

# The science behind Zone 0 and key contributors to home loss

Board of Forestry and Fire Protection Workshop

Changes to California's Defensible Space Codes: Implementing Zone Zero











:00





**Wildfire Research**  
Near-Building Noncombustible Zone  
December 2018

Faraz Hedayati, Ph.D.  
Carolyn Stansell  
Daniel Gorham, P.E.  
Stephen L. Quarles, Ph.D.

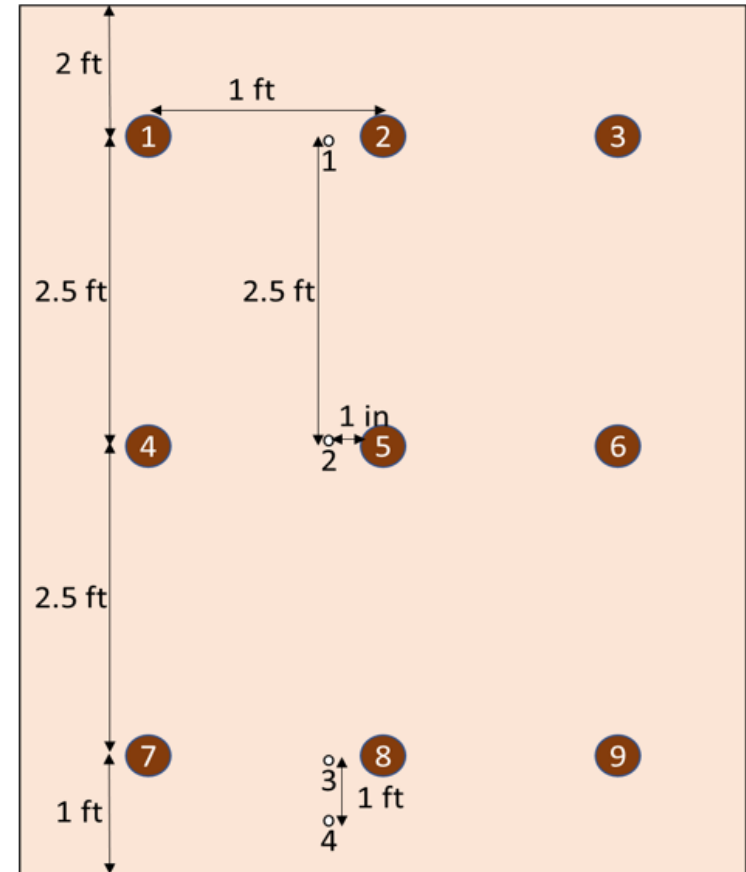


Project lead researcher:  
Dr Faraz Hedayati





# Experimental Setup



# Fire source

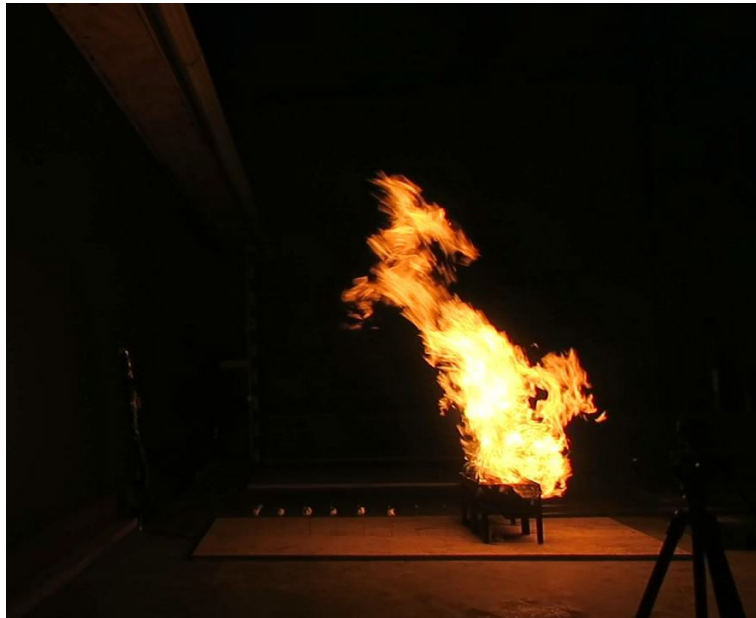
Natural gas burner,  
Heat release rate (HRR)  
80 kW for 5 minutes

Wooden cribs





# Flame tilt



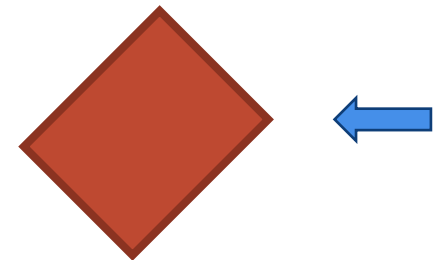
Wind speed: low



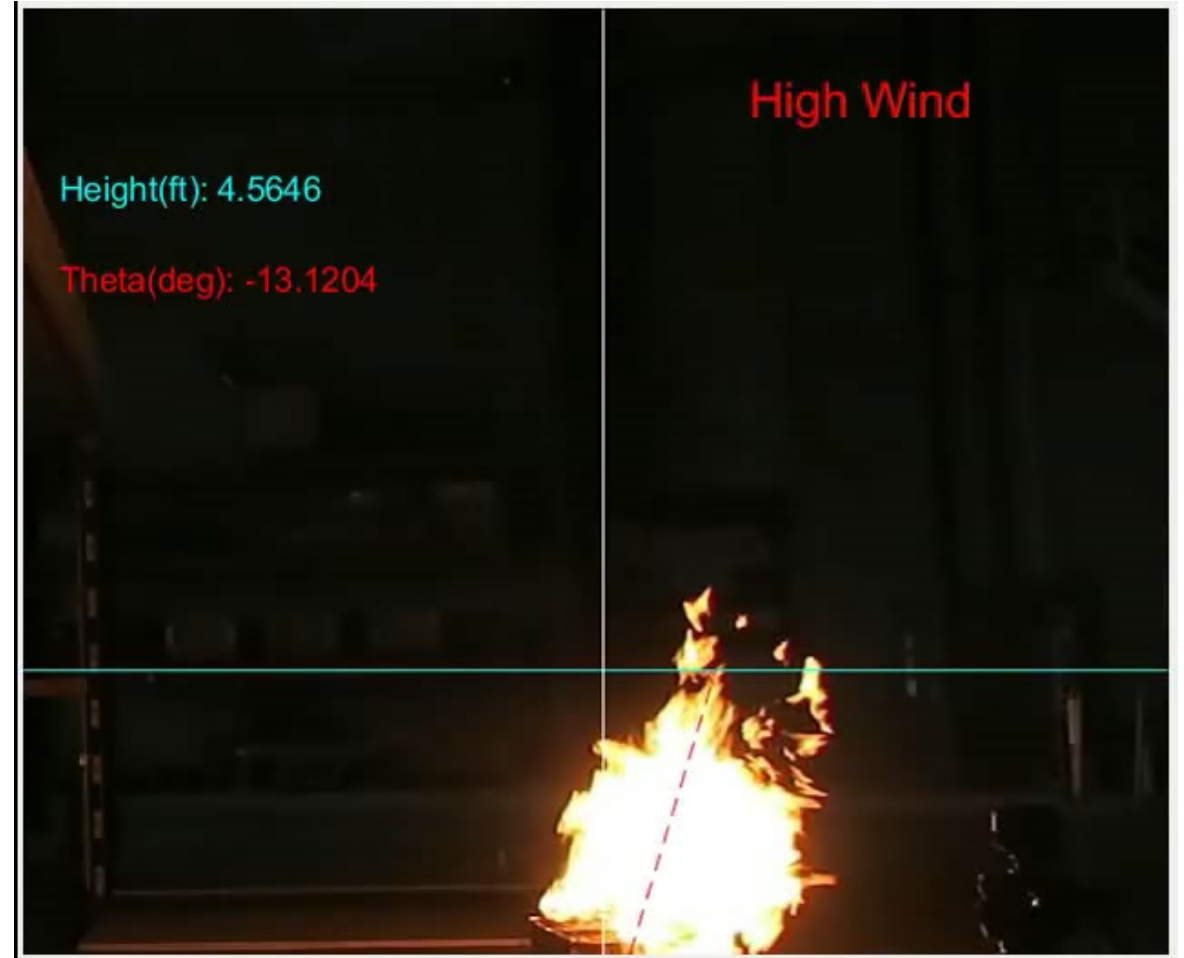
Wind speed: high



Wind speed: medium

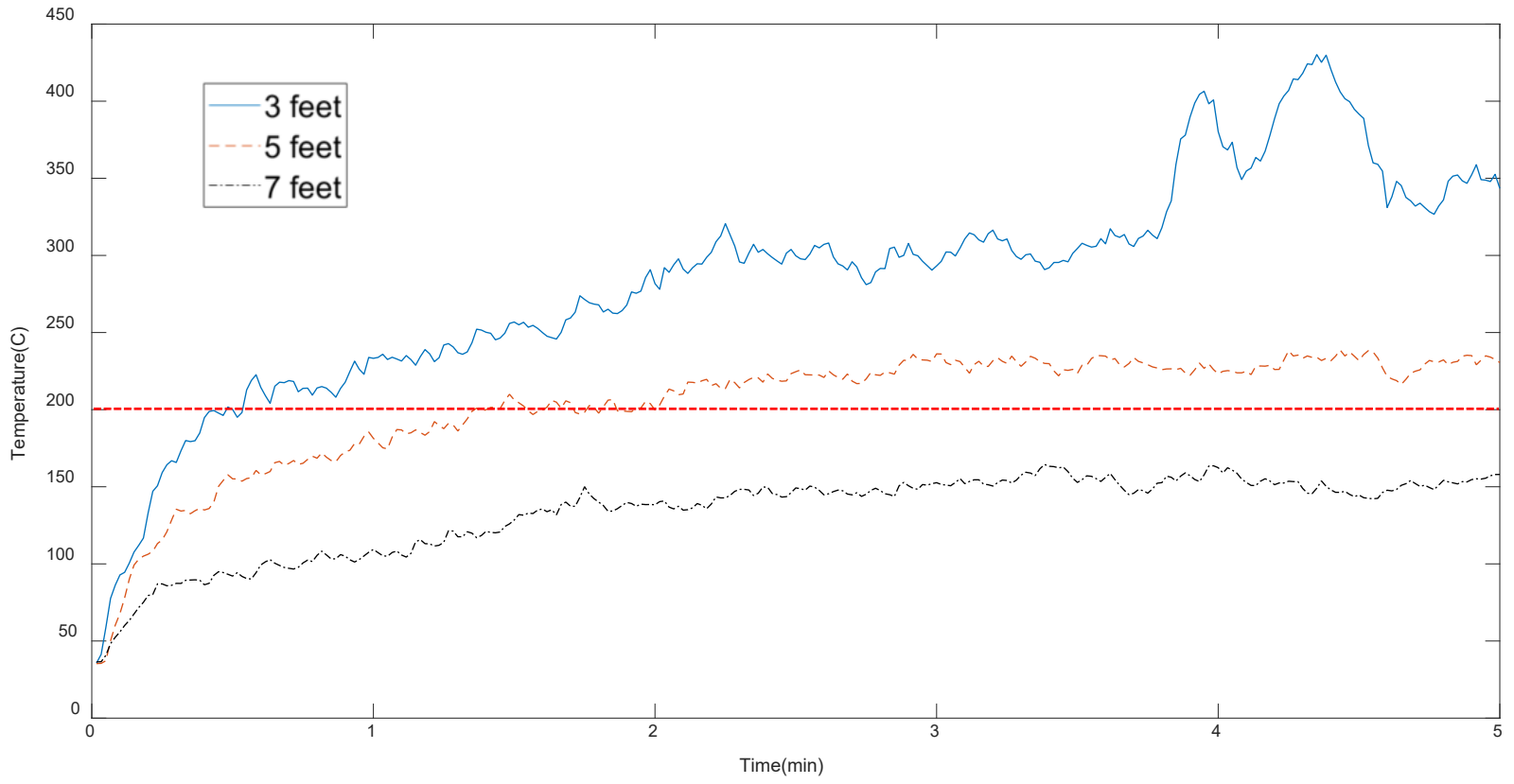


# Fluctuating (gusty) wind effects

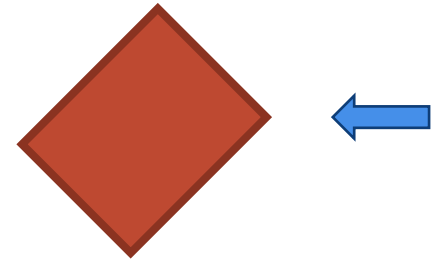


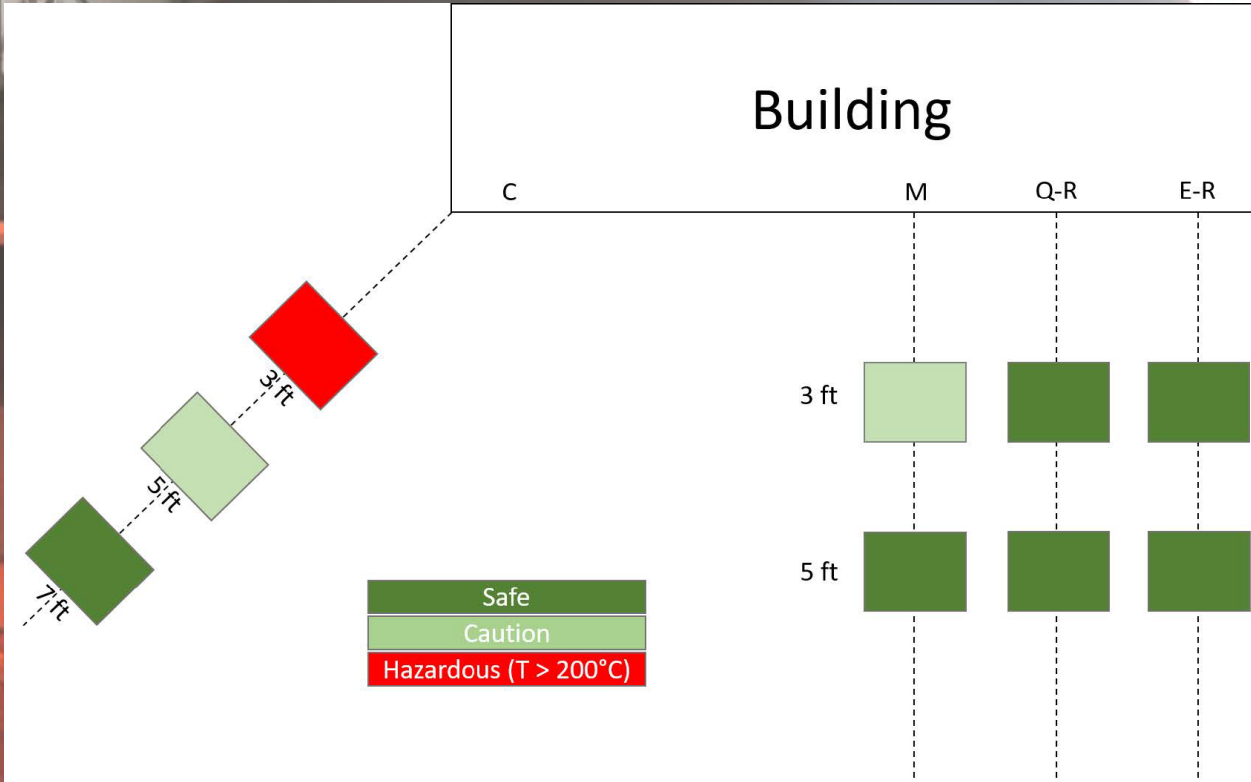


# Wall surface temperature



Wind speed: low





<https://ibhs.org/wildfire/near-building-noncombustible-zone/>





# Attached deck



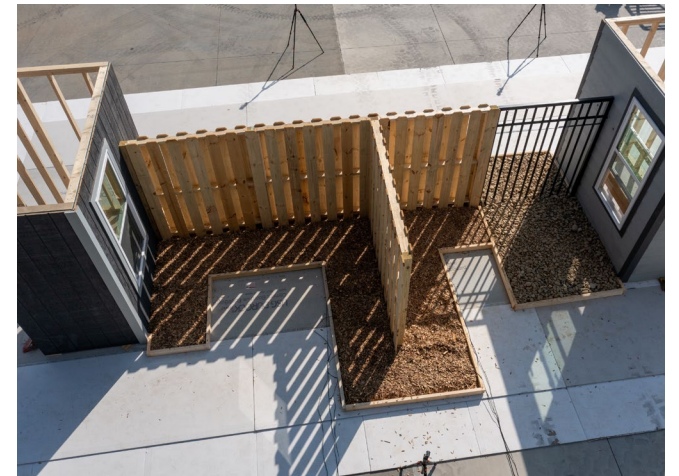
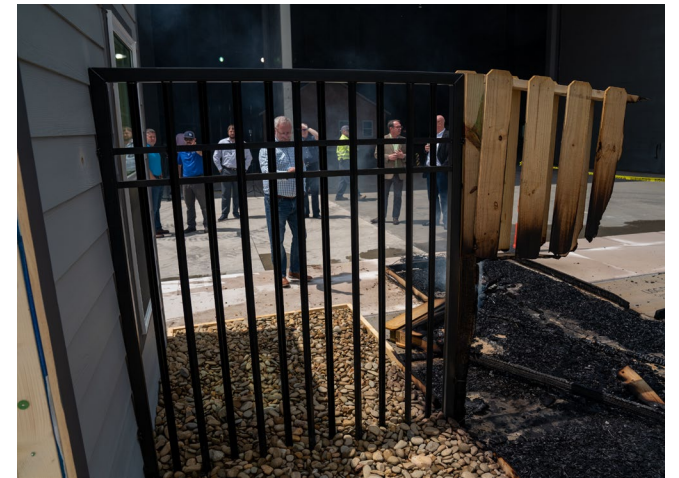
<https://ibhs.org/wildfire/evaluation-of-deck-testing-methods/>  
<https://ibhs.org/wildfire/ignition-potential-of-decks-subjected-to-an-ember-exposure/>





# Attached fence

---





# Combustibles (fuel) in Zone 0

---

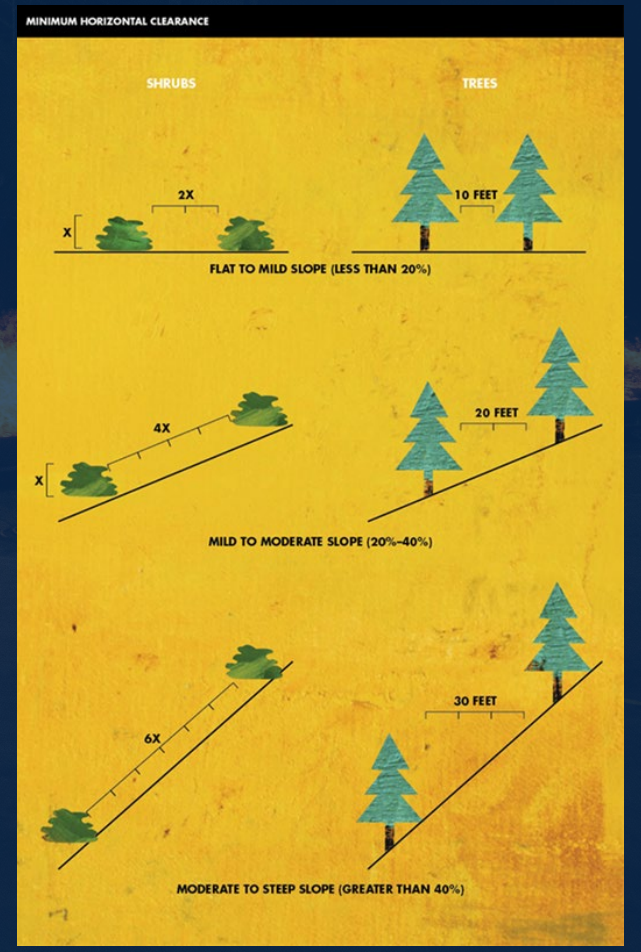








# Vegetation Separation







Daniel J. Gorham, P.E.

[DGorham@ibhs.org](mailto:DGorham@ibhs.org)



DanielJGorham

