

## Chapter Comm 70

### HISTORIC BUILDINGS

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**Note:** Chapter ILHR 70 as it existed on January 31, 1998 was renumbered Chapter Comm 70 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1998, No. 505.

**Subchapter I — Purpose, Scope and Application**

**Comm 70.001 Authority.** Chapter Comm 70 constitutes the historic building code and is promulgated under the authority of ss. 101.121 (3) and 101.13 (9), Stats.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.01 Purpose.** The purpose of ch. Comm 70 is to:

- (1) Provide alternative building standards for preserving or restoring buildings or structures designated as historic buildings;
- (2) Facilitate the restoration of historic buildings so as to preserve their original or restored architectural elements and features;
- (3) Encourage energy conservation;
- (4) Permit a cost-effective approach to historic preservation and restoration;
- (5) Provide for the health, safety and welfare of occupants and visitors in qualified historic buildings;
- (6) Provide a process for the department to grant variances in order to permit the proper preservation or restoration of qualified historic buildings; and
- (7) Provide a reasonable means of access to historic buildings for people with physical disabilities.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.02 Scope.** The provisions of ch. Comm 70 are not retroactive.

(1) **QUALIFIED BUILDINGS.** Chapter Comm 70 applies solely to qualified historic buildings:

(a) Listed on, or nominated by the state historical society for listing on, the national register of historic places in Wisconsin;

(b) Included in a district which is listed on, or nominated by the state historical society for listing on, the national register of historic places in Wisconsin, and which has been determined by the state historical society to contribute to the historic significance of the district;

(c) Listed on a certified municipal register of historic property; or

(d) Included in a district which is listed on a certified municipal register of historic property, and which has been determined by the municipality to contribute to the historic significance of the district.

(2) **NON-QUALIFIED BUILDINGS.** Chapter Comm 70 does not apply to the following:

- (a) Nursing homes as defined in s. 50.01 (3), Stats.;
- (b) Hospitals as defined in s. 50.33 (2) (a) and (c), Stats.;
- (c) Approved public or private treatment facilities for alcoholics as defined in s. 51.45 (2) (b) and (c), Stats.;
- (d) Community-based residential facilities as defined in s. 101.127, Stats.;
- (e) Chapter Comm 56 occupancies, except libraries, museums and art galleries;
- (f) New additions to historic buildings;
- (g) New buildings constructed in an historic district;
- (h) Buildings that are reproduced; and
- (i) Other buildings as specified in s. Comm 50.04.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; correction in (2) (b) made under s. 13.93 (2m) (b) 7., Stats., Register, September, 2000, No. 537.

**Comm 70.03 Election of code.** (1) **USE REMAINS UNCHANGED.** (a) *Preserved, renovated, repaired or restored.* If a qualified historic building is preserved, renovated, repaired or

restored to maintain the building in its original condition and the use remains unchanged from the time of original construction, the owner may elect to be subject to one of the following codes:

1. Chapter Comm 70;
2. The code in effect at the time of original construction;
3. Chapters Comm 75 to 79, existing building code, for buildings erected prior to October 9, 1914; or
4. The prevailing code.

(b) *Altered or remodeled.* When a qualified historic building is altered or remodeled and that portion being altered or remodeled affects the structural strength, fire hazard, exits, required natural lighting or replacement of major equipment, the owner may elect to be subject to one of the following:

1. Chapter Comm 70; or
2. The prevailing code.

(2) **USE CHANGES.** When a qualified historic building is changed to a new use or converted from a use as an exempt building, as specified in s. Comm 50.04, to a public building or place of employment, the owner may elect to be subject to one of the following codes:

- (a) Chapter Comm 70; or
- (b) The prevailing code.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; correction in (1) (a) 3. made under s. 13.93 (2m) (b) 7., Stats., Register, June, 1995, No. 474; am. (1) (a) 3., Register, September, 2000, No. 537, eff. 10-1-00.

**Comm 70.04 Impact of other codes on qualified historic buildings.** (1) **CODES AND ORDINANCES.** Except as specified in sub. (2), no owner of a qualified historic building who elects to be subject to ch. Comm 70 may be required to comply with any requirement of the following:

- (a) Any other building code administered by the department, if the building code concerns a matter addressed by ch. Comm 70;
- (b) Any county or municipal building code, if the county or municipal building code concerns a matter addressed by ch. Comm 70; and
- (c) Any other local ordinance or regulation, if the ordinance or regulation concerns a matter addressed by ch. Comm 70.

(2) **LIMITATIONS.** This chapter shall not be construed to affect local requirements relating to land use, zoning, fire districts or other similar requirements.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.05 Verification of a qualified historic building.** If an owner elects to be subject to ch. Comm 70, the owner shall prove that the building is a qualified historic building [by] submitting a verification of historic building status form that is signed by the state historical preservation officer or an authorized municipal officer, verifying that the building is a qualified historic building.

**Note:** See Appendix for an example of the verification of historic status form.

**Note:** See Appendix for information on the certification of historic preservation ordinances.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.06 Application of historic building code.** (1) **QUALIFIED HISTORIC BUILDINGS.** Except as specified in sub. (2), if an owner elects to be subject to ch. Comm 70, ch. Comm 70 shall be applied in its entirety.

(2) **TOTALLY PRESERVED BUILDINGS USED AS HISTORICAL EXHIBITS.** Any qualified historic building that is totally preserved and used solely as an historical exhibit shall comply with the requirements specified in subch. XI.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

## Subchapter II — Administration and Enforcement

**Comm 70.07 Plan examination.** (1) **PLAN SUBMITTAL.** Plans and specifications for all qualified historic buildings subject

to ch. Comm 70 shall be submitted in accordance with the following:

(a) *Altered or remodeled.* If a qualified historic building is remodeled or altered and that portion being remodeled or altered affects the structural strength, fire hazard, exits of the building, required natural lighting, or replacement of major equipment, plans and specifications shall be submitted to the department or its authorized representative as specified in ss. Comm 50.21 and 50.22 for examination and be approved before commencing work.

(b) *Change in use.* If a qualified historic building is changed to a new use, or converted from a use as a nonpublic building to a public building, plans and specifications showing compliance with this chapter shall be submitted to the department or its authorized representative as specified in ss. Comm 50.21 and 50.22 for examination and be approved before commencing work.

(2) **BUILDINGS EXEMPT FROM DEPARTMENT PLAN SUBMITTAL.** (a) *Preserved, renovated, repaired, or restored buildings.* Plans and specifications are not required to be submitted to the department for qualified historic buildings that are preserved, renovated, repaired or restored and the use remains unchanged from the time of original construction.

(b) *Totally preserved buildings used as historical exhibits.* If a qualified historic building complies with subch. XI for a totally preserved building used as an historical exhibit, plans and specifications are not required to be submitted to the department or its authorized representative for examination and approval.

(3) **PLANS, SPECIFICATIONS AND DATA.** If plans and specifications are required to be submitted, at least 4 complete sets of plans, which are clear, legible and permanent copies, and one copy of specifications and data shall be submitted for examination.

(a) *Preparation.* Plans and specifications shall be prepared as specified in ss. Comm 50.07 and 50.08. All plans shall contain the name of the owner and the address of the building. The signature and stamp or seal of the architect, engineer or designer who prepared the plans shall appear on the title sheet, in accordance with s. A-E 2.02, Wis. Adm. Code, registration seals.

(b) *Building plans.* The building plans shall provide sufficient information to evaluate whether the building conforms to the requirements of this chapter and shall include the following.

1. **Plot plan.** The location of the building with respect to all property lines, adjoining streets, alleys and any other buildings on the same lot or property shall be indicated on the plot plan.

2. **Floor plans.** Floor plans shall be provided for each floor. The size and location of all rooms, doors, windows, firewalls, toilet facilities, structural features, exit passageways, exit lights, fire alarms, standpipes, stairs and other pertinent information shall be indicated. Schematic exit plans shall be provided indicating normal paths of egress.

3. **Elevations.** The elevations shall contain information on the exterior appearance of the building and indicate the location and size of doors, windows, roof shape, chimneys, exterior grade, footings and foundation walls, and include information about the exterior materials.

4. **Sections and details.** Sections and details shall include information to clarify the building design.

(c) *Footing and foundation.* If footing and foundation plans are required to be submitted, at least 4 complete sets of footing and foundation plans including plot plans, schematic floor plans showing exits, elevations and itemized structural loads shall be submitted to the department.

(d) *Heating, ventilating and air conditioning plans.* Heating, ventilating and air conditioning plans shall indicate the layout of the system, including location of equipment and size of all piping, duct work, dampers, fire dampers, chimneys, vents and controls. The quantity of outside air introduced to each zone, and the quantity of supply air and exhaust air for each room shall be listed on the plans. The type of equipment and capacity, including the input

and output, shall be indicated on the plans or equipment schedules, unless indicated in the specifications.

(e) *Specifications.* The specifications shall be properly identified with the drawings and describe the materials and the workmanship.

(4) **STRUCTURAL REPORT.** When plans and specifications are required to be submitted to the department or its authorized representatives a structural report as specified in subch. VI which identifies the structural condition of the building shall be submitted with the plans.

(5) **APPROVAL APPLICATION FORMS.** (a) *Plan approval application.* A plan approval application form SB-118 shall be submitted along with the plans and specifications as required in par. (3).

(b) *Verification form.* A verification of historic status form shall be submitted and signed by the state historic preservation officer or an authorized municipal official verifying that the building is a qualified historic building.

(c) *Building evaluation form.* When the building evaluation method is used, a completed building evaluation form as specified in s. Comm 70.23 shall be submitted.

**Note:** Copies of the department plan approval application form SB-118 are available from the Safety and Buildings Division at P.O. Box 7162, Madison, WI 53701-7162, or at telephone 608/266-1818 and 608/264-8777 (TTY). Some of the department forms are also available at the Safety and Buildings' web site at [www.commerce.state.wi.us](http://www.commerce.state.wi.us).

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; am. (1) (a) and (b), Register, September, 2000, No. 537, eff. 10-1-00; correction in (3) (b) made under s. 13.93 (2m) (b) 7., Stats., Register, June, 2001, No. 546.

**Comm 70.08 Approvals.** (1) **DEPARTMENT APPROVAL.** The department or its authorized representative shall review and make a determination on an application for plan review within 15 business days of receipt of the application and all forms, fees, plans and documents required to complete the review.

(a) *Plan approval.* 1. Conditional approval. If, upon examination, the department or its authorized representative determines that the plans and the application for approval substantially conform to the provisions of ch. Comm 70, a conditional approval, in writing, shall be granted. All non-code-complying conditions stated in the conditional approval shall be corrected before or during construction. A conditional approval issued by the department shall not be construed as an assumption of any responsibility for the design or construction of the building.

2. Denial of approval. If the department or its authorized representative determines that the plans or the application do not substantially conform to ch. Comm 70, the application for conditional approval shall be denied, in writing.

(b) *Footing and foundation approval.* Upon submission of 4 sets of footing and foundation plans, a plans approval application form, structural foundation calculations and a fee, the department or its authorized representative, may conditionally approve the footing and foundation plans to permit construction of the footings and foundations for a relocated qualified historic building. The department or its authorized representative shall review and make a determination on an application for footing and foundation approval within 15 business days of receipt of the application and all forms, fees, plans and documents required to complete the review.

(c) *Permission to start construction.* Upon submission of the plans approval application form, 4 complete sets of building plans and one copy of specifications, a written request by the owner to start construction, and a fee, the department or its authorized representative may issue a permission to start construction form for the footings and foundations for a relocated qualified historic building. The department shall review and make a determination on an application for permission to start construction within 3 business days of receipt of the application and all forms, fees, plans and documents required to complete the review.

**Note:** Copies of the department permit to start construction form SB-198 are available from the Safety and Buildings Division at P.O. Box 7162, Madison, WI 53701-7162, or at telephone 608/266-1818 and 608/264-8777 (TTY). Some of the

department forms are also available at the Safety and Buildings' web site at [www.commerce.state.wi.us](http://www.commerce.state.wi.us).

**Note:** An approved permission to start construction does not constitute a building permit. Building permits may have to be obtained from the local authorities having jurisdiction in accordance with local regulation and ordinances.

**Note:** Section 145.195, Stats., prohibits issuance of building permits by counties, cities, towns or villages for structures requiring connection to a private domestic sewerage treatment and disposal system unless the system satisfies all applicable requirements and all necessary permits for such system have been obtained.

(2) **MUNICIPAL OR FIRST CLASS CITY ENFORCEMENT.** Any certified municipality or first class city complying with s. Comm 50.21 may administer and enforce ch. Comm 70.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.09 Evidence of plan approval.** The architect, engineer, designer, builder, or owner shall keep at the building site one set of plans bearing the stamp of conditional approval and a copy of the specifications. The plans shall be open to inspection by the department or its authorized representative.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.10 Revocation of approval.** The department may revoke any approval issued under the provisions of ch. Comm 70 for any false statements or misrepresentation of facts on which the approval was based.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.11 Expiration of plan approval.** Plan approval by the department or its authorized representative shall expire one year after the date indicated on the approved plans if construction has not commenced within that year or if there has been a break in significant construction activity of more than one year.

**Note:** According to s. 66.05 (1) (a), Stats., the local governmental body or building inspector may order the razing of buildings or structures, or portions thereof, where there has been a cessation of normal construction for more than 2 years.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.12 Inspections.** Inspections shall be conducted by the department or its authorized representative to ascertain whether the construction or installations conform to the conditionally approved plans, the conditional approval letter, and provisions of ch. Comm 70.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.13 Fees.** (1) **DEPARTMENT FEES.** Fees for plan examination and inspection as specified in ch. Comm 2 and fees for petitions for variances, as specified in s. Comm 2.52 shall be submitted to the department with the appropriate completed application form and the plans and specifications.

(2) **MUNICIPAL FEES.** Municipalities providing plan examination and building inspection services may establish, by ordinance, fees to cover expenses for plan examination and inspection. Fees shall be submitted to the municipality in accordance with the municipal regulations and ordinances.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; corrections in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, June, 1995, No. 474.

**Comm 70.14 Petition for variance.** The department shall consider and may grant a variance to a provision of this chapter in accordance with ch. Comm 3. The petition for variance shall include a position statement from the fire department having jurisdiction.

**Note:** Chapter Comm 3 requires the submittal of a petition for variance form (SBD-9890) and a fee, and that an equivalency is established in the petition for variance that meets the intent of the rule being petitioned. Chapter Comm 3 also requires the department to process regular petitions within 30 business days and priority petitions within 10 business days.

**Note:** Form SBD-9890 is available from the Safety and Buildings Division at P.O. Box 7162, Madison, WI 53701-7162, or at telephone 608/266-1818 and 608/264-8777 (TTY). Some of the department forms are also available at the Safety and Buildings' web site at [www.commerce.state.wi.us](http://www.commerce.state.wi.us).

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; r. and recr. Register, September, 2000, No. 537, eff. 10-1-00.

**Comm 70.15 Penalties.** Penalties for violations of ch. Comm 70 shall be assessed in accordance with s. 101.02, Stats.

**Note:** Section 101.02 (13) (a), Stats., indicates penalties will be assessed against any employer, employee, owner or other person who fails or refuses to perform any duty lawfully enjoined, within the time prescribed by the department, for which no penalty has been specifically provided, or who fails, neglects or refuses to comply with any lawful order made by the department, or any judgment or decree made by any court in connection with ss. 101.01 to 101.25. For each such violation, failure or refusal, such employee, owner or other person must forfeit and pay into the state treasury a sum not less than \$10 nor more than \$100 for each violation.

**Note:** Section 101.02 (12), Stats., indicates that every day during which any person, persons, corporation or any officer, agent or employee thereof, fails to observe and comply with an order of the department constitutes a separate and distinct violation of such order.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

### Subchapter III — Definitions

**Comm 70.17 Definitions.** In this chapter:

(1) “Altered” or “alterations” means to modify a qualified historic building which affects the structural strength, fire hazard, access for the disabled, energy conservation, heating and ventilating, or electrical systems yet retains some original or restored architectural elements or features.

(2) “Authorized representative” means any certified municipality or county as specified in s. Comm 50.21, and any appointed agent as specified in s. Comm 50.22.

(3) “Building” means any structure used or intended for supporting or sheltering any use or occupancy.

(4) “Certified municipal register of historic property” means a register of historic property which is part of an historic preservation ordinance promulgated by a city, village, town or county if the ordinance is certified by the state historical society under s. 44.44, Stats.

(5) “Change in use” means the process of adapting a building to accomplish a use other than that for which it was originally designed, but does not mean a change of use within an occupancy chapter.

**Note:** For example a factory (ch. Comm 54) being converted to multifamily housing (ch. Comm 66) or a one- and 2-family dwelling (exempt from department code regulations) converted to a gift shop (ch. Comm 54).

(6) “Department” means the department of commerce.

(7) “Historic fabric” means the original materials, and portions of the building still intact when exposed or as they appeared and were used in the past.

(8) “Historic aspect” means the particular features of the historic site, building or structure that gives it its historic significance.

(9) “National register of historic places in Wisconsin” means the places in Wisconsin that are listed on the national register of historic places maintained by the U.S. department of the interior.

(10) “Occupancy” means the purpose for which a building or structure is used or intended to be used as regulated in the prevailing code.

(11) “Occupancy chapter” means a classification of similar uses designated under a chapter heading in the prevailing code, including ch. Comm 54, factories, office and mercantile buildings, ch. Comm 55, theaters and assembly halls, ch. Comm 56, schools and other places of instruction, ch. Comm 57, residential occupancies, ch. Comm 59, hazardous occupancies, ch. Comm 60, child day care facilities, and ch. Comm 62, specialty occupancies.

(12) “Original material” means those features or elements of a qualified historic building or structure that have some historic significance.

(13) “Preserved” means maintaining a qualified historic building in its present condition or as originally constructed.

(14) “Prevailing code” means the most current edition of chs. Comm 50-64 building and heating, ventilating and air conditioning code.

(15) “Qualified historic building” means a building which is:

(a) Listed on, or nominated by the state historical society for listing on, the national register of historic places in Wisconsin;

(b) Included in a district which is listed on, or has been nominated by the state historical society for listing on, the national register of historic places in Wisconsin, and has been determined by the state historical society to contribute to the historic significance of the district;

(c) Listed on a certified municipal register of historic property; or

(d) Included in a district which is listed on a certified municipal register of historic property, and has been determined by the municipality to contribute to the historic significance of the district.

(16) “Reconstituted” means a qualified historic building that is reassembled piece-by-piece on the same site or new site.

(17) “Relocated” means any qualified historic building or a portion of a qualified historic building that will be moved to a new location.

(18) “Remodeled” means to substantially change the structure of a qualified historic building, including load-bearing and non-loading walls or partitions or both; change the location of exits; or change the toilet facilities; but shall not include maintenance, redecoration, reroofing or alteration of mechanical or electrical systems.

(19) “Renovated” means to make sound again any structure by cleanup and replacement of deteriorated detail or structure.

(20) “Repaired” means to replace, cleanup, rebuild or renew any portion of a qualified historic building for the purpose of its maintenance.

(21) “Reproduced” means the process of rebuilding an entirely non-existent structure to its original appearance through archival and archeological investigation.

(22) “Restored” means the process of accurately recovering, by the removal of later work or the replacement of missing earlier work, as it appeared at a particular period of time.

(23) “Structural deterioration” means a decline in the original strength of a structural element caused by fire, water, wind, snow, insects, age or excessive loading, which result in cracks, distortions, deflections, misalignments, abrasion, erosion or corrosion to the structure.

(24) “Test-of-time” means a structure that has over a period of time withstood the combined service loads and environmental stresses imposed upon it and shows no sign of serious deterioration.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; correction in (6) made under s. 13.93 (2m) (b) 6., Stats., Register, January, 1998, No. 505; am. (2), Register, September, 2000, No. 537, eff. 10-1-00; correction in (4) made under s. 13.93 (2m) (b) 7., Stats., Register, September, 2000, No. 537.

### Subchapter IV — Building Evaluation Method

**Comm 70.20 Scope.** This subchapter provides an alternative method for determining code compliance for a qualified historic building being remodeled, altered or changed in use.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.21 Building evaluation method.** The building evaluation method established in this subchapter provides a method for evaluating the degree of life safety of a qualified historic building by comparing 17 building safety parameters with the requirements of the prevailing code.

(1) **LIFE SAFETY.** The degree of life safety is measured in terms of:

(a) *Fire safety.* The category of fire safety includes the building safety parameters affecting the structural fire resistance, detection, alarm and extinguishing features of a qualified historic building.

(b) *Means of egress.* The category of means of egress includes those building safety parameters of a qualified historic building affecting safe evacuation.

(c) *General safety.* The category of general safety includes all the safety building parameters under fire safety and means of egress.

(2) SEVENTEEN BUILDING PARAMETERS. A qualified historic building shall be evaluated using the 17 building safety parameters indicated in Table 70.21.

Table 70.21

1. Number of Stories	9. Smoke detection
2. Building Area	10. Fire Alarms
3. Building Setback	11. Smoke Control
4. Attic Compartmentalization	12. Exit Capacity
5. Firestopping	13. Dead ends
6. Mixed Occupancies	14. Maximum Travel
7. Vertical Openings	15. Emergency Lighting
8. HVAC Systems	16. Elevator Control
	17. Sprinklers

(3) DETERMINING NUMERICAL VALUE. Each building safety parameter shall be evaluated using the criteria specified under that particular building safety parameter [Comm 70.22 (1) – (17)] in order to determine the degree of life safety provided by the qualified historic building and the numerical value assigned for the degree of life safety.

(a) Numerical values may not be interpolated and shall be listed according to value and positive (+) or negative (–) sign.

(b) Numerical values may not be assigned to those spaces on the summary sheet identified with NA.

(c) Where a building parameter does not apply, a value of zero (0) shall be assigned.

(4) BUILDING EVALUATION FORM. After the numerical value has been determined for each building safety parameter the same numerical value shall be entered on the Building Evaluation form in s. Comm 70.23 under each of the life safety categories titled, “Fire Safety”, “Means of Egress” and “General Safety” for each building parameter.

(5) TOTAL BUILDING SAFETY SCORE. After each building parameter of the building is evaluated, the numerical values shall be algebraically summed or totaled according to value and sign for each column on the evaluation form in s. Comm 70.23 for fire safety, means of egress and general safety to determine a total building safety score.

Note: (+5) + (–5) = 0; (+5) + (–5) + (+5) = +5.

(a) If the total building safety score under each column is equal to or greater than zero, the qualified historic building is considered to be a code complying building and may be used for the proposed use.

(b) If the total building safety score of any one of the columns related to fire safety, means of egress or general safety is less than zero, additional safety measures shall be provided to bring the total numerical score of that column to a value which is equal to or greater than zero.

(6) FILING OF BUILDING EVALUATION FORM. A copy of the building evaluation form shall be submitted with the plans and specifications.

(a) *Single use.* One building evaluation form shall be completed for a qualified historic building containing a single use or a similar use within the same occupancy classification or where an occupancy separation is not provided.

(b) *Mixed uses.* One building evaluation form for each use shall be completed for a qualified historic building containing uses not within the same occupancy classifications, separated by an occupancy separation.

History: Cr. Register, September, 1986, No. 369, eff. 10–1–86.

**Comm 70.22 Building evaluation procedures.** When the building evaluation method is used, the process specified in this section shall be used in its entirety. The building evaluation method analyzes a qualified historic building in accordance with the building safety parameters specified in this section and compares them against the prevailing code to determine a numerical value of safety provided in the qualified historic building.

(1) NUMBER OF STORIES. (a) 1. The class of construction of the qualified historic building shall be determined by comparing the actual building elements to those specified in s. Comm 51.03. The class of construction shall be based on that which most closely represents one of the 8 classes of construction as described in s. Comm 51.03.

2. Buildings with different classes of construction shall be separated with a class of construction separation specified in the prevailing code unless the lowest class of construction is used as the basis for the evaluation.

(b) The allowable number of stories for the class of construction of the qualified historic building shall be determined in accordance with the prevailing code: ss. Comm 51.02, 51.03 including Table 51.03–A, and the class of construction or height requirements or both as specified in the applicable occupancy chapters.

(c) A single numerical value from Table 70.22–1 shall be determined and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, number of stories, for fire safety, means of egress and general safety.

TABLE 70.22–2

Safety Parameter/Number of Stories	Numerical Value (per story)
Each story above the maximum number of stories allowed	–5
Complies with prevailing code	0
Each story below the maximum number of stories	+5 (maximum value, +10)

(2) BUILDING AREA. (a) The allowable building area of a qualified historic building shall be determined using the allowable area requirements for the class of construction and use as specified in the prevailing code: ss. Comm 51.03 including Table 51.03–A, and the allowable area requirements specified in the applicable occupancy chapter.

(b) If the qualified historic building has more stories than permitted by the prevailing code, the maximum number of stories

allowed for that class of construction in the prevailing code shall be used to determine the maximum allowable area requirements for the building. (See example for determining the area.)

(c) When the entire building is protected by an approved automatic sprinkler system complying with the prevailing code, the allowable building area may be increased as specified in the prevailing code.

(d) Where an assembly hall is located in a building with other uses, the building shall comply with the class of construction requirements as specified in s. Comm 55.02 which are based on the maximum capacities of the assembly hall.

(e) A single numerical value shall be determined from Table 70.22-2 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, building area, for fire safety, means of egress and general safety.

**EXAMPLE FOR DETERMINING AREA**

Existing Building Occupancy: Office building, ch. Comm

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Class of Construction: Type 5B, exterior masonry, unprotected

Number of Stories: 6 stories

Street Frontage: 3 streets

Floor Area: 12,000 sq. ft. per floor

Prevailing code requirements:

Type 5B, exterior masonry, unprotected

maximum number of stories: 3 stories

maximum floor area: 16,000 sq. ft. per floor

12,000

16,000 = 67% of allowable

TABLE 70.22-2

Building Area	Numerical Value
More than 150% of the allowed area	-5
131% - 150% of allowed	-4
121% - 130% of allowed	-3
111% - 120% of allowed	-2
90% to 110% of allowed area, or where code does not have area limitations	0
80% - 89% of allowed	+2
70% - 79% of allowed	+3
50% - 69% of allowed	+4
Less than 50% of the area allowed	+5

**(3) BUILDING SETBACKS.** (a) The building setback shall be compared with those specified in the class of construction requirements in the prevailing code: s. Comm 51.03 including Tables 51.03-A and 51.03-B and the class of construction requirements in the applicable occupancy chapter.

(b) A single numerical value shall be determined from Table 70.22-3 using the worst case condition and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, building setback, for fire safety and general safety.

TABLE 70.22-3

Building Setbacks	Numerical Value
Closer than allowed under the prevailing code	-2
Complies with prevailing code	0
Greater than the prevailing code	+2

**(4) ATTIC COMPARTMENTALIZATION.** (a) The attic area of a qualified historic building shall be evaluated against the compartmentalization standards specified in s. Comm 51.02 (19) of the prevailing code.

fire safety and general safety.

(b) A single numerical value shall be determined from Table 70.22-4 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, attic compartmentalization, for

(c) If the total attic area is less than 3,200 square feet, the numerical value is 0.

(d) All existing or proposed building features used or considered under this subsection shall be shown or indicated on the plans submitted for review. It will be assumed by the department that features not shown or indicated do not exist and will not be provided, and no credit under the subsection may be taken.

TABLE 70.22-4

Attic Compartmentalization	Numerical Value
Attic compartmentalized into areas greater than 3200 square feet	-3
Complies with prevailing code (3200 square feet)	0
Attic compartmentalized into areas less than 2000 square feet	+3

**(5) FIRESTOPPING.** (a) The firestopping characteristics of a qualified historic building shall be evaluated in accordance with the firestopping requirements specified in s. Comm 53.63 of the prevailing code.

(c) A single numerical value shall be determined from Table 70.22-5 for the entire building based on the worst case condition and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, firestopping, for fire safety and general safety.

(b) If the existing wall material is removed and the wall cavity is exposed, firestopping shall be provided in accordance with s. Comm 53.63.

TABLE 70.22-5

Firestopping	Numerical Value
No fire stopping or No verification of firestopping	-5
Firestopping provided at basement and attic levels and wherever accessible	-3
Complies with prevailing code (or verified)	0

**(6) MIXED OCCUPANCIES.** (a) Occupancy separations in a qualified historic building shall be evaluated as required under the occupancy chapters of the prevailing code: s. Comm 51.08 and the occupancy separation requirements in the applicable occupancy chapters.

(b) A single numerical value shall be determined from Table 70.22-6 based on the worst case condition and the numerical value and its sign, either positive or negative, shall be entered on [the] evaluation form in s. Comm 70.23 under the safety parameter, mixed occupancies, for fire safety and general safety.

TABLE 70.22-6

Occupancy Separations	Numerical Value
No separation provided, but required	-5
Provided, but 2-hours less than required	-4
Provided, but 1-hour less than required	-2
Complies with prevailing code for fire resistive ratings or no separation is required <sup>1</sup>	0
Provided and 1 or more hours greater than required	+2

<sup>1</sup> Where a 3 hour is required and a 4 hour is provided, the value shall be 0.

**(7) VERTICAL OPENINGS.** (a) The fire-resistive rating of enclosures of stairway exits, hoistways, escalator openings and other shafts within a qualified historic building or openings between 2 or more floors shall be evaluated in accordance with the prevailing code: s. Comm 51.02 (11) and the enclosure requirements from the applicable occupancy requirements.

(c) Where assembly halls are located in buildings with other uses, the required exits shall comply with the prevailing code.

(b) Atriums more than 3 levels shall not be considered in the evaluation of vertical openings, but shall comply with s. Comm 70.26.

(d) A single numerical value shall be determined in accordance with Table 70.22-7 based on the worst case condition and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, vertical openings, for fire safety, means of egress and general safety.

TABLE 70.22-7

Vertical Openings	Numerical Value (per shaft or opening)
No enclosure	-3
Enclosure with no rating	-2
Enclosure provided but 1-hour below the required protection level	-1
Complies with prevailing code	0
1-hour required, but 2-hour provided	+1

**(8) HEATING, VENTILATING, AND AIR CONDITIONING.** (a) The number of floors in a qualified historic building served by an individual heating, ventilating, and air conditioning (HVAC) system shall be evaluated in accordance with the prevailing code.

70.22-8 and the numerical value and its sign, either positive or negative, shall be entered on [the] evaluation form in s. Comm 70.23 under the safety parameter, HVAC, for fire safety, means of egress and general safety.

(b) A single numerical value shall be determined from Table

TABLE 70.22-8

HVAC Systems	Numerical Value
Greater than 5-floor levels served by undampened duct system: combustibles in air plenums, or corridors used as air plenums.	-5
3 to 5-floor levels served by undampened duct system	-2
2-floor levels served by undampened duct system	-1
Complies with prevailing code or provided with fire dampers	0
Multi-level buildings having 1-floor level HVAC system or central system with no ducts serving other floor levels	+5

**(9) SMOKE DETECTION.** (a) A qualified historic building shall be evaluated for the building's ability to detect smoke from a fire, based on the location and operation of smoke detectors that are in addition to the smoke detectors required by the applicable occupancy chapters of the prevailing code.

(b) A single numerical value shall be determined from Table 70.22-9 and the numerical value and its sign, either positive or negative, shall be entered on [the] evaluation form in s. Comm 70.23 under the safety parameter, smoke detection, for fire safety, means of egress and general safety.

TABLE 70.22-9

Smoke Detection	Numerical Value
Complies with prevailing code	0
Elevator lobby only and not required by chs. Comm 50-64	+1
HVAC return only and not required by chs. Comm 50-64	+2
HVAC return and elevator lobby and not required by chs. Comm 50-64	+3
All corridors, in addition to those required by the code, including elevator lobbies <sup>1</sup>	+4
Total space with interconnection of smoke detectors and building fire alarm system and not required by chs. Comm 50-64	+5

<sup>1</sup>If required detectors meet the requirements for corridor protection, enter 0.

**(10) FIRE ALARMS.** (a) The fire alarm system shall be evaluated in accordance with the prevailing code: s. Comm 51.24 and the fire alarm requirements in the applicable occupancy chapter.

(b) A single numerical value shall be determined from Table

70.22-10 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, fire alarms, for fire safety, means of egress and general safety.

TABLE 70.22-10

Fire Alarms	Numerical Value
Manual fire alarm system required, but not provided	-5
Manual fire alarm system required and provided, but does not comply with prevailing code	-2
Complies with the prevailing code	0
Manual fire alarm system provided but not required <sup>1</sup>	+1
Manual fire alarm and voice alarm or manual fire alarm with public address system provided, but not required <sup>2</sup>	+3
Central control station <sup>3,4</sup>	+4
Central control station and interconnected to a remote control station which is permanently monitored <sup>3,4</sup>	+5

<sup>1</sup>If a numerical value of (+5) is taken under (9) smoke detection, the numerical value for this section is 0.

<sup>2</sup>Voice alarm and public address system shall be activated from a location which is occupied by an employee during all periods of building occupancy.

<sup>3</sup>The central control station must comply with s. Comm 52.01 (2) (f).

<sup>4</sup>Fire department may require systems to be interconnected with the fire department.

**(11) SMOKE CONTROL.** (a) The ability to control the movement of smoke from a fire by natural or mechanical venting, exhaust or pressurization systems in a qualified historic building shall be evaluated in accordance with Table 70.22-11 for the entire building based on the worst case condition.

(b) A single numerical value shall be determined from Table

70.22-11 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, smoke control, for fire safety, means of egress and general safety.

(c) If a building is 2 stories or less in height, the numerical value is 0.

TABLE 70.22-11

Smoke Control	Numerical Value
Operable windows, that are operable without special keys or tools, are provided throughout the entire building, but not required	+2
Automatic smoke vents provided throughout entire building, but not required	+3
One smoke proof stair enclosure provided and building has operable windows, but neither required	+5
Pressurized stairs (all stairs) provided, but not required	+7
Engineered smoke control and removal system provided that covers the entire building, but not required	+10

**(12) EXIT CAPACITY.** (a) The means of egress by number of exits, location of exits, occupant load and capacity of exits in a qualified historic building shall be evaluated in accordance with the prevailing code: ss. Comm 51.15, 51.151, and the exiting requirements specified in the applicable occupancy chapters.

(b) The minimum number of exits shall be provided as specified in the prevailing code for the applicable occupancy chapter.

(c) A single numerical value shall be determined from Table 70.22-12 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, exit capacity, for means of egress and general safety.

(d) If exiting differs on various floor levels, the worst case floor shall be evaluated.



TABLE 70.22-12

Exit Capacity	Number Value (per exit)
Complies with prevailing code	0
Horizontal exits are provided in addition to the required exits <sup>1</sup>	+2
Exits to grade or enclosed stairs exceed the minimum number of exits <sup>2</sup>	+3
Eliminate a fire escape exit and provide a code complying enclosed stairway exit serving 3 or more levels	+5

<sup>1</sup>No more than one-half the exits may be horizontal exits.

<sup>2</sup>Exits shall be at least 20 feet apart.

**(13) DEAD ENDS.** (a) The length of the travel path in which the building occupants are confined to a single direction of egress shall be evaluated in accordance with Table 70.22-13.

(b) Dead ends greater than 30 ft. are not permitted.

(c) The creation of new dead end corridors is prohibited.

(d) A single numerical value shall be determined from Table 70.22-13 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, dead ends, for means of egress and general safety.

TABLE 70.22-13

Dead Ends	Numerical Value (per dead end)
Dead ends more than 20 feet	-5
Complies with prevailing code or dead ends less than 20 feet	0

**(14) MAXIMUM TRAVEL DISTANCE TO AN EXIT.** (a) The length of travel to a required exit in a qualified historic building shall be evaluated in accordance with the prevailing code: ss. Comm 54.02 and 57.03 depending on the occupancy chapter.

(b) When the entire building is protected by an approved automatic sprinkler system, complying with the prevailing code, the travel distances may be increased as specified in the prevailing code.

(c) Travel distances that exceed 25% above the required limitations are not permitted.

(d) A single numerical value shall be determined from Table 70.22-14 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, maximum travel distance, for means of egress and general safety.

TABLE 70.22-14

Maximum Travel Distance	Numerical Value
111% - 125% of limit allowed	-5
90% - 110% of prevailing code limit	0
50% - 89% of limit allowed <sup>1</sup>	+3
Less than 50% of limit allowed <sup>1</sup>	+5

<sup>1</sup>For residential occupancies no credit may be taken for reduced exit distance.

**(15) EMERGENCY POWER.** (a) The availability of emergency power for emergency lighting in a qualified historic building shall be evaluated in accordance with the prevailing code and ch. Comm 16.

(b) A single numerical value shall be determined from Table

70.22-15 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, emergency power, for means of egress and general safety.

TABLE 70.22-15

Emergency Power	Numerical Value
Emergency power required, but not provided	-5
Complies with prevailing code	0
Emergency power provided, but not required <sup>1</sup>	+2

<sup>1</sup>Does not apply to buildings 2 stories or less in height.

**(16) ELEVATOR CONTROL.** (a) The elevator equipment and controls that can be used by the fire department in a qualified historic building to rescue building occupants from upper floors during a fire when installed shall be evaluated in accordance with ch. Comm 18.

(b) A single numerical value shall be determined from Table 70.22-16 and the numerical value and its sign, either positive or negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, elevator control, for fire safety, means of egress and general safety.

TABLE 70.22-16

Elevator Control	Numerical Value
No elevators in buildings 3 stories or more in height	-3
No elevator in buildings 2 stories or less in height	0
Elevator with fire department control in buildings 3 stories or less in height	+1
Elevator with automatic recall in buildings 3 stories or more in height	+4
Elevator with fire department control and automatic recall in buildings 3 stories or more in height	+5

**(17) SPRINKLERS.** (a) The sprinkler system provided in a qualified historic building shall be evaluated in accordance with the prevailing code: ss. Comm 52.01, 52.011 to 52.013, and the applicable occupancy chapters.

(b) A single numerical value shall be determined from Table 70.22-17 and the numerical value and its sign, either positive or

negative, shall be entered on the evaluation form in s. Comm 70.23 under the safety parameter, sprinklers, for fire safety, means of egress and general safety.

(c) If the building area evaluation was based on sprinkler protection as allowed by sub. (2) (c), the numerical value under this section is 0.

TABLE 70.22-17

Sprinklers	Numerical Value
System required but not provided <sup>1</sup>	-5
Existing sprinkler system is required but does not meet prevailing code <sup>2</sup>	-1
Sprinkler system is not required and not provided	0
Sprinkler system required and provided in accordance with the prevailing code	0
Existing sprinkler system is not required and does not meet prevailing code <sup>2</sup>	+1
Sprinklers provided in unseparated hazardous areas and exit passageways, but not required	+3
Partial sprinkler system is provided throughout at least 75% of the building, but not required	+5
If sprinkler system is required, and regular sprinkler heads are replaced with quick response heads	+5
Complete sprinkler system provided throughout entire building, but not required	+7
Complete sprinkler system complying with NFPA 13 for quick response heads is provided throughout the entire building, but not required <sup>3</sup>	+10

<sup>1</sup>If -5 was entered under sub. (2), numerical value is 0.

<sup>2</sup>Does not apply to partial systems.

<sup>3</sup>If -5 was entered under sub. (2), numerical value is +5.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86; correction in (16) (a) made under s. 13.93 (2m) (b) 7., Stats., Register, June, 1995, No. 474; correction in (17) (a) made under s. 13.93 (2m) (b) 7., Stats., Register, September, 2000, No. 537.

**Comm 70.23 Building evaluation form.** The numerical values determined in s. Comm 70.22 shall be entered in Table 70.23.

TABLE 70.23

Safety Parameters	Fire Safety	Means of Egress	General Safety	Comments
1. Number of Stories				
2. Building Area				
3. Building Setback		NA		
4. Attic Compartmentalization		NA		
5. Firestopping		NA		
6. Mixed Occupancies		NA		
7. Vertical Openings				
8. HVAC Systems				
9. Smoke Detection				
10. Fire Alarms				
11. Smoke Control	NA			
12. Exit Capacity	NA			
13. Dead Ends	NA			
14. Maximum Travel Distance	NA			
15. Emergency Power	NA			
16. Elevator Control				
17. Sprinklers				
<b>TOTAL SAFETY SCORE</b>				

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

### Subchapter V — Miscellaneous Building Requirements

**Comm 70.25 Purpose.** The purpose of this subchapter is to provide alternative building standards for qualified historic buildings.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.26 Atriums.** Where the use of a qualified historic building is changed to a new use and an atrium exists, the atrium may remain subject to the following:

(1) **THREE LEVELS OR LESS.** Except as provided in sub. (3), atriums in a qualified historic building serving 3 levels or less may remain as constructed; however, the atrium will be considered an unenclosed shaft under s. Comm 70.22 (7).

(2) **MORE THAN THREE LEVELS.** Atriums in a qualified historic buildings serving more than 3 levels, but not exceeding 8 levels, may be permitted subject to the requirements in the prevailing code or the alternate atrium standards specified in sub. (3).

(3) **ALTERNATE ATRIUM STANDARDS.** (a) *Separations.* The atrium opening shall be separated at each floor by non-rated partitions or glazing.

(b) *Doors.* Doors shall be provided in the openings separating the atrium from the floor.

1. Existing doors may be non-rated.

2. New doors shall be of a solid wood core type or particle-board core type door and may have glazing. Door frames may be of wood.

3. All doors shall be automatic self-closing in accordance with the prevailing code. The hold-open device shall be activated by a product of combustion detector which responds to products of combustion other than heat.

(c) *Smoke detection.* A smoke detection system, interconnected to a building fire alarm system, shall be provided on each floor at the atrium perimeter.

(d) *Smoke removal.* A mechanical smoke removal system shall be provided at the top of the atrium to exhaust smoke to the outside.

1. The smoke removal system shall be activated by activation of 2 or more of the detectors required by par. (c).

2. The smoke removal system shall exhaust 6 air changes per hour based on the volume of the atrium and spaces open to the atrium but not less than 40,000 CFM.

3. The smoke removal system shall be subject to s. Comm 52.07 (11) and (12).

(e) *Exiting.* At least one exit shall be provided from each space on each floor level that is independent of any exit located in or through the atrium.

(4) **NEW ATRIUMS.** Atriums constructed on or after January 1, 1986, shall comply with the requirement of the prevailing code.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.27 Roof coverings.** Existing roof coverings not in conformance with the ratings specified in Table 51.03-A of the prevailing code may be allowed to remain on the building. Repairs may be made up to 50% of the entire roof surface with materials that match the existing roof coverings. If more than 50% of the entire roof surface needs to be repaired, the roof covering shall conform to the requirements of the prevailing code. Where wood shingles are utilized to preserve the historic features, the shingles shall be of a fire treated type and of a class C rating.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.28 Illuminated exit signs.** Exit signs shall be provided in accordance with s. Comm 51.15 (5).

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.29 Fire escapes.** (1) **PERMITTED USES.** Existing fire escapes constructed in accordance with s. Comm 51.20 may continue to be used as an exit unless the building use is changed to a use where fire escapes are not permitted.

(2) **HEIGHT ABOVE GRADE.** Existing fire escapes are restricted as follows:

(a) *Building approved prior to 1914.* Buildings having fire escapes constructed prior to September 14, 1914, shall be permitted to remain as built.

(b) *Buildings approved on or after September 15, 1914, but prior to 1942.* Fire escapes used on buildings constructed after September 15, 1914, but prior to January 1, 1942 shall not exceed 60 feet in height, except that fireproof buildings may have fire escapes up to 90 feet in height.

(c) *Buildings approved on or after January 1, 1942.* Fire escapes used on buildings constructed after January 1, 1942 may not exceed 55 feet in height or 5 stories.

(3) **EXITS TO FIRE ESCAPES.** Every fire escape shall be accessible from a public passageway, or shall be directly accessible from each occupied room. Exits to fire escapes shall be standard exit doors as specified in s. Comm 51.15, except that doors to "A" fire escapes may be reduced to not less than 2 feet 6 inches wide. Access to a required fire escape platform may be provided with an interior stairs complying with s. Comm 51.16.

(4) **STRUCTURAL ANALYSIS.** All existing fire escapes intended to be used as a required exit shall be inspected, structurally analyzed or load tested prior to use. A written report from the engineer or architect stating the results of the inspection and structural analysis or load test shall be submitted to the department. The report shall document the physical condition of the fire escape, condition of the attachment of the fire escape to the exterior wall and capacity of the fire escape to support imposed loads. The report shall outline what corrective action is necessary, if any, and shall be submitted to the department.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.30 Stairway requirements.** Except for the following, existing required exit stairways shall comply with the prevailing code:

(1) **WIDTH.** Minimum stairway width shall be at least 3 feet - 0 inches.

(2) **RISER AND TREADS.** (a) *Ten or less people.* Existing stairways serving 10 or less people may have riser and tread dimensions not to exceed a 45° angle with the horizontal.

(b) *More than 10 people.* All required exit stairways shall have a uniform rise of not more than 7/4 inches and a uniform tread not less than 9 1/2 inches, measuring from riser to riser and tread to tread.

(3) **HANDRAILS.** Except for the following, handrails shall comply with the prevailing code.

(a) *Extensions.* The 12-inch handrail extension as specified in s. Comm 51.16 (4) at the bottom and top of stairways does not apply to existing stairways.

(b) *Openings below top rail.* Existing handrails protecting the open sides of stairways and ramps may have an opening no larger than 12 inches between the rails.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.31 Guardrails.** Except for the following, guardrails shall comply with the prevailing code.

(1) **HEIGHT.** If the height of a guardrail is less than 36 inches, an additional rail shall be provided to the top of the rail to increase the overall height to 42 inches.

(2) **OPENINGS BELOW TOP RAIL.** Additional rails provided in accordance with sub. (1) shall be installed such that the distance

between the 2 top rails do not allow the passage of an object with a diameter larger than 12 inches.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.32 Doors.** Exit door size and swing shall comply with the prevailing code. Double doors may be used with a door leaf less than 32 inches in width provided the total door width measures at least 36 inches.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.33 Sanitary facilities.** Sanitary facilities shall be provided in accordance with the prevailing code.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

### Subchapter VI — Alternate Structural Requirements

**Comm 70.35 Purpose.** The purpose of this subchapter is to ensure that qualified historic buildings are structurally sound, while allowing the significant historic fabric of the building to remain.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.36 Scope.** All qualified historic buildings shall meet the loading requirements specified in this subchapter.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.37 Application. (1) ALTERNATE STRUCTURAL REQUIREMENTS.** Except as provided in sub. (2), this subchapter applies to historic buildings being:

- (a) Reconstituted;
- (b) Repaired;
- (c) Remodeled; or
- (d) Changed in use.

**(2) NON-HISTORIC ADDITIONS AND ALTERATIONS. (a) Structurally separated.** New additions which are structurally separated from the existing qualified historic structure shall comply with the loading requirements of ch. Comm 53.

**(b) Affect existing structure.** New additions or alterations which impose vertical or lateral loads on an existing qualified historic building are not permitted unless the supporting structure of the qualified historic building is capable of supporting the imposed load or unless the structure is augmented to meet the additional imposed loads.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.38 Structural report. (1) WHEN REQUIRED.** A structural report shall be prepared on historic structures in accordance with the following:

**(a) Less than 25%.** When a qualified historic building is remodeled or changed in use which affects less than 25% of the total area of the building, a structural analysis shall be performed on that portion being remodeled.

**(b) 25% or more.** When a qualified historic building is remodeled or changed in use which affects 25% or more of the total area of the building, a complete structural analysis shall be performed on the entire building.

**(c) Reconstituted building.** Prior to reconstituting any vacant qualified historic building, a structural analysis of the entire building shall be performed.

**(d) Repairs and replacements.** If any part of an historic building is repaired or replaced, a structural analysis shall be performed on that portion being repaired or replaced showing that the repair or replacement equals or exceeds the structural capability of the part being repaired or replaced.

**(2) VISUAL EXAMINATION.** A visual examination shall be made by an engineer or architect to determine if the building structure has cracks, distortions, sagging, excessive deflections, significant misalignment, signs of leakage and peeling of finishes caused by fire, wind, water or snow.

**(3) ANALYSIS.** A structural analysis shall be prepared by a Wisconsin registered engineer or architect which describes the structural condition of the building.

**(a)** The analysis shall demonstrate that the building structure can support the imposed live loads.

**(b)** An analysis shall be made of the floors to determine the actual load carrying capacity.

**(c)** An analysis shall be made of the roof to determine the actual load carrying capacity or, the architect or engineer shall submit a statement, signed and sealed that the roof structure has stood the test of time [Comm 70.39 (2)].

**(d)** An analysis shall be made to determine if the structural frame can carry all combined loads.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.39 Alternative standards.** The alternative standards for loading and materials may be used in lieu of those in the prevailing code.

**(1) FLOOR LIVE LOADS. (a) Reductions.** Except for storage areas and assembly occupancies, the following floor live loads may be used in all occupancies in lieu of augmenting the structure to accommodate the required loading specified in the prevailing code.

1. The live load specified in the prevailing code may be reduced by 15% for flexure if 3 or more wood structural members are spaced less than 24 inches on center and are joined by a load distributing element. This live load reduction may not be applied to the supports or if the original design used repetitive allowable stresses.

2. The reductions specified in the prevailing code for large tributary areas which comply with s. Comm 53.11 (3) may be used.

3. The live load specified in the prevailing code may be reduced by 10% if the existing structure provides a 2-hour fire-resistive rating. This reduction may be applied to steel and concrete systems only.

4. The permitted reductions specified in subsd. 1.-3. are not to be used cumulatively.

**(b) Posting.** If the actual live load capability is less than the required live load specified in the prevailing code, the actual live capability load shall be conspicuously posted and no greater load may be imposed upon the building.

**(2) TEST OF TIME STANDARD.** The test of time standard may be applied in lieu of meeting the design load requirements for roof dead load, live load and wind load specified in the prevailing code where no change of loading will occur, providing:

**(a)** The historic building has been determined to support the imposed floor loads; and

**(b)** The building has stood for more than 20 years with no visible signs of deterioration.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.40 Use of archaic materials.** This section establishes alternative standards that may be used to evaluate the performance of archaic materials and assemblies in qualified historic buildings.

**(1) ALLOWABLE STRESSES AND CONSTRUCTION REQUIREMENTS.** Allowable stresses and construction requirements for archaic materials may be assigned on the basis of comparison with similar conventional codified materials or tests or both.

**(a) Archaic codes.** Whenever possible, allowable stresses and construction requirements shall be assigned on the basis of the code in effect at the time of construction.

**(b)** The allowable stresses may be determined as follows:

1. Wood. Unless wood is laboratory tested, the allowable stress shall not exceed the lowest allowable stress for that particular species and grade. If the grade and species can not be deter-

mined, the allowable stress for the lowest grade and species may be used.

2. Masonry. Allowable stresses for masonry may be determined by laboratory results.

3. Steel. The allowable stresses for steel may be determined using earlier editions of steel design manuals for the period when the steel was fabricated.

4. Concrete. The allowable stresses for concrete may be determined using earlier editions of concrete design manuals.

(2) **STRUCTURAL CHANGES.** Structural changes to buildings that are restored, altered or repaired may be made with the same materials of which the existing building or structure was constructed in order to maintain historical integrity.

(3) **FIRE RESISTANT PROPERTIES.** (a) The fire resistance of an archaic building element may be determined from tables on fire ratings of archaic materials and assemblies recognized by the department and in accordance with the following conditions:

1. The building element shall be constructed of materials with the same dimensions and properties as indicated in the tables;

2. The thickness shall be at least equal to, or greater than that specified in the tables;

3. All penetrations in the building element, or assembly, for electrical, plumbing and heating, ventilating and air conditioning systems shall be packed with noncombustible cementitious materials and so fixed that the packing material will not fall out when it loses its water of hydration; and

4. Any effect of age, wear and tear shall be repaired so that the building element is sound, and the original thickness of all components is maintained.

**Note:** The department recognizes fire ratings published in the Rehabilitation Guidelines 1980, volume 8, Guidelines on Fire Ratings of Archaic Materials and Assemblies prepared by the National Institute of Building Sciences for the U.S. Department of Housing and Urban Development.

(b) Fire resistance ratings for a building element may be determined by:

1. An actual test by an approved testing laboratory as specified in prevailing code;

2. Typical examples as listed in the prevailing code; or

3. An approved calculation method that utilizes the principles and theories of heat flow, mechanical properties, deflection, capacity and as outlined in the prevailing code.

(c) *New materials.* The fire resistance of any new assembly or materials shall conform to the provisions of the prevailing code.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

### Subchapter VII — Alternate Accessibility Requirements

**Comm 70.41 Purpose.** The purpose of this subchapter is to ensure that qualified historic buildings provide access for people with physical disabilities, while maintaining the significant historic fabric or historic aspects of such buildings.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.42 Accessibility requirements.** All qualified historic buildings being altered or remodeled, added to or changed in use shall comply with the requirements of ch. Comm 69.21 and ADAAG 4.1.7.

**History:** Cr. Register, January, 1998, No. 505, eff. 2-1-98.

### Subchapter VIII — Alternate Energy Conservation Requirements

**Comm 70.46 Purpose.** The purpose of this subchapter is to provide alternative standards for qualified historic buildings for conserving energy, while maintaining the significant historic fabric or historic aspects of such buildings.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.47 Scope.** The prevailing code for energy conservation applies to all qualified historic buildings, except as provided in ss. Comm 70.48 to 70.51.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.48 Application.** (1) **APPLICABLE BUILDINGS.** Except as provided in sub. (2), this subchapter shall apply to:

(a) Qualified historic buildings undergoing remodeling;

(b) Qualified historic buildings which undergo any change of occupancy or use which would increase the energy consumption; or

(c) Replacement of heating and cooling equipment and lighting systems within qualified historic buildings.

(2) **EXEMPT BUILDINGS AND STRUCTURES.** The following buildings and structures are exempt from the provisions of the prevailing energy conservation code as well as the alternative energy conservation requirements of this subchapter:

(a) Totally preserved buildings used as historical exhibits; and

(b) Seasonal use buildings.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.49 Definitions.** In this subchapter:

(1) "Accessible" means capable of being reached without undesired removal or alteration of any part or parts of the permanent structure, finish material or paved sidewalk or driveway which would cause damage to historic fabric. Cavities under floors, or unfinished attic areas are considered accessible.

(2) "Thermal resistance (R)" means a measure of the ability of materials to retard the transfer of heat. The R-value is the reciprocal of a heat transfer coefficient or thermal transmittance, expressed by U;  $R=1/U$ .

**Note:** The higher R-value of a material, the more difficult it is for heat to flow through the material.

(3) "Thermal transmittance (U)" means the coefficient of heat transmission expressed in units of Btu per square foot per degree F per hour. It is the time rate of heat transfer. The U-value applies to combinations of different materials used in series along the path of heat transfer and also to single materials that comprise a building section, and includes cavity air spaces and surface air films on both sides.

**Note:** The lower the U-value of a material, the more difficult it is for heat to flow through the material.

(4) "Thermal performance" means the design heat loss, excluding infiltration and ventilation, through above-grade gross walls and roof and attic assemblies facing the conditioned interior.

(5) "Vapor barrier" means a material, including vapor barrier paint with a vapor transmission rate less than 1.00 perm.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.51 Alternative energy conservation requirements.** Except as specified in subs. (3) and (4), the alternative energy conservation requirements as specified in this subchapter may be applied to a qualified historic building where strict compliance with the prevailing code would destroy the historic fabric of the building.

(1) **INFILTRATION.** (a) *Windows and doors.* 1. All exterior windows and doors shall be gasketed or weatherstripped.

2. If the existing windows are replaced with factory manufactured windows, the windows shall be double glazed or equipped with interior or exterior storm windows.

(b) *Chimney flues.* Flues which are no longer in use shall be closed off and sealed against infiltration.

(c) *Exterior openings.* The following openings in the exterior building envelope shall be caulked, gasketed or otherwise sealed:

1. Exterior joints around window and door frames;

2. At penetrations of utility services through walls, floors and roofs; and

3. Between the foundation and box sill.

(2) THERMAL PERFORMANCE OF THE EXTERIOR ENVELOPE. Historic buildings shall meet the minimum thermal performance values specified in the prevailing code shall or the prescriptive energy conservation measures specified in this subsection.

(a) *Attics.* Where accessible, insulation shall be installed in the attic to a level of R38. Minimum ventilation shall be provided above the ceiling or attic insulation. The free area of ventilation shall be at least of the horizontal area. Vapor barriers shall be installed on the warm side of all insulation materials present in the attic. Access panels or doors to attics shall be insulated to a level of R5 if vertical or to a level of R19 if horizontal.

1. When adding insulation to existing attic insulation, do not use a material with an integral vapor barrier or install a vapor barrier between layers of insulation material; otherwise, condensation problems may result.

2. If cellulose insulation materials are used, the cellulose should be fire-proofed with chemicals other than sulfate compounds. Sulfate compounds may form sulfuric acid when in contact with moisture which could cause or accelerate structural deterioration.

(b) *Exterior walls.* All accessible exterior wall cavities shall be insulated to a level of R11 or completely filled with insulation. Where accessible, a vapor barrier shall be installed on the warm side of the insulation, facing the conditioned space. Where masonry walls are insulated from the interior, the walls shall be insulated to at least R10.

(c) *Box sills.* Where accessible, insulation shall be installed in box sills to a level of R19.

(e) *Doors.* Doors which are not of the original material shall be insulated, double glazed or equipped with a storm door. Where no vestibule exists, exterior doors which are not of the original material or are not replicas designed to be compatible with the historic aspects of the structure shall be insulated, double glazed or equipped with a storm door.

(f) *Floors over crawl spaces.* If accessible, insulation with an R-value of 11 or greater shall be installed in floors of crawl spaces.

(g) *Moisture control in crawl spaces.* Minimum ventilation shall be provided in unheated crawl spaces with insulated ceilings. The area of ventilation shall be at least 1/300 of the floor space. The area of ventilation shall be distributed equally to provide cross-ventilation. Where accessible, a vapor barrier shall be applied to cover the exposed earth.

(3) HEATING AND COOLING EQUIPMENT. The replacement of heating and cooling equipment which serves qualified historic buildings shall comply with the provisions of the prevailing code.

(a) *Alternative air handling duct insulation.* All ducts, plenums and similar enclosures serving qualified historic buildings shall be insulated as specified in the prevailing code.

(b) *Alternative pipe insulation.* All piping within qualified historic buildings shall be thermally insulated to the levels specified in the prevailing code where they may be made accessible.

(4) WATER HEATING. The replacement of water heating equipment in qualified historic buildings shall comply with the provisions of the prevailing code for energy conservation.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

### Subchapter IX — Alternate Mechanical Requirements

**Comm 70.55 Purpose.** The purpose of this subchapter is to ensure that qualified historic buildings are properly heated, ventilated and air conditioned, while allowing the significant historic fabric of the building to remain.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.56 Application. (1) ALTERNATE MECHANICAL REQUIREMENTS.** Except for historic exhibits and seasonal use

buildings, used during the period of May 15 through September 15, all qualified historic buildings shall be provided with a heating system.

(a) The building shall be equipped with heating equipment that equals or exceeds the transmission losses and ventilation of infiltration losses, whichever are greater. The heat loss shall be based on the design criteria for outside temperatures and interior design temperatures for the specific use specified in the prevailing code.

(b) If the existing heating equipment output equals or exceeds the heat loss, the heating equipment may be used provided all the safety devices are in working order or the defective safety devices are replaced.

(c) If room sizes are increased and the heating equipment serving the room has sufficient capacity to meet the increased heat loss, the equipment may be used provided:

1. The equipment has sufficient capacity to meet the new heat loss and the equipment can operate safely at the increased temperature or pressure; and

2. Safety devices are repaired or replaced to operate at the increased temperature or pressure.

(d) If room sizes are increased and the heating equipment serving the room does not have sufficient capacity to meet the increased heat loss:

1. Additional equipment shall be added to meet the new heat loss; or

2. New heating equipment shall be provided to offset the additional heat loss.

(e) If rooms are reduced in size such that the resulting heat loss is less than that provided to the space, the existing equipment may be altered by reducing the heat to that space if reducing the heat does not affect the safety devices regulating the system.

(f) Any alteration or remodeling of existing heating equipment or systems shall conform to the prevailing code for that portion being remodeled or altered. Unless replaced with a like kind, the replacement shall conform to the prevailing code.

(2) LIGHT AND VENTILATION. Except for historic exhibits, all qualified historic buildings shall be provided with natural light and ventilation as specified in the prevailing code.

(3) AIR CONDITIONING. Existing air conditioning systems may be allowed to remain. Any alteration made to an existing air conditioning system shall conform to the prevailing code.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

### Subchapter X — Alternate Electrical Requirements

**Comm 70.58 Purpose.** The purpose of this subchapter is to ensure that qualified historic buildings are properly wired while allowing the significant historic fabric of the building to remain.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.59 Application. (1) QUALIFIED HISTORIC BUILDINGS.** Except for historic buildings complying with sub. (2), all other qualified historic buildings shall be serviced with electricity as follows:

(a) *Change of use.* If a qualified historic building is changed in use, a load calculation of the building shall be performed for the proposed use. If the load calculation exceeds the actual service provided, the service shall be upgraded to meet the new load.

(b) *Reconstituted.* If a qualified historic building is without electrical service and is going to be reconnected to electrical service, the existing wiring shall be inspected at the service panels, outlets, switches and where exposed to determine the physical condition of the wire and equipment.

(c) *Alterations and repairs.* Any alterations, repair or replacement to an existing conductor, outlet, switch and equipment in a qualified historic building shall be made in accordance with the prevailing electrical code for that portion being altered, repaired or replaced.

(d) *Existing building.* Existing qualified historic buildings may use the existing electrical system without upgrading the electrical system to the prevailing code.

(2) HISTORIC EXHIBITS. Qualified historic buildings used as historic exhibits do not require electrical service.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

### Subchapter XI — Totally Preserved Buildings Used As Historical Exhibits

**Comm 70.62 Scope.** This subchapter establishes alternative standards for a qualified historic building that is open to the public and used solely as an historic exhibit. Repairs may be made without conformity to the prevailing code to restore the building to the original condition.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.63 Historic exhibits. (1) Exempt.** Except as specified in sub. (2), a qualified historic building used as an historic exhibit is exempt from complying with the requirements of the prevailing code or other sections of ch. Comm 70.

(2) Minimum safety requirements. The following minimum safety requirements shall be complied with:

(a) The historic building is open to the public only under the supervision of a tour guide;

(b) The historic building is not lived in, slept in or worked in except for the purpose of demonstrating to the public how people lived in a particular era;

(c) No smoking is allowed in the building;

(d) No open flame equipment is installed in the building, other than fireplaces and original equipment;

(e) Fire extinguishers are provided, but may be located in a nonconspicuous location on the premise;

(f) At least one smoke detector is provided for each 1,200 square feet of area with a minimum of one detector per floor level. Where electricity is available, the smoke detectors shall be connected to the electrical power. Where no electrical power is available, the smoke detector may be of a battery type. Smoke detectors shall be tested weekly;

(g) Access for the disabled is provided in accordance with subch. VII;

(h) The capacity of the floor system shall be determined by a registered architect or engineer and any changes that are necessary shall be made prior to the building being open to the public;

(i) Historic buildings provided with only one exit shall be restricted to a total capacity of 12 persons of which not more than 6 persons may be located above the first floor at any one time;

(j) Signs shall be posted in the building identifying and warning of stairs and headroom clearance that do not conform to the prevailing code; and

(k) Exit signs shall be provided in accordance with the prevailing code in buildings occupied prior to 1/2 hour before sun rise and 1/2 hour after sun set and in all areas not provided with natural lighting.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.

**Comm 70.64 Sanitary requirements.** Toilet facilities shall be made available in accordance with the prevailing code. The facilities may be located on the site and serve more than one historic exhibit.

**History:** Cr. Register, September, 1986, No. 369, eff. 10-1-86.