical Code, is required.

Paragraph 101.3 of the Mechanical Code states the intent of the code:

“The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance or use of mechanical systems.”

The Mechanical Code includes outdoor air rate requirements (in terms of CFM/person or CFM/sq.ft.) for many occupancy classifications. The intent of this Regulation is to require an upgrade to mechanical ventilation if the change of occupancy entails an increased demand for ventilation. While not requiring strict adherence to the Mechanical Code’s outdoor air rate requirements in every situation, Regulation .04 strives to achieve their intent, as articulated above.

.05 ELECTRICAL REQUIREMENTS.

Regulation .05 applies to “Change of Occupancy” and “Change of Occupancy Classification.”

A. When the occupancy of an existing building or part of an existing building is changed to one of the following special occupancies as described in Chapter 5 of the Electrical Code, the electrical wiring and equipment of the building or portion of the building that contains the proposed occupancy shall comply with all applicable requirements of the Electrical Code regardless of whether a change of occupancy is involved:

- (1) Hazardous (classified) locations;
- (2) Commercial garages, repair, and storage;
- (3) Aircraft hangars;
- (4) Gasoline dispensing and service stations;
- (5) Bulk storage plants;
- (6) Spray application, dipping, and coating processes;
- (7) Health care facilities;
- (8) Places of assembly;

- (9) Theaters, audience areas of motion picture and television studios, and similar locations;
- (10) Motion picture and television studios and similar locations;
- (11) Motion picture projectors; and
- (12) Agricultural buildings.

Section (A) includes a complete listing of the occupancies that entail special electrical requirements in the National Electrical Code due to the nature of the occupancy.

B. When the occupancy of an existing building or part of an existing building is changed, all unsafe conditions, as determined by the authority having jurisdiction, shall be corrected, without requiring that all parts of the electrical system be brought into compliance with the Electrical Code.

C. When the occupancy classification of an existing building or part of an existing building is changed to Group R-2, R-3, or R-4, electrical service shall be upgraded to meet the requirements of Article 220 of the Electrical Code for the new occupancy, and electrical wiring and equipment throughout the building shall comply with the requirements of COMAR 05.16.04.05D and E.

This section may require increasing the service, but the reference to Chapter 04 (Modification) ensures that the MBRC will require only a limited increase in the number of outlets, and will not require full compliance with the NEC requirements for new buildings.

.06 ACCESSIBILITY.

Regulation .06 applies to a “Change of Occupancy Classification” and a “Change of Occupancy,” but only where the rehabilitation work, as specified, is being carried out.

A. When the occupancy of an existing building or part of an existing building is changed, and when renovation, modification, or reconstruction work is to be carried out, compliance with the requirements of COMAR 05.16.03.03 for the new occupancy is required.

B. When the occupancy of an existing building or part of an existing building is changed, and when no work is being performed, compliance with the Accessibility Code is not required.

.07 HANDRAILS AND GUARDS.

Regulation .07 applies to “Change of Occupancy” and “Change of Occupancy Classification”

A. Handrails. Existing stairways shall be in compliance with the handrail requirements in COMAR 05.16.05.10A.

B. Guardrails. Existing guardrails shall be in compliance with the guardrail requirements in COMAR 05.16.05.10B.

.08 LIGHT AND VENTILATION.

Regulation .08 applies to “Change of Occupancy” and “Change of Occupancy Classification.”

Lighting and ventilation shall be in compliance with the requirements of §§1204 and 1202, respectively, of the Building Code for the new occupancy classification.

The referenced Building Code section contains the lighting and ventilation requirements. The MBRC does not change the Building Code provisions.

.09 FIRE AND LIFE SAFETY — AUTOMATIC SPRINKLER SYSTEMS.

Any change of occupancy shall be in compliance with the automatic sprinkler system requirements of the Fire Prevention Code for new construction. COMAR 05.16.05.15 shall be used to determine the extent of sprinkler protection required using the area that has changed occupancy as the rehabilitation work area.

The Fire Prevention Code is used to determine when sprinklers are required. The provisions of Chapter 05 (Reconstruction), Regulation .15 are used to determine the area of protection. The supplemental requirements and exceptions in Regulation .15 also apply.

The following examples may help illustrate situations where this regulation would apply.

Example 1

An existing large single-family home (Group R-3, Type 3B construction) is being converted into a bed and breakfast (Group R-1). The house will be painted and two new bathrooms will be added.

The work is classified as a Renovation project accompanying a Change of Occupancy Classification for the building. MBRC Chapter 06 (Change of Use and Occupancy) requires automatic sprinkler protection per the new building requirements of the Fire Prevention Code, which in this case would require sprinklers in the building.

Example 2

A 20,000 sq. ft., 4-story building (Type 2B) is being converted from Mercantile on the ground floor and Business on the upper floors to Assembly (A-2, restaurant) on the ground floor and Business on all other floors. The entire ground floor will be reconfigured. The upper floors will remain unchanged.

The ground floor work is classified as an Extensive Modification accompanying a Change of Occupancy Classification for the building. The MBRC treats Extensive Modifications as

Reconstruction projects (see Chapter 01, Regulation .03B(35)). MBRC Chapter 06 (Change of Use and Occupancy) requires automatic sprinkler protection per the new building requirements of the Fire Prevention Code, which in this case would require sprinklers on the ground floor if the Assembly occupant load is greater than 300 persons. *(Note: If the ground floor were converted from Mercantile to Business, the Fire Prevention Code would not require sprinklers on the ground floor).*

Example 3

An existing unsprinklered warehouse (Group S-1) is being converted into a nightclub (Group A-2). New restrooms and bars will be built.

The work is Modification project accompanying a Change of Occupancy Classification for the building. MBRC Chapter 06 (Change of Use and Occupancy) requires automatic sprinkler protection per the new building requirements of the Fire Prevention Code, which would require sprinklers in the building.

.10 PART CHANGE OF OCCUPANCY CLASSIFICATION.

Regulation .10 applies to “Change of Occupancy Classification.”

A. Requirements for Non-Separated Uses.

(1) Requirement. When a portion of an existing building is changed to a new occupancy classification, and that portion is not separated from the remainder of the building with fire barrier walls or horizontal assemblies, or both, having a fire-resistance rating as required in Table 302.3.3 of the Building Code for the separate occupancy classifications, or with approved compliance alternatives, the entire building shall comply with all the requirements of COMAR 05.16.05 applied throughout the building for the new occupancy classification, and with the requirements of this chapter.

When the requirements of Chapter 05 (Reconstruction) are applied, they apply to all elements addressed in Chapter 05 (Reconstruction).

(2) Exception. An exception to the requirement of §A(1) of this regulation is that compliance with all the provisions of COMAR 05.16.05 is not required when the change of occupancy complies with the requirements of Regulation .12 of this chapter.

Regulation .12 may be used only in instances where the “change in occupancy classification” is to an equal or lower hazard level in all tables (with the exception of Table D, Seismic).

B. Requirements for Separated Uses.

(1) Requirement. When a portion of an existing building is changed to a new occupancy classification, and that portion is separated from the remainder of the building with fire barrier walls or horizontal assemblies, or both, having a fire-resistance rating as required in Table 302.3.3 of the Building Code for the separate occupancy classifications, or with approved compliance alternatives, the portion changed shall comply with all the requirements of COMAR 05.16.05 for the new occupancy classification, and with the requirements of this chapter.

(2) Exception. An exception to the requirement of §B(1) of this regulation is that compliance with all the provisions of COMAR 05.16.05 is not required when the change of occupancy complies with the requirements of Regulation .12 of this chapter.

Regulation .12 may only be used in instances where the “change in occupancy classification” is to an equal or lower hazard level in all tables with the exception of Table D, Seismic.

. 1 | HAZARD CATEGORY CLASSIFICATIONS.

Regulation .11 applies to “Change of Occupancy Classification.”

A. The relative degree of hazard between different occupancy classifications shall be as set forth in the hazard category classifications, Table A of Regulation .13, Table B of Regulation .15, Table C of Regulation .16, and Table D of Regulation .17 of this chapter.

B. Change to Same or Lesser Hazard.

(1) Requirement. An existing building or portion of an existing building may have its use changed to an occupancy classification within the same hazard classification category or to an occupancy classification in a lesser hazard classification category (higher number) in all three hazard category classifications designated in Tables A, B, and C and to any category in Table D except the highest classification, if it is in compliance with Regulations .07, .08, and .17A and B of this chapter and with the provisions of COMAR 05.16.05 for the new occupancy classification applied throughout the building or portion of the building in accordance with Regulation .10B of this chapter.

(2) Exception. An exception to the requirement of §B(1) of this regulation is that compliance with all the provisions of COMAR 05.16.05 is not required when the change of occupancy is in compliance with the requirements of Regulation .12 of this chapter.

The exception references Regulation .12, which addresses the applicable requirements for a change of use to an equal or lesser hazard category based on Tables A, B and C. Where this occurs, compliance with all provisions of Chapter 05 (Reconstruction) for the new use is not required, provided compliance with the selected requirements identified in Regulation .12 is achieved.

C. Change to a Higher Hazard.

- (1) An existing building shall be in compliance with all the applicable requirements of this chapter when a change in occupancy will place it in a higher hazard category or when the use is changed within Group H.
- (2) An existing building may have its occupancy classification changed to a higher hazard rating (lower number) in all three hazard category classifications designated in Tables A, B, and C, if it is in compliance with this chapter or with §3409 of the Building Code.

Section 3409 of the IBC, entitled “Compliance Alternatives,” provides a numerical system for accounting for deficiencies in buildings. The MBRC limits the use of Section 3409 to only change of occupancy situations.

. 12 CHANGE OF OCCUPANCY TO AN EQUAL OR LESSER HAZARD.

Regulation .12 applies to “Change of Occupancy Classification.”

A. A change of use to an occupancy classification within the same hazard classification category or to an occupancy classification in a lesser hazard classification category (higher number) in the three hazard category classifications addressed by Tables A, B and C is permitted in an existing building or portion of an existing building, if the provisions of this regulation are met.

There are instances where the new occupancy classification may be considered a lesser hazard in all three of the fire hazard classification tables. One option provided by Regulation .11 is to comply with the requirements of Chapter 05 (Reconstruction) for the new occupancy classification. However, if the new hazard is not as severe as the hazard associated with the prior use, compliance with all of the provisions of Chapter 05 (Reconstruction) may be an unreasonable burden. Therefore, this regulation permits a change to a lesser hazard as measured in Tables A, B and C, provided compliance with selected additional requirements are met to achieve an acceptable level of protection for the new use.

Some examples of when this condition may occur include the following:

1. Change from an assembly use to Group E.
2. Change from an office building to Group F-2.
3. Change from a school to Group B.
4. Change from an industrial use to Group B.
5. Change from an institutional use to Group R.

B. Regardless of the occupancy classification involved, the following requirements shall be met throughout the building:

- (1) The capacity of the means of egress shall comply with COMAR 05.16.05.05;
- (2) The interior finish of walls and ceilings shall comply with the requirements of COMAR 05.16.05.11;
- (3) The high-rise building requirements of COMAR 05.16.05.17 apply; and
- (4) The boiler/furnace room requirements of COMAR 05.16.05.18 apply.

Tables A, B, and C do not address the hazards associated with interior finish materials, high rise buildings, or boiler/furnace rooms. Therefore, regardless of the hazard classification, compliance with the referenced regulations is required. Likewise, regardless of the new occupancy classification, the means of egress capacity must comply with the provisions of Chapter 05 (Reconstruction), Regulation 05.

C. When the new use is classified as Group I-1, R-1, R-2, or R-4, the following requirements shall be met throughout the building:

- (1) Corridor doors and transoms shall be in compliance with the requirements of COMAR 05.16.05.06C and D; and
- (2) Fire alarm systems shall be in compliance with the requirements of COMAR 05.16.05.16.

D. When the new use is classified as Group I-2, the following requirements shall be met throughout the building:

- (1) Egress doorways from patient sleeping rooms and suites of rooms shall be in compliance with the requirements of COMAR 05.16.05.06B;
- (2) Shaft enclosures shall be in compliance with the requirements of COMAR 05.16.05.12;
- (3) Smoke barriers shall be in compliance with the requirements of COMAR 05.16.05.14A; and
- (4) Fire alarm systems shall be in compliance with the requirements of COMAR 05.16.05.16.

E. When the new use is classified as Group I-3, the following requirements shall be met throughout the building:

- (1) Locking of egress doors shall be in compliance with the requirements of COMAR 05.16.05.06K;
- (2) Shaft enclosures shall be in compliance with the requirements of COMAR 05.16.05.12; and

(3) Fire alarm systems shall be in compliance with the requirements of COMAR.05.16.05.16.

F. When the new use is classified as Group R-3, the following requirements shall be met:

(1) Dwelling unit separation shall be in compliance with the requirements of COMAR 05.16.05.14B; and

(2) The smoke alarm requirements of COMAR 05.16.05.16A shall be met.

G. When a change of occupancy includes a commercial kitchen, existing grease ducts, exhaust equipment, and kitchen hoods shall be brought into compliance with all the requirements in §§506 and 507 of the Mechanical Code.

There are some occupancy classifications that may be conspicuous by their absence under Regulation .12. For example, there are no special considerations for a change to an assembly use. (However, regulation .12 does apply when changing from one assembly use to another). Note that while changes to Groups F-1, M or S-1 might otherwise require automatic suppression systems, changes to such uses typically will not qualify to use Regulation .12 because at least one of the tables would result in a higher hazard classification.

. 13 FIRE AND LIFE SAFETY — MEANS OF EGRESS.

Regulation .13 applies to “Change of Occupancy Classification.”

A. Table A.

Table A

**HAZARD CATEGORIES AND CLASSIFICATIONS:
LIFE SAFETY AND EXITS**

Relative Hazard	Occupancy Classification
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, B, E, F-1, I-1, M, R, S-1
4 (Lowest Hazard)	F-2, S-2, U

Table A is based on the travel distances permitted for the various occupancy classifications in the IBC.

B. Means of Egress for Change to a Higher Hazard Category.

(1) Requirement. When a change of occupancy classification is made to a higher hazard category (lower number) as shown in Table A, egress capacity, arrangement of the means of egress, and all

elements of the means of egress, including but not limited to the exit access, exit discharge, occupant load, corridors, doors, enclosures, stairs and ramps, guards and handrails, means of egress doorways, fire escapes, and exit lighting and signs, shall comply the applicable requirements of the Fire Prevention Code.

(2) Exceptions. The following are exceptions to the requirement of §B(1) of this regulation:

- (a) Stairways shall be enclosed in compliance with applicable portions of Regulation .14 of this chapter;
- (b) Existing stairways, including handrails and guards that are in compliance with the requirements of COMAR 05.16.05, are permitted for continued use subject to approval of the authority having jurisdiction;
- (c) Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced is not required to be in compliance with the maximum riser height and minimum tread depth requirements;
- (d) Existing corridor walls constructed of wood lath and plaster in good condition or 1/2-inch-thick (12.7 millimeter) gypsum wallboard is permitted;
- (e) Existing corridor doorways, transoms, and other corridor openings shall be in compliance with the requirements in COMAR 05.16.05.06C, D, and E;
- (f) Existing dead-end corridors shall be in compliance with the requirements in COMAR 05.16.05.07; and
- (g) An existing operable window with clear opening area not less than 5 square feet, and with minimum opening height and width of 22 inches and 20 inches, respectively, is accepted as an egress window.

| **Note that other protection provisions in Chapter 05 (Reconstruction) may also apply.**

C. Means of Egress for a Change to an Equal or Lesser Hazard Category.

(1) Requirements. When a change of occupancy classification is made to an equal or lesser hazard category as shown in Table A, existing elements of the means of egress shall be in compliance with the requirements of COMAR 05.16.05.02 — .10 for the new occupancy classification. Newly constructed or configured means of egress shall be in compliance with the applicable requirements of the Fire Prevention Code.

(2) Exceptions. The following are exceptions to the requirement of §C(1) of this regulation:

- (a) Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced is not required to be in compliance with the maximum riser height and minimum tread depth requirements; and

(b) Compliance with COMAR 05.16.05.02 — .10 is not required when the change of occupancy is in compliance with the requirements of Regulation .12 of this chapter.

D. Egress Capacity. Egress capacity shall meet or exceed the occupant load as specified in COMAR 05.16.05.02 — .10 if the change of occupancy is to an equal or lesser hazard category when evaluated in accordance with Table A.

.14 FIRE AND LIFE SAFETY — ENCLOSURE OF VERTICAL SHAFT REQUIREMENTS.

Regulation .14 applies to “Change of Occupancy” and “Change of Occupancy Classification.”

A. General Requirement. Vertical shafts shall be designed to meet the Building Code requirements for atriums, or the requirements of this regulation.

B. Stairways.

(1) Requirement. When a change of occupancy classification is made to a higher hazard category as shown in Table A, interior stairways shall be enclosed as required by the Fire Prevention Code.

(2) Exceptions.

(a) Exceptions to the requirement of §B(1) of this regulation are provided in this subsection.

(b) In other than Group I, an enclosure is not required for openings serving only one adjacent floor and not connected with corridors or stairways serving other floors.

(c) When there is at least one exit that is in compliance with the Fire Prevention Code, unenclosed existing stairways are not required to be enclosed in a continuous vertical shaft if each story is separated from other stories by 1-hour fire-resistive construction or approved wired glass set in steel frames and all exit corridors are sprinklered. The openings between the corridor and occupant space shall have at least one sprinkler head above the openings of the tenant side. The sprinkler system may be supplied from the domestic water-supply systems, if the system is of adequate pressure, capacity, and sizing for the combined domestic and sprinkler requirements.

(d) Existing penetrations of stairway enclosures are accepted if they are properly protected in accordance with the Fire Prevention Code.

The Fire Prevention Code restricts penetrations of exit enclosures . Exception (d) would permit existing penetrations beyond those permitted by the Fire Prevention Code if they are properly protected to maintain the fire resistance rating of the exit enclosure. The exception does not permit a new penetration unless it would also be permitted by the Fire Prevention Code.

C. Shafts Enclosing Commercial Kitchen Exhaust Ducts. When a change of occupancy classification is made to a higher hazard category as shown in Table A, shafts enclosing commercial kitchen exhaust ducts shall be enclosed as required by the Fire Prevention Code.

D. Other Vertical Shafts.

(1) Requirement. Interior vertical shafts other than stairways and those enclosing commercial kitchen exhaust ducts, including but not limited to elevator hoistways and service and utility shafts, shall be enclosed as required by the Fire Prevention Code when there is a change of occupancy to a higher hazard category in Table A.

(2) Exceptions. The following are exceptions to the requirement of §D(1) of this regulation:

- (a) Existing 1-hour interior shaft enclosures shall be accepted where a higher rating is required;
- (b) Vertical openings, other than stairways, are not required to be enclosed if the entire building is provided with an approved automatic sprinkler system; and
- (c) When 1-hour fire-resistive floor construction is required, vertical shafts are not required to be enclosed when floor penetrations are fire-stopped at every floor level.

E. Openings. All openings into existing vertical shaft enclosures shall be protected by fire assemblies having a fire-protection rating of not less than 1 hour and shall be maintained self-closing or shall be automatic closing by actuation of a smoke detector. All other openings shall be fire-protected in an approved manner. Existing fusible link-type automatic door-closing devices are permitted in all shafts except stairways if the fusible link rating does not exceed 135°F (75°C).

. 15 FIRE AND LIFE SAFETY — HEIGHTS AND AREAS.

Regulation .15 applies to “Change of Occupancy Classification.”

A. Table B.

Table B

**HAZARD CATEGORIES AND CLASSIFICATIONS:
HEIGHTS AND AREAS**

Relative Hazard	Occupancy Classification
1 (Highest Hazard)	H
2	A, I, M, R, U
3	E, F-1, S-1
4 (Lowest Hazard)	B, F-2, S-2

Table B is based on the relative hazards associated with the occupancy classification as determined in Table 503 of the Building Code (Allowable Height and Building Areas).

B. Change to a Higher Hazard Category.

(1) Requirement. When a change of occupancy classification is made to a higher hazard category as shown in Table B, heights and areas of buildings and structures shall meet the limitations of Chapter 5 of the Building Code for the new occupancy classification.

(2) Exception. An exception to the requirement of §B(1) of this regulation is that a one-story building changed into Group E is not required to meet the area limitations of the Building Code.

C. Change to Equal or Lesser Hazard Category. When a change of occupancy classification is made to an equal or lesser hazard category as shown in Table B, the height and area of the existing building shall be deemed to be acceptable.

Even if the height or area exceeds the level the Building Code permits, if the change is to a lesser hazard, the existing height and area are deemed to be acceptable. Any additions to the existing building must comply with Chapter 07 (Additions).

D. Fire Separation.

(1) Requirement. When a change of occupancy classification is made to a higher hazard category as shown in Table B, fire barrier walls or horizontal assemblies, or both, in mixed use buildings shall be in compliance with the requirements for mixed occupancies in §302.3 of the Building Code.

(2) Exception. Where the fire barrier walls are required to have a 1-hour fire-resistance rating, existing wood lath and plaster in good condition or existing stud wall clad in 1/2-inch-thick (12.7 millimeter) gypsum wallboard or other equivalent assemblies are permitted.

.16 FIRE AND LIFE SAFETY — EXTERIOR WALL FIRE-RESISTANCE RATINGS.

Regulation .16 applies to “Change of Occupancy Classification.”

A. Table C.

Table C

**HAZARD CATEGORIES AND CLASSIFICATIONS:
EXPOSURE OF EXTERIOR WALLS**

Relative Hazard	Occupancy Classification
1 (Highest Hazard)	H
2	F-1, M, S-1
3	A, B, E, I, R
4 (Lowest Hazard)	F-2, S-2, U

Table C is based on the IBC and the BOCA Code provisions for fire resistance ratings of the exterior wall at a fire separation distance of up to 5 feet.

B. Change to a Higher Hazard Category.

(1) Requirements. When a change of occupancy classification is made to a higher hazard category as shown in Table C, exterior walls shall have fire-resistance and exterior opening protectives as required in Chapter 7 of the Building Code. This provision does not apply to walls at right angles to the property line.

(2) Exception. When a fire-resistance rating greater than 2 hours is required for a building of any type of construction, existing noncombustible exterior walls having a fire resistance rating equivalent to 2 hours as determined by “HUD Guideline on Fire Ratings of Archaic Materials and Assemblies” or other approved sources shall be accepted, if the building does not exceed three stories in height and is classified as one of the following Groups: Group A-3 with an occupant load of less than 300, Group B, Group F, Group M, or Group S.

C. Change to Equal or Lesser Hazard Category. When a change of occupancy classification is made to an equal or lesser hazard category as shown in Table C, existing exterior walls, including openings, shall be accepted.

D. Opening Protectives.

(1) Requirements. Openings in exterior walls shall be protected as required by the Building Code. When openings in the exterior walls are required to be protected due to distance from the property line, the sum of the area of these openings may not exceed 50 percent of the total area of the wall in each story.

(2) Exceptions. The following are exceptions to the requirement of §D(1) of this regulation:

(a) When the Building Code permits openings in excess of 50 percent;

(b) Existing openings are not required to be protected in buildings of Group R that do not exceed three stories in height and that have a fire separation distance of at least 3 feet (914 millimeters);

(c) When exterior opening protectives are required, an automatic sprinkler system throughout may be substituted for opening protection; and

(d) Exterior opening protectives are not required when the change of occupancy classification is to an equal or lower hazard classification in accordance with Table C.

.17 STRUCTURAL SAFETY.

Regulation .17 applies to “Change of Occupancy” and “Change of Occupancy Classification.”

A. Live Loads.

(1) Requirements. An existing structure in which the proposed new occupancy requires floor live loads equal to or less than required for the existing occupancy is permitted to be continued in use for the originally approved live loads, if the structure is not dangerous and is adequate for the proposed occupancy. If the approved floor live load is less than required by §1607 of the Building Code, the areas designed for the reduced live load shall be posted with the approved load or shall be structurally strengthened to support the new load. Placards shall be of an approved design.

(2) Exception. An exception to the requirement of §A(1) of this regulation is that methods specified in the code under which the building was constructed, the current Building Code, or other standards as approved by the authority having jurisdiction may be used for analysis and test methods for evaluation of existing materials.

B. Vertical Loads on Roofs.

(1) Requirement. Buildings and structures shall be in compliance with the roof load requirements of §1607.11 of the Building Code for roof live load.

(2) Exception. An exception to the requirement of §B(1) of this regulation is that existing roofs may be retained, if any unsafe or overloaded conditions are corrected and when the roof dead load is not increased by use, reroofing, or added equipment.

C. Wind and Snow Loads. When a change of occupancy results in an existing building being assigned a higher wind load or snow load importance factor in accordance with Table 1604.5 of the Building Code, the building shall be strengthened to meet the wind load or snow load requirements of §§1609 and 1608, respectively, of the Building Code.

D. Earthquake Loads.

(1) Requirement. When a change of occupancy results in an existing building being reclassified to a higher hazard category as shown in Table D, the building shall be strengthened to meet the earthquake requirements of §§1613 — 1623 of the Building Code.

(2) Exceptions. The following is an exception to the requirement of §D(1) of this regulation: For buildings located in seismic map areas having an effective peak velocity-related acceleration (A_v) value of less than 0.15 (applicable throughout the State), strengthening the building to meet the seismic requirements for new buildings is required only when the change of occupancy results in a building being reclassified to hazard category 1 (highest). All other buildings so located are not required to be strengthened.

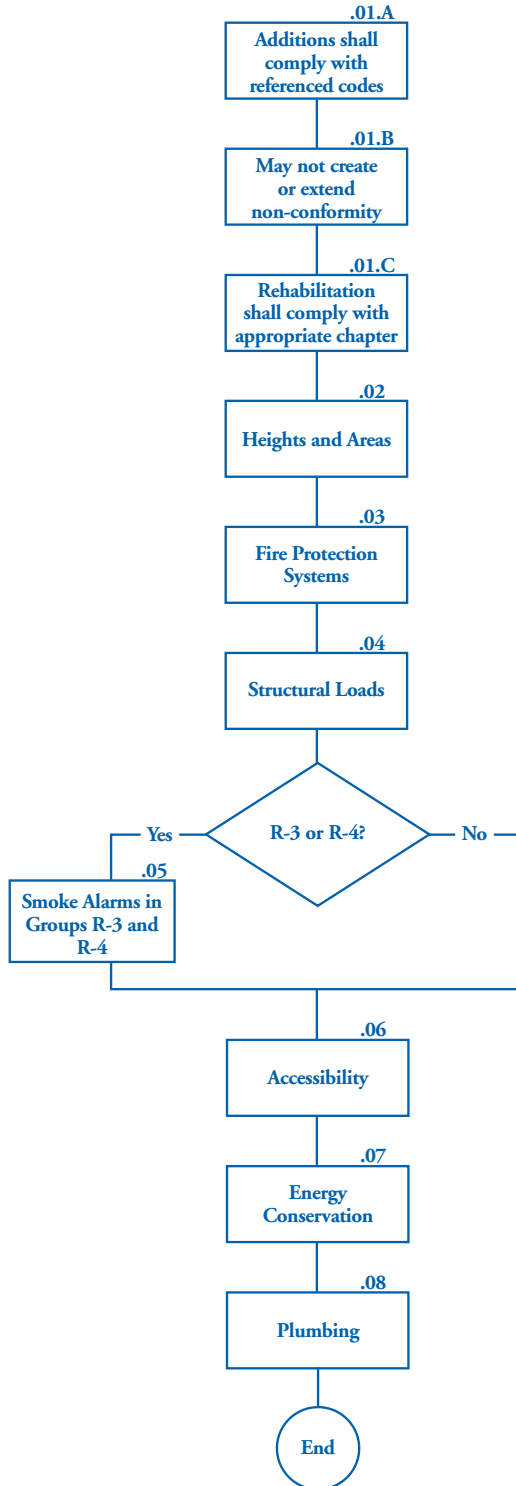
The exception is based on the National Earthquake Hazard Reduction Program's "Recommended Provisions for Seismic Regulations for New Buildings and Other Structures," and is in the IBC. A_v is the effective peak velocity-related acceleration, indicated as the decimal equivalent of the percent of gravity (*i.e.*, 0.15 = 15 percent of the acceleration of gravity). $A_v < 0.15$ applies to the entire State of Maryland.

E. Table D.

SEISMIC HAZARD CATEGORIES	
Relative Hazard	Occupancy Classification
1 (Highest Hazard)	H-1, H-4 and H-5 with highly toxic materials I-2 (hospitals) B (fire, rescue, and police stations) B (emergency preparedness centers) B (primary communication facilities) S (post-earthquake recovery vehicle garages) F (power-generating stations and other utility facilities required for emergency backup)
2	A, E, I-1, I-2 (all others), I-3, H-2, H-3, H-5 F (power-generating stations and other public utilities not listed in Relative Hazard 1) B (used for adult education with an occupant load 500) Any building with an occupant load 5000
3	I-4, R-1, R-2, R-4
4	F-1, S-1, H-4
5	B (all others), F-2, M (all others), S-2
6 (Lowest Hazard)	R-3, U

Table D is a combination of the National Earthquake Hazard Reduction Program's Seismic Hazard Exposure Groups included in the IBC, with the hazard classifications in the International Conference of Building Officials' Uniform Code for Building Conservation.

EVALUATION FLOW CHART FOR CODE REQUIREMENTS IN
CHAPTER 07 - ADDITIONS



05.16.07 ADDITIONS

.01 GENERAL REQUIREMENTS.

- A. An addition to a building or structure shall comply with the Building Code, Mechanical Code, Plumbing Code, Fire Prevention Code, Electrical Code, Boiler Code, Energy Code, Elevator Code, and Accessibility Code, without requiring the existing building or structure to comply with any requirements of those codes or of this chapter.
- B. An addition may not create or extend any nonconformity in the existing building to which the addition is constructed with regard to accessibility, structural strength, fire safety, means of egress, or the capacity of mechanical, plumbing, or electrical systems.
- C. Any repair, renovation, modification, or reconstruction work within an existing building to which an addition is being made shall comply with the requirements of COMAR 05.16.02 — 05.16.05, respectively.

.02 HEIGHTS AND AREAS.

- A. Requirement. An addition may not increase the height or area of an existing building beyond that permitted under the applicable provisions of Chapter 5 of the Building Code for new buildings unless fire separation as required in the Building Code is provided.
- B. Exceptions. The following are exceptions to the requirement of §A of this regulation:
- (1) Existing one-story and two-story buildings may be increased in area beyond that which is permitted by up to 25 percent of the existing floor area, not to exceed an area of 125 percent of that which is permitted by the Building Code, without providing fire separation; and
 - (2) Infilling of floor openings, nonoccupiable appendages such as elevator and exit stair shafts, and the addition of mezzanines and equipment penthouses are permitted beyond that which is permitted by the Building Code.

Exception (1) allows an existing building (1- or 2- story) to be increased in area up to 125% of its area or up to the area permitted by the Building Code for new construction, whichever is greater. In no case can the building be increased beyond 125% of the area permitted by the Building Code.

The limit of 125% of the Building Code is 125% of one of the following, if the building is entitled to these increases: Allowable Heights and Areas, Table 503; Area Modifications General, Section 506.1; and Automatic Sprinkler System Increase, Section 506.3.

.03 FIRE PROTECTION SYSTEMS.

Existing fire areas increased by the addition shall be protected with an automatic sprinkler system as required by Chapter 9 of the Building Code. The fire area size shall be determined by fire barriers having a fire resistance rating as determined in accordance with COMAR 05.16.05.15D.

The Building Code is referenced here to cover sprinkler provisions in locations that the Fire Prevention Code does not. The fire area size is based on physical barriers to fire spread and rated partitions.

.04 STRUCTURAL LOADS.

A. An addition may not impose loads that would cause the existing building to be subject to stresses exceeding those permitted by the Building Code.

B. An addition may not increase the stress in any structural element of the existing building or structure by more than 5 percent, unless the increased stress on the element is still in compliance with the Building Code for new structures.

Load and stress are not synonyms. Load is the weight carried by a member. Stress is the effect of a load on the member.

.05 SMOKE ALARMS IN GROUPS R-3 AND R-4.

A. When an addition is made to a building or structure of Group R-3 or R-4, hardwired, interconnected smoke alarms meeting the requirements of the Fire Prevention Code shall be installed and maintained in the addition.

Smoke detector requirements in the MBRC are taken from the Fire Prevention Code, which in general requires the following for additions:

R-3 and R-4 Buildings

Detectors are required outside each sleeping area

Hard wired detectors with battery backup are required on each level

Detectors must be interconnected if the addition is built after January 1, 1989

B. When an addition is made to a building or structure of Group R-3 or R-4, the existing building shall be provided with smoke alarms as required by the Fire Prevention Code for existing buildings.

In general, the Fire Prevention Code for existing buildings requires the following:

R-3 and R-4 Buildings

Detectors are required outside each sleeping area

Hard wired detectors are required in each dwelling unit built between 1975 and 1990

Hard wired detectors with battery backup are required on each level built after 1990

The detectors must be interconnected if built after January 1, 1989.

.06 ACCESSIBILITY.

Additions shall comply with COMAR 05.16.03.03.

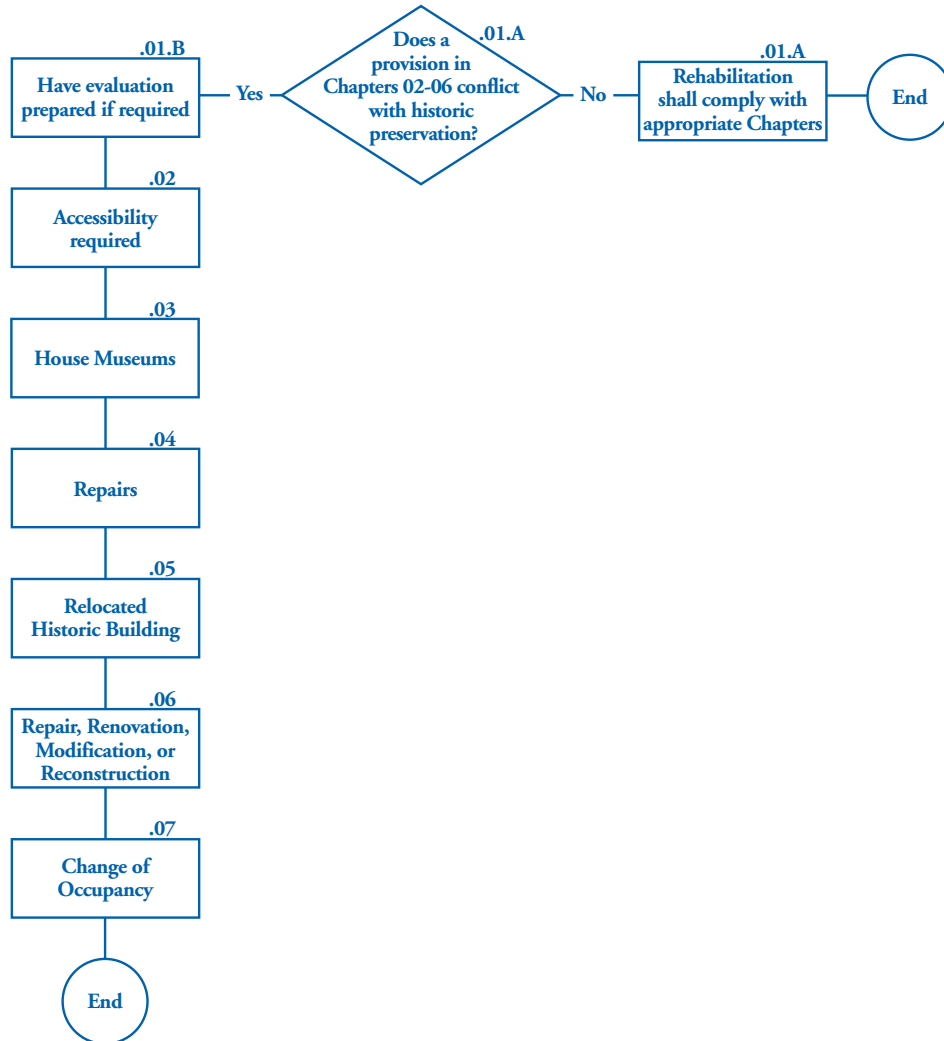
.07 ENERGY CONSERVATION.

Additions to existing buildings or structures may be made to these buildings or structures without making the entire building or structure be in compliance with the requirements of the Energy Code. The addition shall conform to the requirements of the Energy Code as they relate to new construction only, if an allowable amount of glass in the addition is based on the area of the entire building.

.08 PLUMBING.

In areas where public sanitary sewers are not available, existing structures that are being enlarged and discharge liquid wastes containing grease, flammable wastes, sand, solids, and other ingredients harmful to the building drainage system shall either have all existing floor drains permanently plugged, or all existing floor drains retrofitted so as to allow them to flow into an approved sand interceptor that drains into a 1,000-gallon or larger approved holding tank.

EVALUATION FLOW CHART FOR CODE REQUIREMENTS IN
CHAPTER 08 - HISTORIC BUILDINGS



05.16.08 HISTORIC BUILDINGS

.01 GENERAL REQUIREMENTS.

A. Historic buildings shall comply with the provisions of this chapter, or with the provisions of COMAR 05.16.02 — 05.16.06, relating to their repair, renovation, modification, reconstruction, movement and change of occupancy.

The intent of the Historic Buildings Chapter is to provide historic buildings undergoing rehabilitation projects or changes of use alternative compliance options if the enforcement of one or more provisions in the previous chapters would conflict with historic preservation goals. Historic buildings need not use this chapter, but they may choose to do so. The decision of whether to use Chapter 08 (Historic Buildings) provisions is up to the design team. The authority having jurisdiction may not require the use of Chapter 08 (Historic Buildings).

B. Alternatives.

(1) Requirements. An historic building undergoing modification, reconstruction, or change of occupancy shall be investigated and evaluated. If it is intended that the building meet the requirements of this chapter, a written report shall be prepared for the building and filed with the local jurisdiction by an engineer or architect licensed in the State. If the subject matter of the report does not require an evaluation by an architect or engineer, the local jurisdiction may allow the report to be prepared by a licensed building contractor, electrician, plumber, mechanical contractor, or a certified interior designer responsible for the work. The licensed person preparing the report shall be knowledgeable in historic preservation or the report shall be co-authored by a preservation professional. This report shall identify each required safety feature in compliance with this chapter and when compliance with other chapters of this subtitle would be damaging to the contributing historic features. In addition, the report shall describe each feature not in compliance with this subtitle and demonstrate how the intent of this subtitle is being complied with in providing an equivalent level of safety. The local preservation official shall review and comment on the written report or may request and review comments on the report from the State Historic Preservation Officer.

This section is intended to document the requirements and alternatives accepted by the building official, if the owner wishes to benefit from the exceptions offered by this chapter. It is important to have a complete record of all decisions made.

The applicant and the building official should coordinate any work with the local or state commission responsible for historic buildings to assure that the work is in compliance with the State or local requirements.

For buildings not subject to the exception below, a licensed design professional must prepare an alternate compliance report to use this section. If the “modification” or “reconstruction” is a single system project or the scope is such that a design professional is not involved, the report may be written by a licensed tradesman as listed above. The author of the report must have experience in historic projects.

Review by the local preservation official or the State Historic Preservation Officer does not replace review by the local authority having jurisdiction. In most jurisdictions, the local preservation official does not have the authority to approve construction drawings or permit applications. Nothing in the MBRC is intended to create such authority.

(2) Exception. An exception to §B(1) of this regulation is that, unless determined by the local jurisdiction that a report is required to protect the health and safety of the public, a building or structure being rehabilitated for the personal use of the owner or a member of the immediate family of the owner and is not intended for any use or occupancy by the public, including assembly or employment, does not require the submission of a report.

.02 ACCESSIBILITY REQUIREMENTS.

The accessibility requirements contained in this regulation apply to historic buildings undergoing renovations, modifications, reconstruction, or a change of occupancy. If the historic character of the building is adversely affected, and the building is required to be in compliance with ADAAG by the provisions of COMAR 05.16.03.03A, substantially equivalent alternative provisions of accessibility are permitted in accordance with COMAR 05.02.02.08. If the historic character of the building is adversely affected, and the building is required to comply with the additional State requirements set forth in COMAR 05.16.03.03A, a waiver may be requested in accordance with COMAR 05.02.02.09.

.03 SPECIAL OCCUPANCY EXCEPTIONS — HOUSE MUSEUMS.

When a building in Group R-3 is also used for Group A, B, or M purposes, such as museum tours, exhibits, and other public assembly activities, the local jurisdiction may make a determination that the occupancy is Group B when life safety can be demonstrated in accordance with Regulation .01B of this chapter. Adequate means of egress in these buildings, which may include a means of maintaining doors in an open position to permit egress, a limit on building occupancy to an occupant load permitted by the means of egress capacity, a limit on occupancy of certain areas or floors, or supervision by a person knowledgeable in the emergency exiting procedures, shall be provided.

House museums are used for tours and other events several times per year while normally functioning as single family dwellings. They also can be structures built as houses but currently used as museums or galleries. This section enables the local jurisdiction to consider the individual safety of each building used in these manners.

.04 REPAIRS.

Repairs to any portion of a historic building or structure may be made with original or like materials and original methods of construction, subject to the provisions of this chapter.

This provision is similar to Chapter 02 (Repair), but exempts historic buildings from that chapter's exceptions.

.05 RELOCATED HISTORIC BUILDINGS.

A. Construction. Any repair, renovation, modification, reconstruction, movement, and change of use of relocated historic structures shall be in compliance with the requirements of this chapter.

B. Foundations. Foundations of relocated historic buildings and structures shall comply with Chapter 18 of the Building Code. Relocated historic buildings shall otherwise be considered as historic buildings for the purposes of this subtitle.

Typically, the Building Code treats relocated buildings as new structures. Historic buildings that are relocated may be considered as existing historic buildings.

C. Relocated historic buildings and structures shall be situated so that fire separation distance and opening protectives are in compliance with the requirements of paragraphs 704.5 and 704.8 of the Building Code.

.06 REPAIR, RENOVATION, MODIFICATION, OR RECONSTRUCTION.

A. General. Historic buildings undergoing repair, renovation, modification, or reconstruction shall be in compliance with all the applicable requirements of COMAR 05.16.02 — 05.16.05, except as specifically permitted in this chapter.

B. Replacement.

(1) Requirements. Replacement of existing or missing features using original or like materials is permitted. Partial replacement for repairs that match the original in configuration, height, and size is permitted. These replacements are not required to meet the materials and methods requirements in COMAR 05.16.02.01.

(2) Exception. An exception to the requirements of §B(1) of this regulation is that replacement glazing in hazardous locations shall comply with COMAR 05.16.02.01C(4).

C. Roof Covering. The existing type of roof covering may be continued and replaced with the same materials if the historic materials are documented to the satisfaction of the local jurisdiction.

The requirement that historic materials be documented refers to the historic accuracy and significance of the roofing system.

D. Means of Egress. Existing door openings, window openings intended for emergency egress, and corridor and stairway widths of less than those that would be acceptable for nonhistoric buildings under this subtitle shall be approved, if, in the opinion of the local jurisdiction, there is sufficient width and height for an individual to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load, or where other operational controls to limit occupancy are approved by the local jurisdiction.

This provision enables the local jurisdiction to accept egress conditions in historic buildings that it might not accept in non-historic buildings

E. Door Swing. When approved by the local jurisdiction, the existing front doors are not required to swing in the direction of exit travel, if other approved exits having sufficient capacity to serve the total occupant load are in place.

This provision is an exception to Chapter 05 (Reconstruction), Regulation .06G, which requires doors serving over 50 occupants to swing in the direction of exit travel.

F. Transoms. In fully sprinklered buildings of Groups I-1, R-1, and R-2, existing transoms in corridors and other fire rated walls may be maintained if fixed in the closed position. A sprinkler shall be installed on each side of the transom.

This provision allows non-wired glass transoms to remain. Chapter 05 (Reconstruction), Regulation .06D would otherwise require that fixed wired glass be used, regardless of sprinklering. In other occupancies, transoms are unregulated.

G. Interior Finish Requirements.

(1) Requirement. The existing finishes of walls and ceilings shall be accepted when it is demonstrated that it is the historic finish.

This provision is an exception to Chapter 05 (Reconstruction), Regulation .11.

(2) Exception. The following are exceptions to the requirement of §G(1) of this regulation:

- (a) In buildings other than Group R-3, finishes in exitways shall have a flame-spread classification of Class III or better; and
- (b) Existing nonconforming materials shall be surfaced with an approved fire-retardant paint or finish unless the building is equipped throughout with an automatic fire sprinkler system installed in accordance with the Fire Prevention Code.

The intent of Exception (b) is to permit existing finishes, often wood wainscots and paneling, to remain. “Nonconforming” refers to Subsection (2)(a), not the interior finish requirements of the IBC or Chapters 02 (Repairs) through 05 (Reconstruction) of the MBRC.

H. Stairway Enclosure.

- (1) Stairway enclosures may be omitted in an historic building when the stairway serves only one adjacent floor.
- (2) In buildings of three stories or less, exit enclosure construction shall limit the spread of smoke by the use of tight-fitting doors and solid elements. These elements are not required to have a fire rating.

This provision is intended to control smoke rising upward through a building. By enclosing the stairs with non-rated materials, including plain glass, there is improved safety. This exception goes beyond the various exceptions to stairway enclosure allowed in Chapter 05 (Reconstruction), Regulation .12.

This section uses the term “exit.” Exit enclosures complying with the above requirement are “exits.” Accordingly, travel distance is measured only to the entrance of the “exit.”

I. One-Hour Fire-Resistive Assemblies. When 1-hour fire-resistive construction is required by this subtitle, it is not required to be provided when the existing wall and ceiling finish is wood lath and plaster, regardless of construction or occupancy.

Plaster and wood lath typically provide an estimated fire resistance rating of 45 minutes.

J. Stairway Railing. Grand stairways shall be accepted without being in compliance with the handrail and guardrail requirements. Existing handrails and guards may remain if they are not structurally dangerous.

This provision relieves grand stairways from compliance with Chapter 05 (Reconstruction), Regulations .10A(3) and .10B(2), newly constructed handrails and guards need not comply with the Building Code requirements for new construction. This provision is a specific application of Regulation .06B of this chapter allowing replacement of historic fabric.

K. Exit Signs. The local jurisdiction shall accept alternate exit sign or egress path marking location when these signs or markings would have an adverse effect upon the historic character. Alternative signs shall identify the exits and egress path.

This provision is an exception to Chapter 05 (Reconstruction), Regulation .09, which requires exit signs in accordance with the Fire Prevention Code. The MBRC does not specify the design, appearance, or illumination of the “alternative signs.” The “alternative signs” should clearly direct occupants to exits under conditions expected in the occupancy. The authority having jurisdiction must approve the “alternative signs.”

L. Sprinkler Alternative. Every historic building that does not conform to the construction requirements specified in other chapters of this subtitle for occupancy or use, and which, in the opinion of the local jurisdiction, constitutes a fire safety hazard shall be equipped throughout with an automatic sprinkler system installed in accordance with the Fire Prevention Code. However, this automatic sprinkler system may not be used to substitute for, or act as an alternate to, the required number of exits from any facility.

The intent of the fire sprinkler system for life safety hazards is to provide the level of safety intended by the Fire Prevention Code without requiring major changes in the building. The section does not identify all the conditions that might require such a system, permitting this to be discussed by the local jurisdiction and the construction professional, and documented as part of the building report in Regulation .01B of this chapter.

The installation of a required sprinkler system may not be used in lieu of upgrading the number of exits to meet the exit requirement of this chapter.

.07 CHANGE OF OCCUPANCY.

The set of provisions below are similar to the provisions of Regulation .06, and the commentary in those sections also applies here.

A. General. Historic buildings undergoing a change of occupancy shall comply with the applicable provisions of COMAR 05.16.06 except as specifically permitted in this chapter. When COMAR 05.16.06 requires compliance with specific requirements of COMAR 05.16.05, and when those requirements are subject to exceptions in Regulation .06 of this chapter, the same exceptions apply in this regulation.

B. Building Area. The allowable floor area for historic buildings undergoing a change of occupancy may exceed the allowable areas specified in COMAR 05.16.06 by 20 percent.

C. Location on Property. Alternative methods may be used on historic structures undergoing a change of use to a higher hazard category in accordance with COMAR 05.16.06.15A in order for these structures to be in compliance with the fire-resistance and exterior opening protective requirements. These alternatives shall comply with Regulation .01B of this chapter.

This provision allows the local jurisdiction to consider the specific building location and site conditions, and to make allowances beyond those permitted in Chapter 06 (Change of Use and Occupancy).

D. Roof Covering. Regardless of occupancy or use group, roof-covering materials not less than Class C are permitted when a fire-retardant roof covering is required.

This option permits most historic roofs to remain, but requires them to have a fire retardance rating.

E. Means of Egress. Existing door openings, window openings intended for emergency egress, and corridor and stairway widths of less than those that would be acceptable for nonhistoric buildings under this subtitle shall be approved, if, in the opinion of the local jurisdiction, there is sufficient width and height for an individual to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load, or when other operational controls to limit occupancy are approved by the local jurisdiction.

F. Door Swing. When approved by the local jurisdiction, the existing front doors are not required to swing in the direction of exit travel, if other approved exits having sufficient capacity to serve the total occupant load are in place.

G. Transoms.

(1) Requirement. In corridor walls required to be fire rated by this subtitle, existing transoms may be maintained if fixed in the closed position and fixed wired glass set in a steel frame or other approved glazing is installed on one side of the transom.

(2) Exception. An exception to the requirement of §G(1) of this regulation is that transoms conforming to Regulation .06F of this chapter are accepted.

H. Finishes.

(1) Requirement. When finish materials are required to have a flame-spread classification of Class III or better, existing nonconforming materials shall be surfaced with an approved fire-retardant paint or finish.

(2) Exception. An exception to the requirement of §H(1) of this regulation is that existing nonconforming materials are not required to be surfaced with an approved fire-retardant paint or finish when the building is equipped throughout with an automatic fire suppression system installed in accordance with the Fire Prevention Code, and the nonconforming materials can be substantiated as historic in character.

I. One-Hour Fire-Resistive Assemblies. When 1-hour fire-resistive construction is required by this subtitle, it is not required to be provided regardless of construction or occupancy when the existing wall and ceiling finish is wood lath and plaster.

J. Stairs and Railing. Existing stairways shall be in compliance with the requirements of this subtitle. The local jurisdiction shall grant alternatives for grand stairways and railings if alternative stairways are found to be acceptable or if judged as meeting the intent of this subtitle. Existing stairways shall be in compliance with Regulation .06J of this chapter.

This provision extends the exception granted in Regulation .06J of this chapter for a change of occupancy to a higher hazard in accordance with Table A of Chapter 06 (Change of Use and Occupancy).

K. Exit Signs. The local jurisdiction may accept alternate exit sign locations when these signs would have an adverse effect upon the historic character. These signs shall identify the exits and exit path.

L. Exit Stair Live Load. Existing historic stairways in buildings changed to Groups R-1 and R-2 are accepted when it can be shown that the stairway can support a 75-pound/square foot live load.

M. Natural Light. When it is determined by the local jurisdiction that compliance with the natural light requirements of COMAR 05.16.06.08 will lead to loss of historic character or historic materials in the building, the existing level of natural lighting is considered acceptable.

In some cases, the amount of natural light may be less than the code minimum. However, the space may still receive sufficient natural light and the specific area may be inspected and permitted to remain. For example, a building intended as a bed-and-breakfast facility that has inadequate window area may still have adequate natural light.

ADDENDUM

MARYLAND BUILDING REHABILITATION CODE
ARTICLE 83B, SECTION 6-501 TO 6-505
OF THE
ANNOTATED CODE OF MARYLAND

2000 Supplement — Housing and Community Development

§ 6-501. APPLICABILITY OF SUBTITLE.

The provisions of this subtitle shall be effective notwithstanding any other provisions of law. The provisions of this subtitle do not supersede the planning, zoning, or subdivision authority of local jurisdictions, the Maryland-National Capital Park and Planning Commission, or the Washington Suburban Sanitary commissions.

§ 6-502. DEFINITIONS.

- (a) In general. — In this subtitle the following words have the meanings indicated.
- (b) Addition. — “Addition” means an increase in:
- (1) Building area;
 - (2) Aggregate floor area;
 - (3) Height; or
 - (4) Number of stories of a building or structure.
- (c) Change of occupancy. — “change of occupancy” means a change in the purpose or level of activity within a structure that involves a change in application of the requirements of the local building code.
- (d) Construction permit application. — “Construction permit application” means any application made to a local jurisdiction for a permit or other government approval for a rehabilitation project.
- (e) Existing building. — “Existing building” means any building or structure that was erected and occupied or issued a certificate of occupancy at least one year before a construction permit application for that building or structure was made to a local jurisdiction.

(f) Local jurisdiction. — “Local jurisdiction” means any of the 23 counties in Maryland, the City of Baltimore, and any municipal corporation in Maryland subject to the provisions of Article XI-E of the Constitution.

(g) MBRC. — “MBRC” means the Maryland Building Rehabilitation Code.

(h) Modification. — “Modification” means the:

- (1) Reconfiguration of any space;
- (2) Addition or elimination of any door or window;
- (3) Reconfiguration or extension of any system; or
- (4) Installation of any additional equipment.

(i) Reconstruction. — “Reconstruction” means:

- (1) The reconfiguration of a space which affects an exit or element of the egress access shared by more than a single occupant;
- (2) The reconfiguration of space such that the work area is not permitted to be occupied because existing means of egress and fire protection systems, or their equivalent, are not in place or continuously maintained; or
- (3) Extensive modifications.

(j) Rehabilitation project. — “Rehabilitation project” means any construction work undertaken in an existing building that includes repair, renovation, modification, reconstruction, change of occupancy, or addition.

(k) Renovation. —

(1) “Renovation” means the:

- (i) Change, strengthening, or addition of load bearing elements; or
- (ii) Refinishing, replacement, bracing, strengthening, upgrading, or extensive repair of existing materials, elements, components, equipment, or fixtures.

(2) “Renovation” does not include:

- (i) Reconfiguration of space; or
- (ii) Interior and exterior painting.

(l) Repair. — “repair” means the patching, restoration, or minor replacement of materials, elements, components, equipment, or fixtures for the purposes of maintaining these materials, elements, components, equipment, or fixtures in good or sound condition.

§ 6-503. ADOPTION; MODEL; PURPOSE; REVIEW OF PROPOSED REGULATIONS; PROPOSED CHANGES OR AMENDMENTS.

(a) Adoption. — The Department, in cooperation with the Maryland Building Rehabilitation Code Advisory Council, the Department of Labor, Licensing, and Regulation, and the State Fire Marshal, shall adopt by regulation the Maryland Building Rehabilitation Code. The MBRC shall be modeled on the nationally applicable recommended rehabilitation provisions developed by the United States Department of Housing and Urban Development and the National Association of Home Builders Research Center.

(b) Purpose. — The purpose of the Maryland Building Rehabilitation Code is to encourage and facilitate the rehabilitation of existing buildings by reducing the costs and constraints on rehabilitation resulting from existing procedures and standards.

(c) Duties. —

(1) As provided under the Administrative Procedure Act, the Department shall:

(i) Submit to the Joint Committee on Administrative, Executive, and Legislative Review the proposed regulations to adopt the MBRC on or before December 31, 2000; and

(ii) Adopt the MBRC as soon as possible thereafter.

(2) The Department, in cooperation with the Maryland Building Rehabilitation Code Advisory Council, shall review the MBRC and adopt any necessary or desirable revisions at least every 3 years.

(d) Applicability. — Except as otherwise permitted in this title and notwithstanding any provisions of Articles 23A, 25, 25A, 25B, 28, and 29 of the Code and building codes, mechanical codes, plumbing codes, fire prevention codes, and electrical codes adopted thereunder, the MBRC shall apply to all rehabilitation projects for which a construction permit application is received by a local jurisdiction, Maryland- National Capital Park and Planning Commission, or Washington Suburban Sanitary Commission after adoption of the MBRC.

(e) Proposed changes. — Within 90 days after the adoption of the MBRC and any subsequent changes to the MBRC:

(1) The Department of Labor, Licensing, and Regulation, the State Board of Heating, Ventilation, Air-Conditioning, and Refrigeration Contractors, the State Board of Plumbing, and the Board of Boiler Rules shall submit proposed changes to their regulations to make the Mechanical Code, the Plumbing Code, the Boiler Safety Code, and the Elevator Code consistent with the MBRC;

(2) The Department of State Police and State Fire Prevention Commission shall submit proposed changes to their regulations to make the State Fire Prevention Code consistent with the MBRC; and

(3) The Department shall submit proposed changes to its regulations to make the Maryland Building Performance Standards, the Safety Glazing Code, the Energy Code, and the Accessibility Code consistent with the MBRC.

(f) Local amendments. —

(1) A local jurisdiction may adopt local amendments to the MBRC that apply to the local jurisdiction.

(2) A municipal corporation whose authority to adopt or amend a building code is, by law, limited by the authority of any county in which it is located, shall not be subject to any amendment to the MBRC adopted by the county unless the municipal corporation also adopts the amendment.

(3) In order to enable the central data base established under § 6-404 of this title to remain current, a local jurisdiction amending the MBRC shall furnish a copy of the amendment to the Department;

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

(ii) In the case of an emergency adoption of a local amendment, within 5 days of its adoption.

(4) Only a local jurisdiction that does not amend the MBRC shall be eligible for any funding appropriated above the appropriation in fiscal year 2000 for:

(i) Circuit rider MBRC inspectors provided under the circuit rider program in the Department;

(ii) Training as provided for under this subtitle for the local jurisdiction's code enforcement officials;

(iii) A smart growth mortgage program to be created by the Department under Title 2, Subtitles 2 and 6 of this article;

(iv) The Neighborhood Conservation Program in the Department of Transportation; and

(v) The Rural Legacy Program established under Title 5, Subtitle 9A of the Natural Resources Article.

(5) Only a local jurisdiction that does not amend the MBRC shall be eligible for a priority under the Department of Transportation's transportation enhancements programs.

§ 6-504. MINIMUM CONTENTS.

(a) Requirements. — The MBRC shall, at a minimum;

- (1) Maintain a level of safety consistent with existing codes, and provide for multiple categories of work with multiple compliance standards;
- (2) Be enforceable by local officials using existing enforcement procedures;
- (3) Apply to repair, renovation, modification, reconstruction, change of occupancy, and addition to an existing building;
- (4) Provide an expedited review process for proposed amendments to the MBRC submitted by a local government or an organization that represents local governments; and
- (5) Contain provisions that provide an opportunity for a person proposing a complex rehabilitation project involving multiple codes, prior to the submission off a construction permit application, to meet with local officials or their designees responsible for permit approval and enforcement in construction related laws and regulations that may be applicable to the rehabilitation project.

(b) Guidelines. — The meeting provided under subsection (a) (5) of this section shall, to the extent possible, include the officials responsible for permit approval and enforcement in the following areas, as may be applicable to the rehabilitation project:

- (1) Building code;
- (2) Mechanical code;
- (3) Plumbing code;
- (4) Electrical code;
- (5) Fire prevention code;
- (6) Boiler safety code;
- (7) Energy code;
- (8) Elevator code; and
- (9) Local historic preservation ordinances.

(c) Purpose of meeting. — The purpose of the meeting provided for under subsection (a) (5) for this section shall be to anticipate and expedite the resolution of problems a complex rehabilitation project may have in complying with the applicable laws and regulations and the MBRC.

§ 6-505. ADVISORY COUNCIL.

(a) Composition. — There shall be a Maryland Building Rehabilitation Code Advisory Council comprised of 27 members as follows:

- (1) The Secretary of Housing and Community Development or designee;
- (2) The Secretary of Labor, Licensing, and Regulation or designee;
- (3) The State Fire Marshal or designee;
- (4) The State Historic Preservation Officer or designee;
- (5) The Director of the Governor's Office for Individuals with Disabilities or designee; and
- (6) 22 members appointed by the Governor, including:
 - (i) A representative of the State Fire Prevention commission;
 - (ii) Four representatives of the building trades who are directly involved or have experience in code setting or enforcement, including plumbers, electricians, heating, ventilation, air-conditioning, and refrigeration contractors, and boiler operators;
 - (iii) Two architects practicing in Maryland whose practice involves a significant portion of rehabilitation projects;
 - (iv) A professional engineer;
 - (v) Two contractors specializing in rehabilitation construction;
 - (vi) Two representatives of county government;
 - (vii) Two representatives of municipal government
 - (viii) Two building code officials serving local government;
 - (ix) A commercial and industrial building owner or developer;
 - (x) A multifamily building owner or developer;
 - (xi) Two local fire officials; and
 - (xii) Two members of the general public.

(b) Chairman; diversity. —

- (1) From among the members of the Council, the Governor shall designate a chairman.
- (2) The composition of the Council should reflect the race, gender, and geographic diversity of the population of the State.

(c) Term. —

- (1) The term of an appointed member is 4 years.

- (2) The terms of appointed members are staggered as required by the terms provided for members of the Council on July 1, 2000.
 - (3) At the end of a term, a member continues to serve until a successor is appointed and qualifies.
 - (4) A member who is appointed after a term has begun serves only for the rest of the term and until a successor is appointed and qualifies.
 - (5) An appointed member may serve no more than two terms.
 - (6) A member shall serve without compensation and shall be reimbursed for expenses in accordance with the Standard State Travel Regulations.
- (d) Duties. — The Council shall:
- (1) Advise the Department on the development, adoption, and revisions to the MBRC;
 - (2) Provide technical advice on the interpretation of the MBRC to property owners, design professionals, contractors, local jurisdiction code officials, and local jurisdiction code appeal boards;
 - (3) To the extent possible, develop the MBRC to seek to avoid increased costs to local jurisdictions arising from implementation of the MBRC; and
 - (4) To the extent provided in the State budget, provide training on the MBRC for code officials and other public and private construction-related professionals.
- (e) Director. — The Council shall have a Director, appointed by the Secretary. The Director shall be a special appointee in the State Personnel Management System.