

Honorable Oregon Senator Lee Beyer, Chair, Committee on Business and Transportation

RE: Committee hearing HB 2737 - May 22, 2017

From: Tom Bowerman

Date: May 19, 2018

ORS Chapter 455, Building Codes; ORS 455.040 includes: "The director shall encourage experimentation, innovation and cost effectiveness by municipalities in the adoption of ordinances, rules or regulations which conflict with the state building code."

The Oregon Building Codes Agency (OBCA) has not adhered to this Oregon law, despite repeated efforts to engage the Agency. Multiple jurisdictions have been compelled to exercise creative license or passively ignore strict interpretation of Oregon's code in order to meet other policies dealing with homeless housing. Hence we find ourselves before the Legislature to induce the OBCA regarding characteristics of affordability and safety of very small dwellings. HB 2737 - A is necessary to address a severe deficiency in timely response by our Agency to proactively address 'work-arounds', legal or not, already practiced throughout the State.

I am disappointed by the level of misinformation about HB 2737-A being put forth by the Agency Director, and his active solicitation of building trades opposition. This bill is actually quite simple and deserves to be passed by the 2017 Oregon Legislature.

What the bill does:

- Requires Oregon Building Code incorporation of specific specifications for sleeping lofts in dwellings under 400 sq.ft. using specification already passed by the International Codes Council (IBC, the U.S. uniform building codes organization used by Oregon and 48 other states).
- Improves the efficiency and cost effectiveness of very small houses.
- Increases housing choice.
- Improves the chances for homeless people to be housed economically.
- Decreases the incentive for outright avoidance of building code conformance.
- Increases employment opportunities of building trades.
- Allows appropriate sizing of required dimensions of very small dwellings otherwise intended for conventional buildings.
- Encourages improvements in building quality and permanence of very small dwellings.
- Gives the OBC Agency time to thoroughly vet the conditions and standards for these changes in their conventions of code updates while simultaneously directing the Agency to adopt interim standards already adopted by the IBC.
- Decreases life safety risk by improving housing alternatives for unsheltered Oregonians.

What the bill does not do:

- Does not exempt requirements for licensed trades or quality controls already contained in law.
- Does not alter land use codes.
- Does not remove Oregon Building Codes Agency from review and adoption of standards pursuant to addressing legal occupancy of tiny dwellings.

The Oregon Building Codes Director has raised several points of objection to HB 2737, which I strongly believe are unfounded.

The Director's core opposition centers on increased risk of fire injury. My analysis (appendix A) of his conjectured increase risk of 20%, using his numbers, finds that if all 20,000 officially recognized unsheltered Oregon homeless were suddenly housed in tiny houses, one additional death would occur every 2500 years. This is infinitesimal compared to the nine Eugene and Portland fatalities from cold exposure in the first 10 days of 2017. He also sent requested corroboration from the State Department of Justice and a private consulting engineering firm. These two responses were quite odd in their response, whereby they state that there is no conclusive evidence that small houses will be less safe, because there are no studies which have been conducted linking small houses with increased fire risk, although they nonetheless parrot his claim that risk might be present. Under this analytical rubric, the presumption that no evidence but conjecture is sufficient to quash a step toward improving housing for homeless or those who wish broader housing choice. It becomes a very tenuous objection to a beneficial change in regulation.

It has also just come to my attention, several hours before the deadline for submitting written testimony for the scheduled hearing, that the OBCA Director has proposed an amendment to now put the Agency on track to adopt standards for stairs and ladders to small dwellings by February 2018. This appears a rather suspect ploy given the Director's multi-year intransigence to dealing with small home building design. This includes two sessions of stakeholder work groups where it was outright opposition instead of constructive discussion about how we could collectively, proactively, "get to yes". We are now almost through a long process and suddenly the Director becomes cooperative? I worry that once in control of the process that the Director reverts to a stated dislike of small houses, resulting in little productive progress until we must come back once again for legislative relief.

I am very open to working with the OBCA if and when they do engage proactively in the small dwelling topic. Until willingness to do so is actually demonstrated, we can also suffice in the near term by adopting the language which was vetted and passed by the ICC for the International Residential Code. There is nothing in this law which prevents the OBCA from convening the discussion in a timely manner and return to the Legislature in the next session, if improvements are made and broad stakeholder support is attained, to rescind if appropriate.

I thereby ask that you pass HB 2737 -A in its current form.

Appendix A

Evaluating Mortality Risk of Tiny Houses Context for HB 2737 -A

Tom Bowerman, PolicyInteractive Research 5.12.2017

Oregon Building Codes Agency (OBCA) Administrator Mark Long submitted written legislative testimony opposing HB 2737 dated April 17, 2017.ⁱ The central stated objection to HB 2737 is that there is a 20% increased life safety risk under HB 2737, thus putting Oregon at tort liability risk. Twenty percent higher risk sounds like a big risk increase, but evaluation reveals the increased risk to be one death every 2500 years if all 20,000 unsheltered homeless were miraculously housed in tiny houses today.ⁱⁱ

Compare, however, that in the first 10 days of 2017, in Portlandⁱⁱⁱ and Eugene^{iv}, 9 deaths from weather exposure to unsheltered homeless were reported. Cold exposure is far higher risk than fire, but homicides are much greater risk than weather.

Homelessness dramatically elevates one's risk of illness, injury and death. For every age group, homeless persons are three times more likely to die than the general population. Middle-aged homeless men and young homeless women are at particularly increased risk. Younger homeless women have from 4–31 times the risk of dying when compared to housed women, principally because of the vulnerability due to unsafe non-private living conditions.^v

The average age of death of homeless persons is about 50 years, the age at which Americans commonly died in 1900. Homeless people suffer the same illnesses experienced by people with homes, but at rates three to six times higher.^{vi} Comparably, non-homeless Americans can expect to live to age 78.^{vii}

According to HUD's federal 2016 Annual Homeless Assessment Report, on a single night in January 2016, state and local planning agencies reported:

- Most homeless people (373,571) were located in emergency shelters or transitional housing programs while 176,357 persons were unsheltered.
- The number of families with children experiencing homelessness was 61,265.
- On a single night in January 2016, 39,471 veterans were experiencing homelessness.
- The number of unaccompanied homeless youth and children appeared to be 35,686 though HUD will take a more targeted survey in January 2017.
- In four states, more than half of all people experiencing homelessness lived in unsheltered locations: California (66%), Oregon (60.5%), Hawaii (54%), and Nevada (53%).

If mortality risk is truly an institutional concern of the State of Oregon, analysis of risk clearly shows that housing people in small residences would be thousands of times less risk of mortality than leaving them homeless.

It is also worth emphasizing that the purported increased fire risk to occupants of small houses by OBCA is entirely conjectural. The private engineering firm OBCA hired to comment on HB 2737 noted: "...this comment does not mean that small houses are a danger to their occupants and should not be permitted for construction. The reduced cost of these houses is a significant benefit to the community in that they provide affordable housing."^{viii} If life safety is really the principal objective, then Oregon and the Building Codes Agency should either come up with the \$150,000 average cost per low cost HUD approved apartments (or \$250,000 per house). Since this is unlikely to occur anytime soon, the least Oregon can do is to facilitate the building code modifications to make very small homes as feasible as possible.

Advocates promoting code adjustments for tiny houses originally approached but rebuffed by the OBCA. Now pursuing the legislative approach, we nevertheless aim for the equal or higher concerns of life safety than does OBCA, we support fire and life safety in the broadest sense. Insofar as building safety, this includes state of the art smoke detection, fire resistive surfaces, written instructions and policies against smoking or fire sources within dwellings and similar standards above and beyond that of the ORSC. We now intend to pursue this bill to successful conclusion in this legislative session because time is of the essence due to thousands of lives constantly at risk and OBCA's pattern of disinterest. We trust that with legislative impetus, OBCA engagement will occur within its conventional code update with understanding that the legislature cares about this issue.

It is also essential to understand that the rationales for HB 2737 are not exclusive to homelessness. There are those who are well off who have experienced and would by choice live in a tiny house for reasons other than cost. Personal choice, resource conservation, suitability for chosen lifestyle, employment opportunities and other reasons drive the pent up demand for tiny homes. The homeless issue however presently drives the urgency.

It is important to also understand that HB 2737 represents specific language that has passed our national code council process and will be included in the IRSC 2018 update. Moving this to immediate adoption, as is being done in a number of other states, allows Oregon to address a highly urgent problem. The risk analysis factors argue strongly for its adoption.

OBC Administrator Long has taken an extremely limited view of risk. In the bigger scope of true risk, as Legislative Council has also deduced, it is unfathomable that a court of law would accept the argument that Oregon breached its fiduciary role by adopting language approved by the ICC agency.

Tom Bowerman has a degree in Architecture and has worked in the design and construction trades for fifty years. Currently retired, he co-owns three Oregon businesses including a contracting company, an investment property management company, and consults on small dwelling design and safety for Square One Villages.

ⁱ OBCA written testimony April 17, 2017

<https://olis.leg.state.or.us/liz/2017R1/Downloads/CommitteeMeetingDocument/120752>

ⁱⁱ Based on representations contained in the Mark Long April 17 OBCA document, describing an analysis of fire mortality in houses in the US and Canada from July 2016 thru March of 2017. This referenced 25 total fatalities from fires in US and Canada.ⁱⁱ For the sake of analysis, I do not debate the author's dubious assumption that tiny houses are of higher fire risk than conventional three bedroom homes. Extrapolating the 7+ month data to a full year reveals the risk of dying from fire would be about 37/350,000,000 per year or .0000001 fire fatality per person per yearⁱⁱ (0000001 = 1/10,000,000 fire death per person per year). Thus, the assumed 20% risk increase of risk to living in a manufactured house (or small house by OBCA extended assumption) would be .0000002. If all 20,000 unsheltered people in Oregon were miraculously provided a small house residency the aggregated increased risk would be .0004 (20,000 x .0000002) To put it in more understandable context, this translates to one additional death every 2500 years (.0004/2500).

ⁱⁱⁱ <https://www.theguardian.com/society/2017/jan/11/homeless-deaths-winter-portland-oregon>

^{iv} <http://registerguard.com/rg/opinion/35254478-78/yes-they-have-names.html.csp>

^v Premature Mortality in Homeless Populations: A Review of the Literature; J. O'Connell, MD, 2005. p.13

^{vi} Wright JD. "Poor People, Poor Health: The health status of the homeless." In Brickner PW, Scharer LK, Conan BA, Savarese M, Scanlan BC. Under the Safety Net: The Health and Social Welfare of the Homeless in the United States. New York: WW Norton & Co., 1990: 15–31.

^{vii} National Center for Health Statistics: <http://www.cdc.gov/nchs/fastats/lifexpec.htm>

^{viii} Ibid, OBCA April 17, 2017 p.7