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**Memorandum**

To: Planning and Environmental Commission

From: Paul Cada, Wildland Program Administrator

Date: August 21, 2019

Subject: Proposed Amendments to the Building and Design Standards to incorporate ignition resistant materials and methods

**I. Background**

Over the past 16 years the Town of Vail and Eagle County have acknowledged the potential threat that wildfire presents to the safety, health and vitality of the community. In addition, there is a growing recognition that catastrophic wildfire is a significant threat to the environment and specifically to Gore Creek. Mitigating the impacts of wildfire is also a key sustainability strategy, as the impacts of wildfires upon communities across the west have dramatically increased over the last two decades. Concurrent with the growth of the fire problem in the Wildland Urban Interface has been the evolution of the body of knowledge regarding wildland fires and structural ignitability. The proposed code amendments are informed by this science which has created an understanding of the role of embers in igniting buildings. Due to the ability of embers to travel up to a mile ahead of a fire, we now know that all buildings in the Town of Vail are at risk of being impacted by a wildland fire.

To address the threat of wildland fire Eagle County adopted wildfire specific building regulations in 2003. These building regulations have been directly attributed to structural survivability during the 2018 Lake Christine Fire. In 2016 the Town of Vail amended several sections of its code and adopted new design guidelines to start to address the wildland fire threat within the Town of Vail, the primary impact of this was the implementation of an advisory landscape plan reviews to determine compliance with ignition resistant guidelines. In the summer of 2018 staff identified the need to address structural ignitability and landscape design in all new construction.

**II. Current Situation**

It has become well accepted by the community that Vail is located within an ecosystem that is prone and even depends on wildfire to maintain healthy ecological function. It is not a matter of if, but when a large wildfire will occur in or near the community. Like the natural environment we all enjoy, the town must adapt to living with wildfire. In 2015 Town Council was presented with the concept of creating a "Fire Adapted Community" within Vail. The strategic plan of "Fire Adapted Vail" includes the three pillars of the

national cohesive strategy: Resilient Landscapes, Fire Adapted Communities and Rapid and Effective Response. These have been developed into several highly effective and well received programs within the town including: large scale fuels reduction projects, community slash removal, town wide home hazard evaluations, evacuation preparedness and significant improvements in wildfire emergency response. This multi-pronged approach when paired with improved building practices will set the community on a trajectory for greater resiliency to a wildfire event.

Vail Fire and Emergency Services have been working with staff from Community Development over the past 12 months to develop proposed amendments to the town code to incorporate wildfire mitigation best practices. This has included 7 meetings with Board of Appeals, 3 meetings with Design Review Board and collaboration with staff from the building, environmental and planning departments.

The result of this collaboration are code changes that are consistent with existing building practices and aesthetic standards as well as an approach to landscaping that will maintain the character of Vail while decreasing the need for water and pesticides, resulting in a more sustainable community. This collaboration has also informed a revision of the Vail Fire Resistant Landscaping Guide that provides guidance on creating landscapes that are aesthetically pleasing, consistent with best practices to protect Gore Creek and reduce the risk of a wildfire igniting homes within our community. The 2018 version of the ICC International Wildland Urban Interface code was used as a model and modifications were made to incorporate lessons learned from other jurisdictions that had adopted similar codes. The intention of the code amendments is to increase community safety while maintaining the character of the community.

In the development of the proposed code amendments Vail Fire finds:

1. Adopting these code amendments will substantially reduce the potential for catastrophic loss of property due to wildfire, providing for an overall safer community.
2. These code amendments are consistent with current building and landscaping practices within the Town and surrounding Unincorporated Eagle County.
  - a. Code amendments as proposed will codify current design and building practices prescribed in the current design guidelines.
3. Adoption of these code amendments will not cause substantial added time or expense to the development of a property.
  - a. The proposed code amendments will only apply to new construction and additions of 500 square feet gross floor area or greater.
  - b. A substantial number of products, including many currently in use within the Town, are available to meet the various requirements of the code.
  - c. Local builders are required to meet many of the same requirements when completing projects in unincorporated Eagle County to comply with the Eagle County Wildfire Mitigation Codes.
4. The code has been amended to address the unique building and environmental challenges of the area.

5. The proposed changes support the Town of Vail Council Action Plan Priority to “Institute measures to best mitigate wildfire danger”.
6. Results of the 2016 and 2018 community survey show that more than 85% of respondents support design standards that facilitate the creation of defensible space and increasing community safety.
  - a. Support increased from 80% to 85% from 2016 to 2018

The code amendments provide substantial choices in building material and design to meet the current Town design guidelines. The use of ignition resistant building materials is currently strongly encouraged in the design guidelines and most projects currently underway within the Town are complying with the proposed code amendments. The most substantial change from the Town’s current practices and the proposed adoption of the code would be the need to inspect landscape installations to ensure that they are installed as designed.

### **III. Staff Recommendation**

1. Review the amendments to sections 12-3-7 and Title 14 and provide a recommendation for adoption to Town Council.