

A wide-angle photograph of a high-altitude mountain landscape. In the foreground, a rocky, grassy slope leads to a small building with a red metal roof under construction. A ladder is leaning against the roof. Various construction materials, including blue and black barrels, orange tarps, and metal sheets, are scattered on the ground. In the background, a massive glacier flows down a steep, snow-dusted mountain slope. The sky is blue with scattered white clouds.

AO 2020-85: Adoption of Updated Building Safety Codes

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State Constraints on Local IFC Actions

- **13 AAC 50.025:** *International Fire Code 2012 Edition (IFC)* is adopted to regulate all occupancies and buildings for the safeguarding of life and property...
- **13 AAC 50.075:** (a) The state fire marshal will, in the marshal's discretion, exempt a municipality from compliance with the requirements of 13 AAC 50.027, if the municipality: ... and (2) agrees in writing to concurrently undertake or continue a building fire safety inspection program that meets or exceeds the program conducted by the division of fire and life safety.
- **13 AAC 55.030:** (c) No local political subdivision may set minimum standards that are less stringent than those set out in 13 AAC 50 - 13 AAC 55 unless that action is approved in writing by the state fire marshal after receipt of justification from the local jurisdiction.

Current Fire Code (2012 IFC 507.1) adopted by both the SOA and MOA requires homes being built to be able to provide fire protection water supply through various means.

1. Extend public water utility supply (IFC 507 & Appendix B)
2. Provide an NFPA 1142 compliant private water supply system such as a reservoir, drafting site, or private hydrant system (IFC Appendix B103.3)
3. Construct homes in accordance with the International Wildland-Urban Interface Code (WUI) which involves defensible space and ignition resistant construction (IFC Appendix B103.3)

The proposed amendment does not require residential sprinklers but provides them as another option in areas where adequate and reliable firefighting water supply is NOT available

4. Provide automatic sprinkler system

SPRINKLERS SAVE LIVES & REDUCE PROPERTY DAMAGE

Where do fatal fires originate?

25% - Bedroom origin

24% - Family room, living room or den origin

16% - Kitchen

92% of all civilian structure fire deaths resulted from home fires

85% lower risk of dying where sprinklers are present (NFPA)

90% of the time a single sprinkler activation was sufficient to control the fire

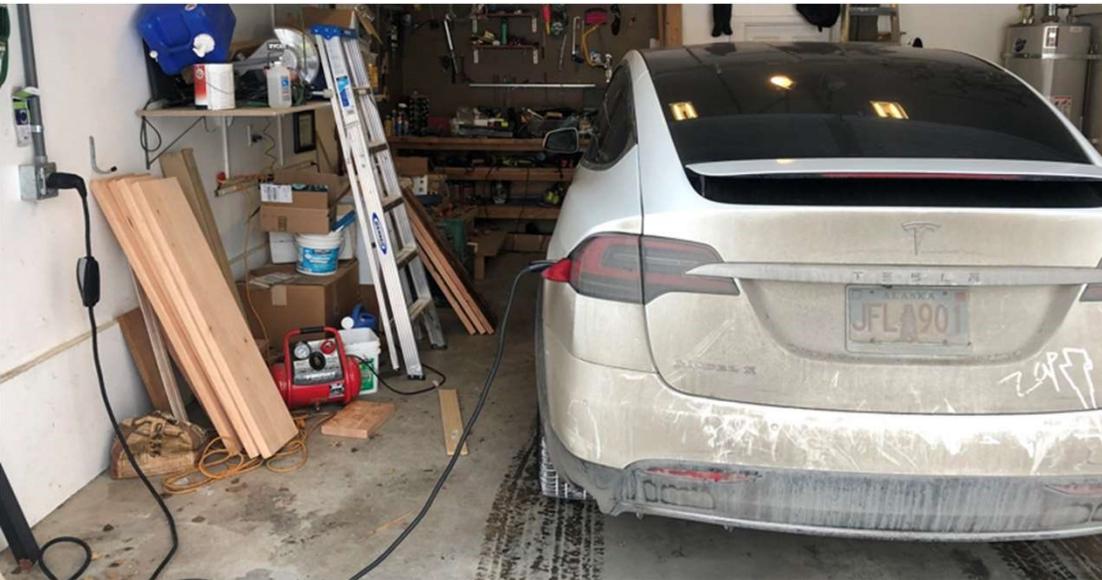
97% of the time sprinklers contained the fire to the room of origin

71% reduction in property damage in structures with fire sprinklers

- Statistic sourced directly from the records of NFPA

Why EV Ready?

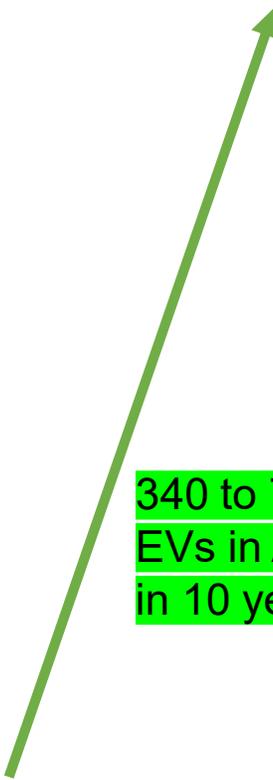
- Much cheaper and easier now than later
- Prevents “creative solutions” for charging
- Future Proofing Alaska’s home stock
- Adopted by International Code Council (ICC)



Revised Language for EV Ready Rough In

23.30.210.52: **Electric vehicle (EV) charging rough-in for detached one- and two-family dwellings and townhouses.**

Detached one- and two-family dwellings and townhouses require a minimum of one EV charging rough-in per dwelling unit. The rough-in shall include an adequately sized conduit or cable wiring method terminated in a J-box with cover. The panel shall have sufficient space and capacity to feed a 50-amp circuit with 9.6 KVA EV load. The outlet shall be located inside a garage when the dwelling is served by a garage, otherwise, the outlet shall be located adjacent to onsite parking. **The spare load capacity required by this amendment shall not require the capacity of the service, feeder or panel to be larger than 200 Amps. A load calculation or demand KW history per the NEC is required to verify adequate capacity is available for the electric vehicle charger at the time of the charger installation.**



**340 to 7200+
EVs in Anchorage
in 10 years**

Revised Language for Energy Code Adoption

- **23.85.N1105.1 Scope (Simulated Performance Alternative).**

Add an exception as follows:

Exception: Compliance with section N1105 may be demonstrated through an AHFC approved home energy rating program that meets the following:

- a. A minimum five-star rating is required.
- b. The maximum air infiltration rate shall not exceed four air changes per hour at 50 pascals pressure difference.
- c. The compliance rating shall be performed by a person authorized by AHFC.
- d. Compliance with sections 1105.4 is not required.



Third Party Review Audit Program

- The Unacknowledged Savings to Consumers Based Upon Division of Insurance filings for

ISO BCEGS ratings:

- ■ = 2015 Residential BCEGS Score
- ■ = 2015 Commercial BCEGS Score

BCEG	Windstorm or Hail	Earthquake
1	3%	10%
2	3%	10%
3	3%	10%
4	2%	6%
5	2%	6%
6	2%	6%
7	2%	6%
8	1%	2%
9	1%	2%
10	0%	0%
Ungraded	0%	0%

Third Party Review Audit Program

- The Unacknowledged Quality Deficiencies In Last Three Weeks:
 - Repeated approval of plans lacking sufficient detail to demonstrate code compliance.
 - A third-party reviewer did both design work and review while fraudulently representing that the designer (who is currently in an assisted care facility) did the design work.
 - A third-party reviewer approved a flat roof design where code compliant ventilation had not been designed/demonstrated. The inspector will not be aware of the issue until the building is completely framed at which point it can be very costly correct.
 - Repeated instances of structural reviewers acting as design engineers to develop solutions to problems missed in review stage.
- Ongoing:
 - A third- party structural reviewer approved a foundation repair design to an earthquake damaged home where the design lacked code required load paths. The repairs begun over a year ago are still on hold as Reviewer and Engineer cannot demonstrate compliance after inspector noted discrepancy.

Reducing Homeowner & First Responder Risk

- Sheetrocking necessary for entire basement floor– not just over mechanical room to protect egressing occupants and entering responders
- Overwhelming evidence referenced by AHBA is fires are human-caused
- Majority of IRC Committee does not run into burning buildings to save occupants
- Majority of IRC Committee has no fire investigation training and experience
- Photo from firefighter fatality report



Conclusion

- AO 2020-85 will update Title 23 to reflect best industry practices as determined by a broad spectrum of industry and code officials
- Per FEMA, compliance with the latest building codes provides an \$11:\$1 return on investment
- Questions?