## **MOA Snow Removal Notice**

## Issued November 20, 2023

- Last winter Anchorage experienced several wood truss failures.
  - o A few of these failures resulted in catastrophic roof collapse.
  - o In all cases but one, the weight of snow being supported was less than the design value of 40 pounds per square foot.
  - The truss failures occurred in commercial construction built prior to 1990.
  - o The trusses were constructed from wood with metal gang nail plates.
  - Top chord bearing parallel cord trusses demand extra attention due to a potential design flaw that can result in a cross-grain tension (shear) type of failure in the top chord near the bearing point.
  - Bottom chord bearing trusses have also failed, including a pitched-roof type of truss.
- If you own a building falling within these parameters, we ask that you start removing the snow/ice from the roof. Reasons:
  - Anchorage has received an exceptional amount of snow with an exceptionally high moisture content.
  - We estimate that typical roof snow loads in Anchorage are already at 30% to 60% of the total design snow load of 40 pounds per square foot, depending on location, melting, etc.
  - Given our weather seems to follow patterns, it is likely we will continue to see above average precipitation this winter. We should expect the roof snow to continue to accumulate.
  - Time matters. When subjecting wood construction to large loads, duration matters.
    The longer wood is subjected to extreme stress, the greater the chance of failure.
- If you hire someone to remove snow, make sure they are licensed, bonded and insured.
- Given the large number of buildings in Anchorage and limited snow removal resources, we ask that snow removal contractors prioritize buildings described in this guidance.
- It is important that snow is thoughtfully removed so as not to create piles that can overload portions of the roof.
- For a more information, see Handout AG.30 Snow Removal Guidance:
  - https://www.muni.org/Departments/OCPD/developmentservices/pages/default.aspx
- Also see Draft Policy S.12 Wood Truss Roof Framing Due Diligence Investigation:
  - https://www.muni.org/Departments/OCPD/developmentservices/Documents/Draft%20Policy%20S.12%20Wood%20Roof%20Trusses 1.pdf
- Further guidance will be provided as warranted.