



DEPARTMENT OF ADMINISTRATIVE SERVICES

PROPOSED CHANGE OF THE CONNECTICUT STATE BUILDING CODE AND FIRE SAFETY CODE

DATE SUBMITTED: \_\_\_\_\_

CODE INFORMATION

Proposed change to:  Building Code  Fire Safety Code

Code section(s): \_\_\_\_\_

PROPONENT INFORMATION

Name: \_\_\_\_\_ Representing: SEAConn - Structural Engineers Association of Connecticut

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_  
Street Address Town State Zip Code

PROPOSAL INFORMATION

Description of change and reason for change (attach additional information as needed):  
\_\_\_\_\_

Proposed text change, addition or deletion (attach additional information as needed):  
\_\_\_\_\_

Supporting data and documents (attach additional information as needed)  
\_\_\_\_\_

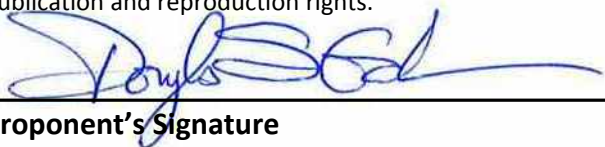
This Proposal is original material. (Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought or research and, to the best of his/her knowledge, is not copied from another source.)

This Comment is not original material, its source (if known) is as follows: (such as material / code development proposal from a prior development cycle or proposal submitted to model code committee etc.)

I would like to make an in-person presentation of my proposal.

Release

I hereby grant the State of Connecticut full rights to the use of this material without benefit to me, including, but not limited to, publication and reproduction rights.

  
Proponent's Signature

\_\_\_\_\_  
Printed Name

PLEASE EMAIL (PREFERRED) TO [DAS.CodesStandards@CT.GOV](mailto:DAS.CodesStandards@CT.GOV) OR MAIL OR FAX (SEE BELOW)

Department of Administrative Services  
Office of the State Building Inspector  
450 Columbus Boulevard, Suite 1303  
Hartford, CT 06103  
Tel: 860-713-5900 Fax: 860-713-7410  
Affirmative Action/Equal Opportunity Employer

**DESCRIPTION FOR CHANGE AND REASON FOR CHANGE:**

The revision clarifies that the load ‘combination’ is considered for the 5% increase, not individual loads. In addition, it requires “load effects” instead of “loads” so that more than just the magnitude of load is considered, but location as well, so that the effect of the applied loads such as moment and shear are considered. The “5 percent rule” has long been applied by engineers to the combined design loads acting on a structure. This is consistent with similar past and present “5 percent rule” provisions that apply to member stresses or demand-to-capacity ratios (e.g., IEBC 2021 506.5.1). Changes to individual portions of the design loading are not as relevant or as descriptive as changes to the whole, and it is 5 percent changes to the whole that have long been held to constitute a significant change worthy of more detailed evaluation.

---

**PROPOSED TEXT CHANGE:**

**[Amd.] [BS] 502.3 Existing structural elements carrying gravity load.**

Any existing gravity load-carrying structural element for which an *addition* and its related *alterations* cause an increase in design dead, live or snow load, including snow drift effects, ~~of more than 5 percent~~ shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose ~~vertical gravity~~ load-carrying capacity is decreased as part of the *addition* and its related *alterations* shall be considered to be an altered element subject to the requirements of Section 503.3. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered to be an existing lateral load-carrying structural element subject to the requirements of Section ~~502.3~~ 502.4. The increase in gravity loads or decrease in capacity shall account for the cumulative effects of the additions and or alterations since original construction.

**Exceptions:**

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and the *addition* together comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
- ~~1.2.~~ Structural elements whose demand/capacity ratio is not increased by more than 5%.

**[Amd.] [BS] 503.3 Existing structural elements carrying gravity load.**

Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, ~~of more than 5 percent~~ shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design dead, live and snow loads including snow drift effects required by the *International Building Code* for new structures. The increase in gravity loads or decrease in capacity shall account for the cumulative effects of the additions and or alterations since original construction.

**Exceptions:**

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional

light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

2. Buildings in which the increased dead load is due entirely to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m<sup>2</sup>) or less over an existing single layer of roof covering.
- ~~2.3.~~ Structural elements whose demand/capacity ratio is not increased by more than 5%.

**[Amd.] [BS] 805.2 Existing structural elements carrying gravity loads.**

Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, ~~of more than 5 percent~~ shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design dead, live and snow loads, including snow drift effects, required by the *International Building Code* for new structures. The increase in gravity loads or decrease in capacity shall account for the cumulative effects of the additions and or alterations since original construction.

**Exceptions:**

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. Buildings in which the increased dead load is attributable to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m<sup>2</sup>) or less over an existing single layer of roof covering.
- ~~2.3.~~ Structural elements whose demand/capacity ratio is not increased by more than 5%.

**[Amd.] [BS] 1103.1 Additional gravity loads.**

Any existing gravity load-carrying structural element for which an *addition* and its related *alterations* cause an increase in design dead, live or snow load, including snow drift effects, ~~of more than 5 percent~~ shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *addition* and its related *alterations* shall be considered to be an altered element subject to the requirements of Section 805.2. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered to be an existing lateral load-carrying structural element subject to the requirements of Section 1103.2. The increase in gravity loads or decrease in capacity shall account for the cumulative effects of the additions and or alterations since original construction.

**Exceptions:**

1. Buildings of Group R occupancy with not more than five dwelling units or sleeping units used solely for residential purposes where the *existing building* and the *addition* together comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
- ~~1.2.~~ Structural elements whose demand/capacity ratio is not increased by more than 5%.