AGENDA

UBC COMMISSION
STRUCTURAL ADVISORY COMMITTEE

December 2, 2021 3:00 pm

This agenda is subject to change up to 24 hours prior to the meeting.

Anchor Location
Room 474
Heber M Wells Building
160 E 300 S
Salt Lake City UT

Join with Google Meet
meet.google.com/wiy-xfma-fpt

Join by phone
(US) +1 617-675-4444 PIN: 144 794 987 2720#

1. Roll call
2. Approve the minutes from the November 4, 2021 meeting
3. Review amendments for IBC Chapter 16
4. Final review of the structural portion of the IBC, IRC and IEBC

Next Scheduled Meeting: January 6, 2022

Please call Sharon at 530-6163 or email ssmalley@utah.gov if you do not plan on attending this meeting.

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Dave Taylor, ADA Coordinator, at least three working days prior to the meeting.
Division of Occupational and Professional Licensing, 160 East 300 South, Salt Lake City UT 84111, Phone 530-6628 or toll-free in Utah only 866-275-3675

MINUTES

UTAH
UNIFORM BUILDING CODE COMMISSION
STRUCTURAL ADVISORY COMMITTEE
MEETING

November 4, 2021 3:00

CONVENED: 3:10 ADJOURNED 4:56

STAFF:
Steve Duncombe, Bureau Manager
Sharon Smalley, Board Secretary

COMMITTEE MEMBERS:
Jeremy Achter
Oliver Burt
John Saunders (absent)
Tyler Wright
Josh Blazzard, Commission Liaison
Patrick Tomasino
Brent Maxfield

VISITORS:

MINUTES

A motion was made by Oliver Burt to approve the minutes form the October 7, 2021 meeting as written. The motion was seconded by Brent Maxfield and passed unanimously.

REVIEW THE PROPOSALS FOR SECTION 1613.1.1 & 1605

The committee reviewed the proposal submitted by Tyler Wright for these two sections. Following the discussion, a motion was made by Brent Maxfield to accept the proposal as modified during the discussion. The motion was seconded by Oliver Burt and passed unanimously.

The current amendments for chapter 16 will be reviewed at the December meeting along with the modified proposal approved during this meeting.

The meeting adjourned at 4:56.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

Utah 2021 IBC Amendment Proposals

Chapter 16 of IBC

Proposed that this amendment below would replace the current Amendment (2) for Chapter 16 of the IBC.

(2) In IBC, Section 1605.1, shall have an exception 4 added with the following: "4. ASCE 7-16 Section 2.3.6 Equation 6 shall be modified to 1.2D + Ev + Eh + L + f2S and 1.2D + Ev + Emh + L + f2S with f2 = (0.20 + 0.025(A-5)) where the roof snow load exceeds 30 pounds per square foot (1.44kN/m2). Where A = Elevation above sea level at the location of the structure (ft/1,000)." f2 = 0 for roof snow loads of 30 pounds per square foot (1.44kN/m2) or less.

Propose that Amendment (3) for Chapter 16 of IBC be revised as noted below.

(3) In IBC, *Section 1605.1*, Exception 2 ~~in each section~~ shall be deleted and replaced with the following: "2. *Where the allowable stress design load combinations of ASCE 7 Section 2.4 are used,* flat roof snow loads of 30 pounds per square foot (1.44 kN/m2) *or less* and roof live loads of 30 pounds per square foot (1.44 kN/m2) or less need not be combined with seismic loads. Where flat roof snow loads exceed 30 pounds per square foot (1.44 kN/m2), the snow loads may be reduced in accordance with the following in load combinations including both snow and seismic loads. S as calculated below, shall be combined with seismic loads.

$S = (0.20 + 0.025(A-5))P_{roof}$, where S shall be greater than or equal to $0.20P_{roof}$.

Where:

S = Weight of snow to be used in combinations with seismic loads.

A = Elevation above sea level at the location of the structure (ft/1,000)

P_{roof} = Design *flat* roof snow loads, *Pf or Ps*, psf.

For the purpose of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor, I, used in calculating Pf may be considered 1.0 ~~for use in the formula for Ws~~.

Propose that Amendment (9) for Chapter 16 of IBC be revised as noted below.

(9) A new IBC, Section 1613.1.1, is added as follows: "1613.1.1 Effective Seismic Weight. In ASCE 12.7.2 and 12.14.8.1 as referenced in Section 1613.1, Definition of W, Item 4 is deleted and replaced with the following:

4. Where flat roof snow load, Pf, exceeds 30 psf *(1.44 kN/m2)*, the snow load included in the effective seismic weight shall be calculated in accordance with the following equation: Ws = (0.20 + 0.025(A-5))Pf >= 0.20Pf.

WHERE:

Ws = Weight of snow to be included as effective seismic weight.

A = Elevation above sea level at the location of the structure (ft./1,000)

Pf = Design *flat* roof snow load, psf.

For the purpose of this section, snow load shall be assumed to be uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor, I, used in calculating Pf may be considered 1.0 for use in the formula for Ws."

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S = (0.20 + 0.025(A-5)Pf is greater than or equal to 0.20Pf.

Where:

S = Weight of snow to be used in combinations with seismic loads.

A = Elevation above sea level at the location of the structure (ft/1,000)

Pf = Design roof snow loads, psf.

For the purpose of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor, I, used in calculating Pf may be considered 1.0 ~~for use in the formula for Ws~~.

Please review these prior to our next meeting so we can have a discussion on their approval.

For the mass of snow to be included as seismic mass, Amendment #9 of the same chapter already covers this. The references also align with the 2021 IBC and current ASCE 7, so no adjustment needs to be made in my opinion. See below for snip of Amendment #9.

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Ws = Weight of snow to be included as effective seismic weight
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Thanks,

TYLER WRIGHT, SE

Chief Engineer

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S = (0.20 + 0.025(A-5))P_{roof}, where S shall be greater than or equal to 0.20P_{roof}.

Where:

Should this word be here? If Ps is used, by definition, it isn't "flat". I wonder if it should read "Design roof snow loads on the horizontal projection, Pf or Ps, psf." instead.

S = Weight of snow to be used in combinations with seismic loads.

A = Elevation above sea level at the location of the structure (ft/1,000)

horizontal projection

P_{roof} = Design *flat* roof snow loads, *Pf or Ps*, psf.

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