WILDFIRE PREPARED
A PROGRAM OF IBHS

IBHS Research
Mitigations for a Wildfire Prepared Home

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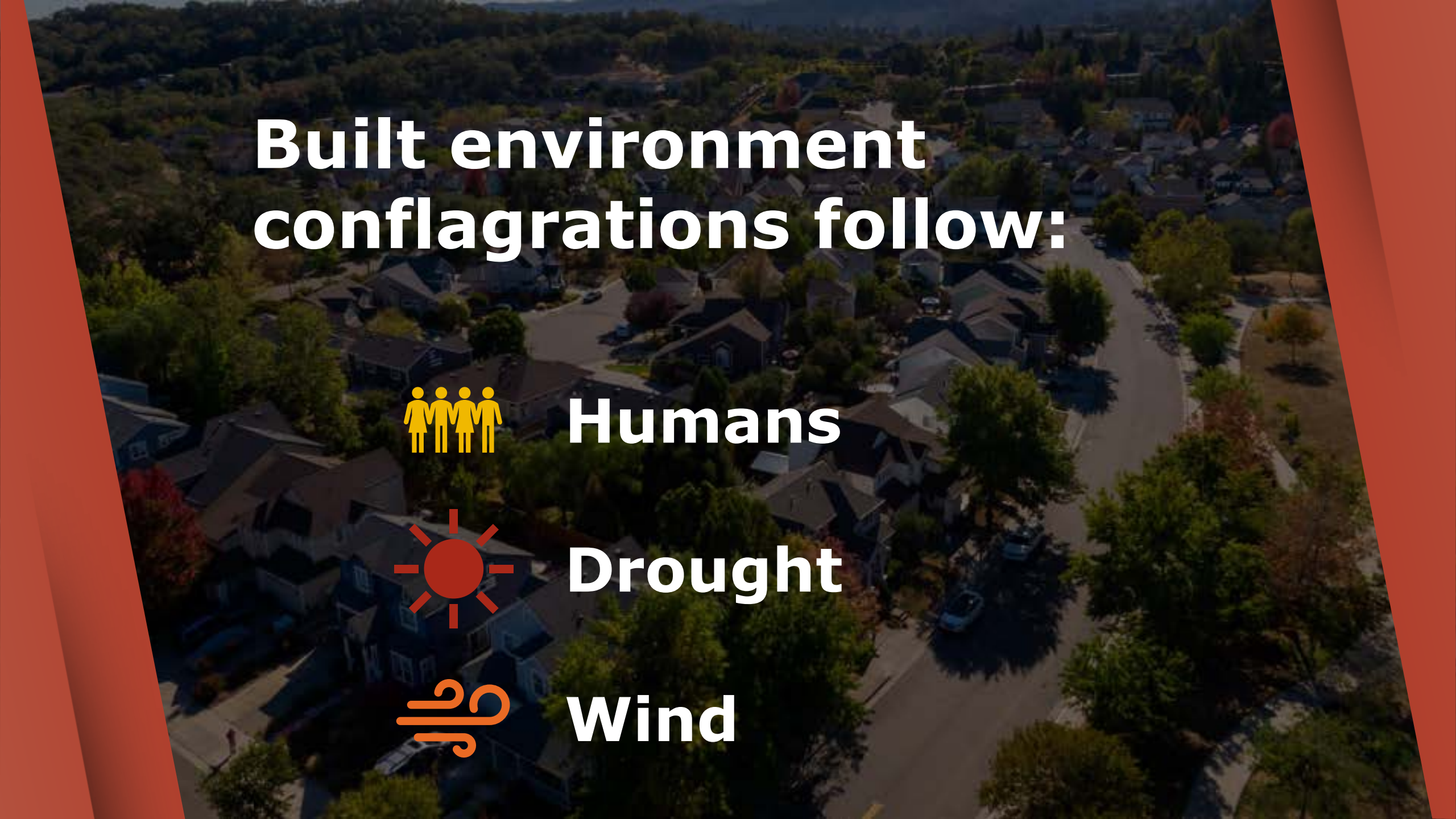
WHY?

Severe weather disrupts lives, displaces families, and drives financial loss. IBHS delivers top-tier science and translates it into action so we can prevent avoidable suffering, strengthen our homes and businesses, inform the insurance industry and support thriving communities.

A COLLISION COURSE:
WILDFIRE & BUILT ENVIRONMENT CONFLAGRATIONS



Built environment conflagrations follow:

- Humans
- Drought
- Wind

WIND:

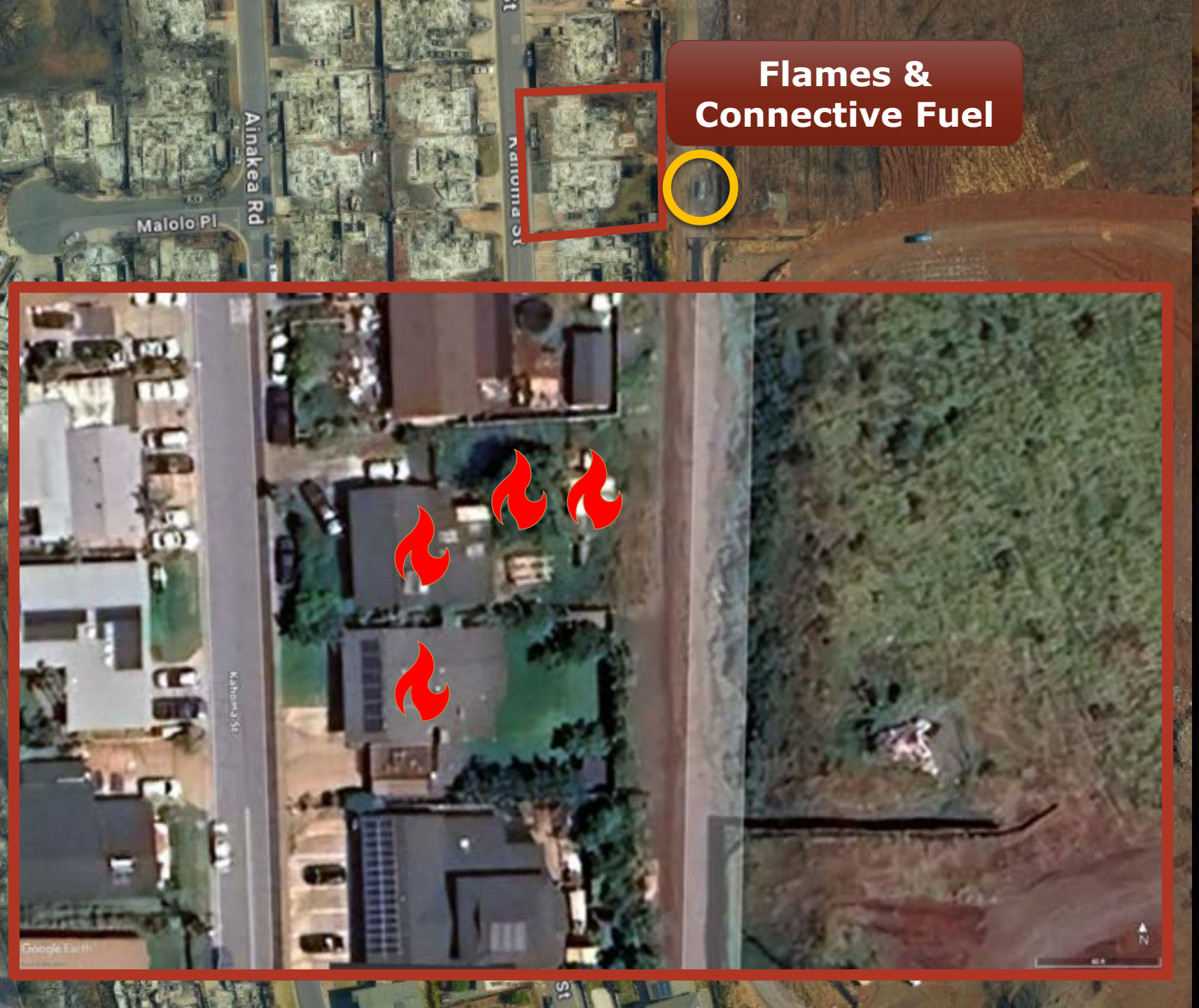
The single biggest factor influencing extreme fire behavior.

CA

Table 2. Contributing Factors

Natural Environment	The Built Environment	Humans
Topography	Structure density	Preparedness and mitigation
Climatology	Building materials	Ignition sources
Local Weather	Connective fuels	Fire service intervention
Wildland Fuels	Infrastructure	

Video by FOX 4 Dallas-Fort Worth


Flames &
Connective Fuel
Ainakea Rd
Malolo Pl

HI

Michel Chamberland/Tuesday
Fort McMurray, Canada
CANADA
RESIDENTS FLEE CATASTROPHIC BLAZE IN CANADA
CNN
8:35 PM CET
CNN NEWSROOM
2016/05/04
02:45:05
Always

Severe Wildfire Conditions
WEATHER
FUEL
TOPOGRAPHY
1. Ignition Source
2. Extreme fire behavior
High intensity, fast growth
3. Residential fires
Ignitable structures, proximity,
many ignitions
4. Fire protection resources
Number of ignitions +
environment overwhelms resources
5. Fire protection effectiveness
Reduced or nonexistent
6. Suburban Conflagration Catastrophe
Adapted from Cohen (2008)

COMMUNITY WILDFIRE RESILIENCE

EXISTING FACTORS

- **Environmental Conditions**
  - Topography
  - Climatology
  - Weather
- **Surrounding Vegetation**
  - Wildland Fuels
  - Urban Fuels
- **Community Structural Characteristics**
  - Density
  - Features and materials
- **Supporting Infrastructure**

CONTROLLABLE FACTORS

- **Fuel breaks**
- **Parcel-level Mitigation Actions**
  - Defensible Space
  - Home Hardening
- **Fuels within the Community**
  - Fuel Breaks
  - Reducing Connective Fuels
- **Community Regulations**
  - Building Codes/Ordinances
  - HOA Covenants
- **Preparedness Programs**
  - Grant Programs

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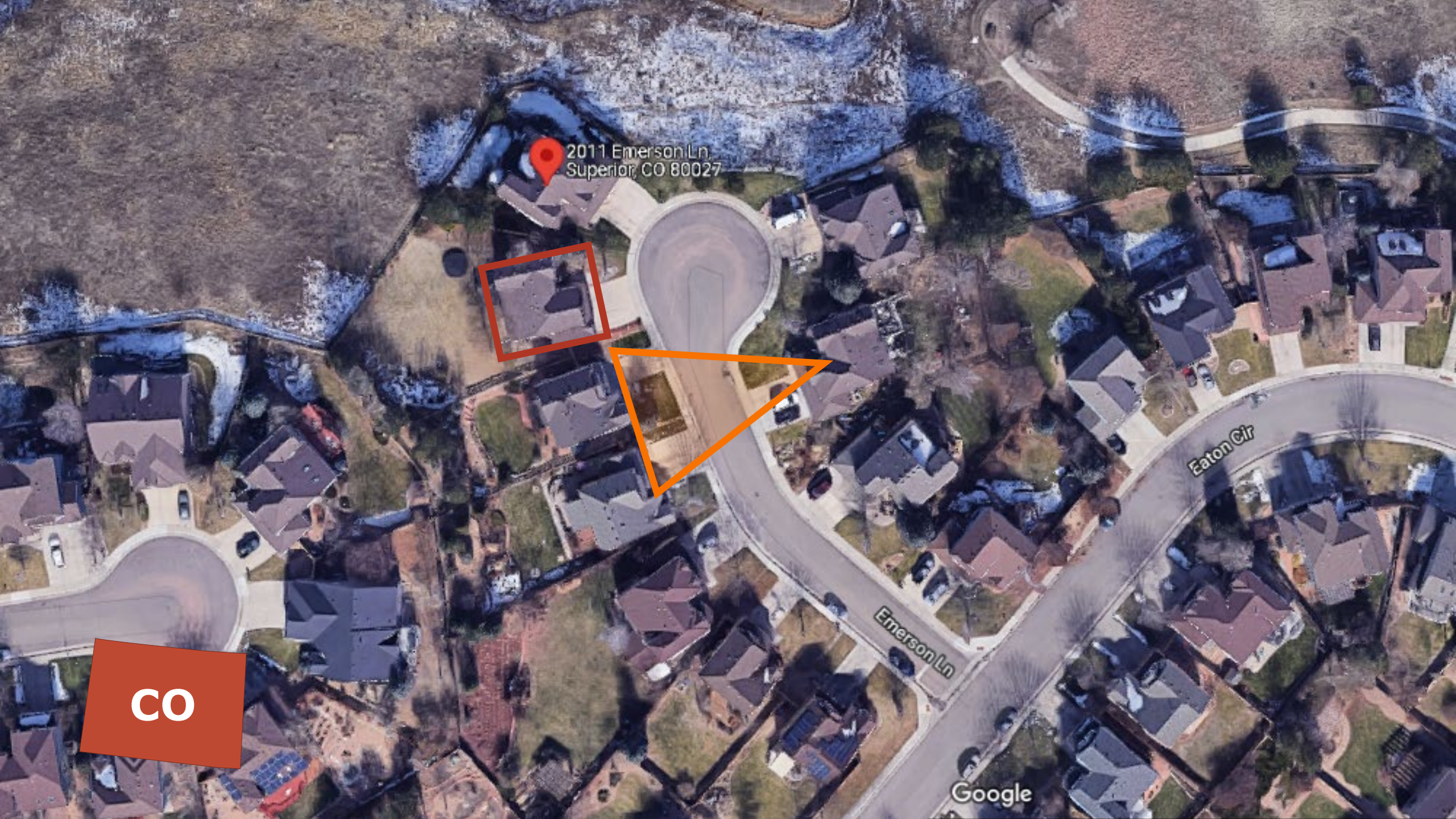
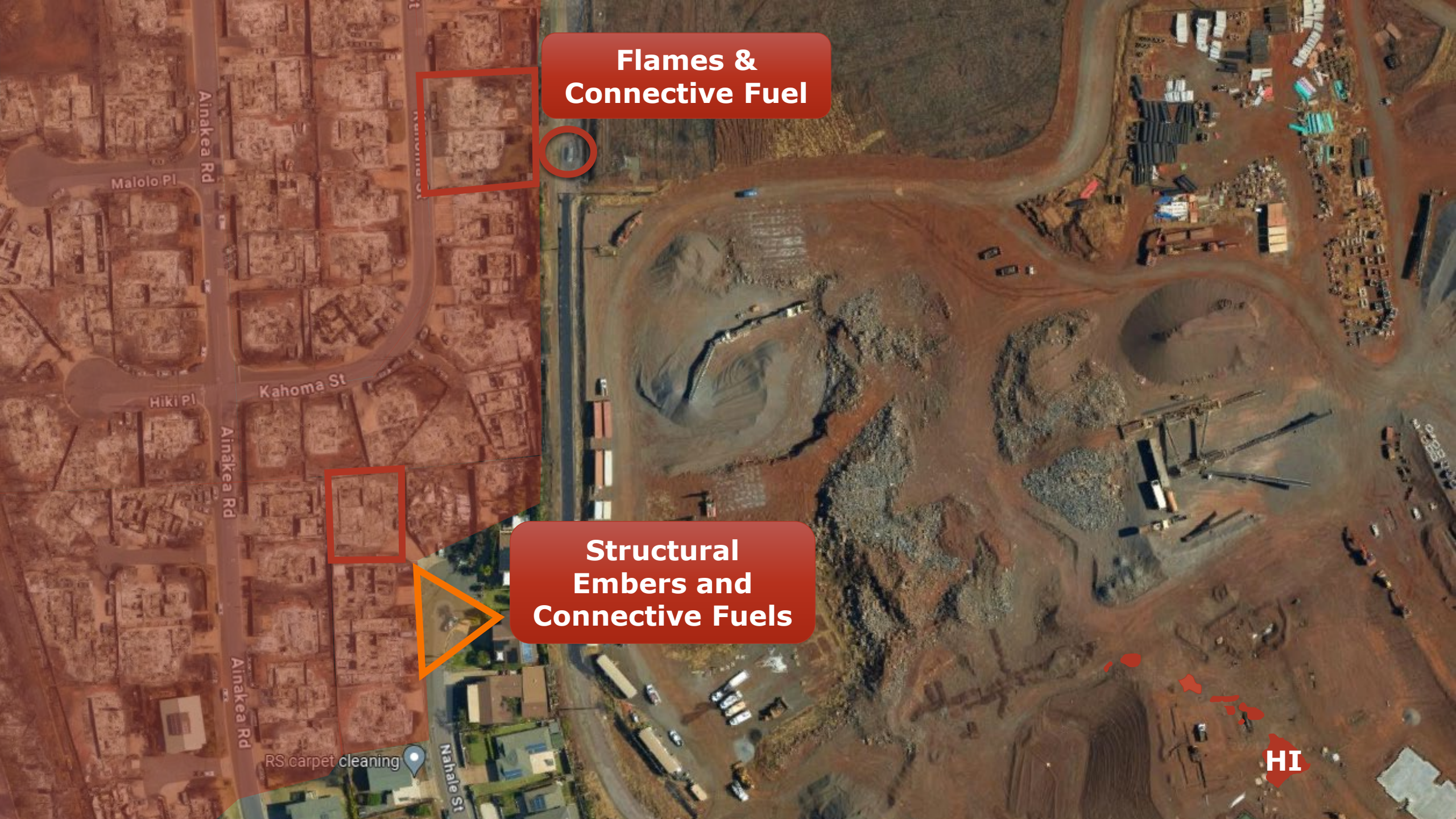

2011 Emerson Ln,
Superior, CO 80027
Emerson Ln
Eaton Cir
Google
CO

Dec 30, 2021 6:29:22 PM MST
Video from Holly Browarsky,
Emerson Lane
KUNA
CO


Flames &
Connective Fuel
Structural
Embers and
Connective Fuels
Malolo Pl
Ainakea Rd
Hiki Pl
Kahoma St
Ainakea Rd
Ainakea Rd
RS carpet cleaning
Nahale St
HI

WYZE
HI
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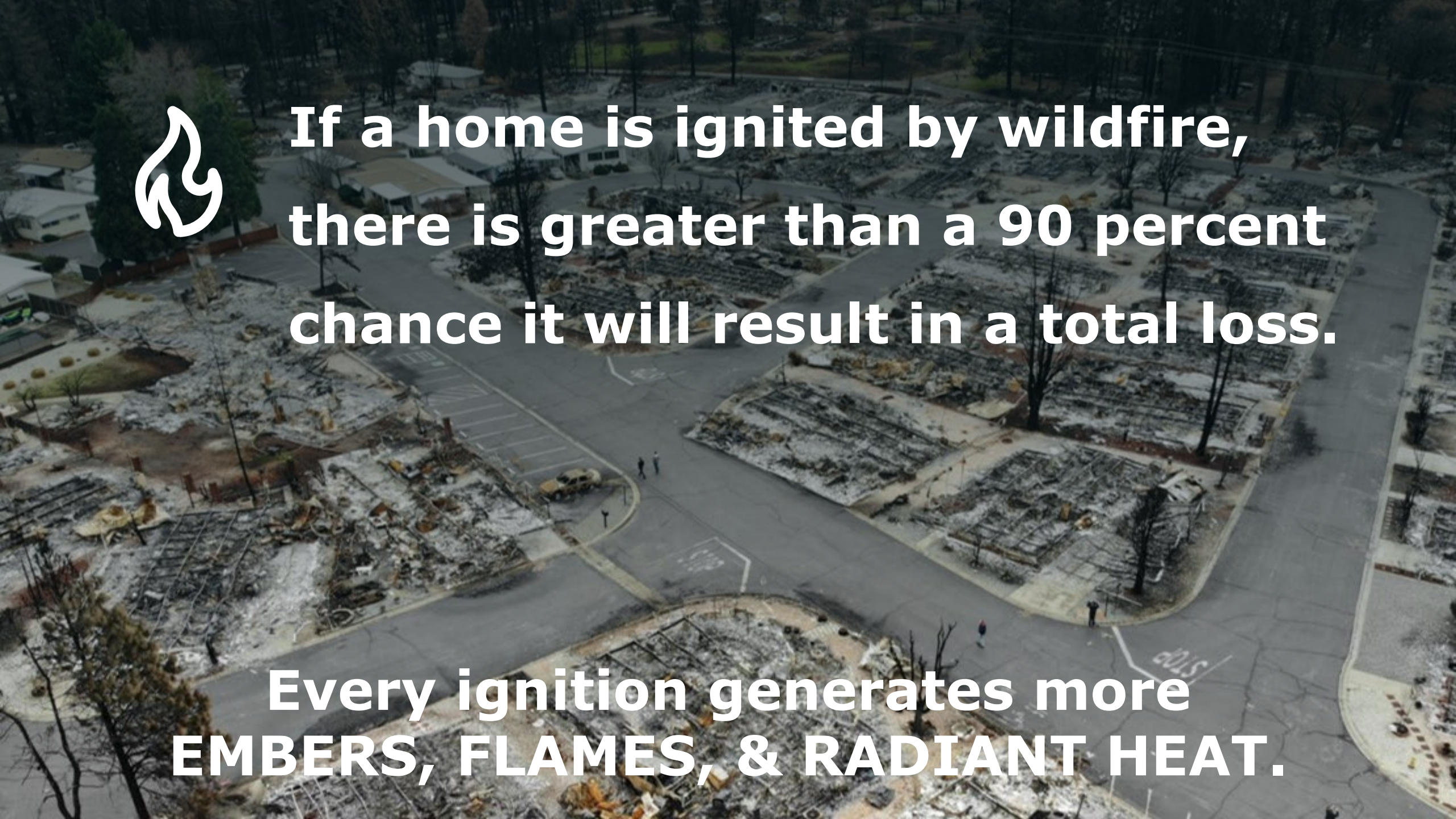
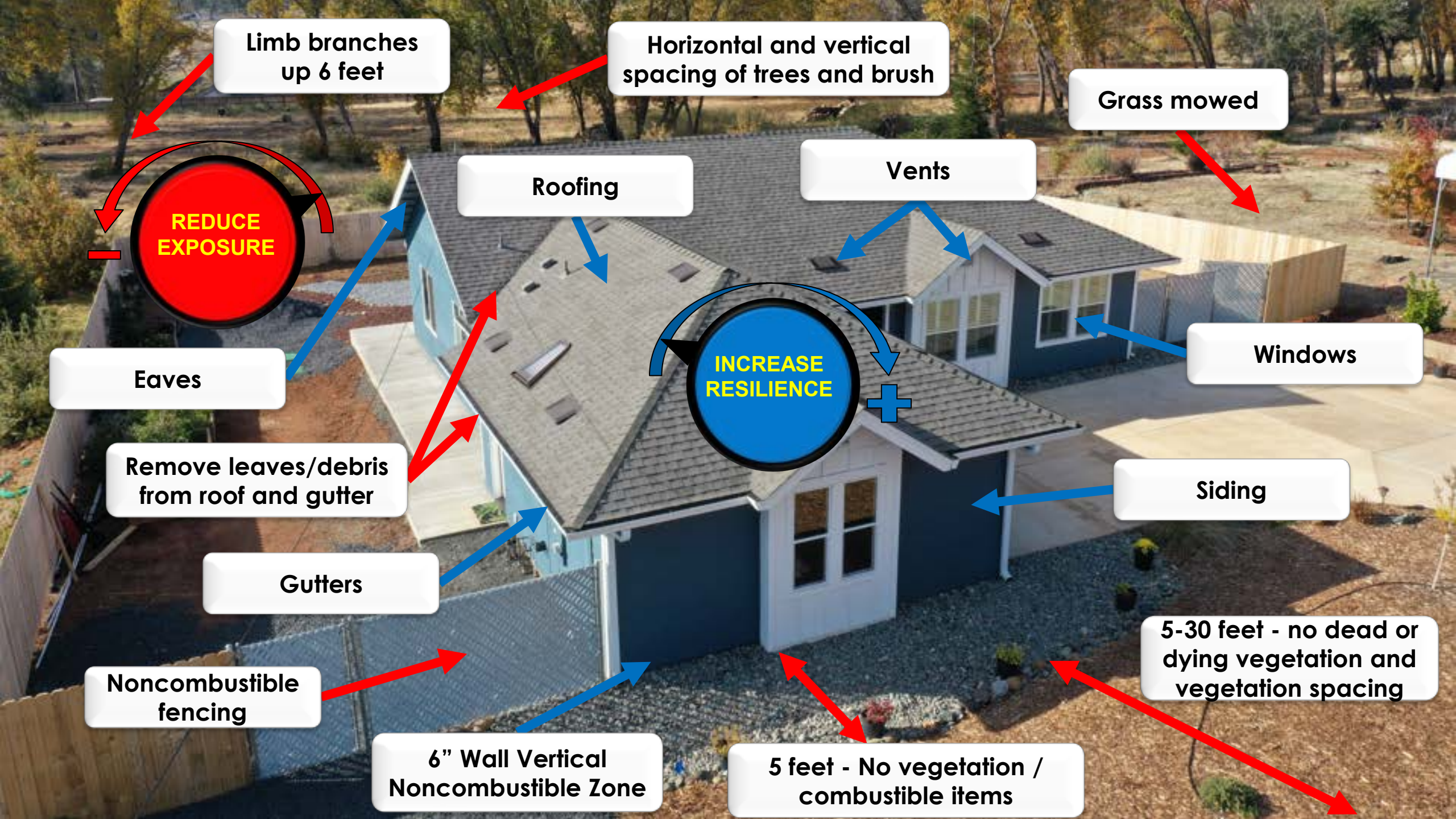
HI

Embers are the leading cause
of home ignitions.



If a home is ignited by wildfire, there is greater than a 90 percent chance it will result in a total loss.

Every ignition generates more EMBERS, FLAMES, & RADIANT HEAT.


Limb branches up 6 feet
Horizontal and vertical spacing of trees and brush
Grass mowed
REDUCE EXPOSURE
Roofing
Vents
Eaves
INCREASE RESILIENCE
Windows
Remove leaves/debris from roof and gutter
Siding
Gutters
Noncombustible fencing
6” Wall Vertical Noncombustible Zone
5 feet - No vegetation / combustible items
5-30 feet - no dead or dying vegetation and vegetation spacing

ROOFS

- Class A Roof material
- Maintained roof clear of debris

GUTTERS

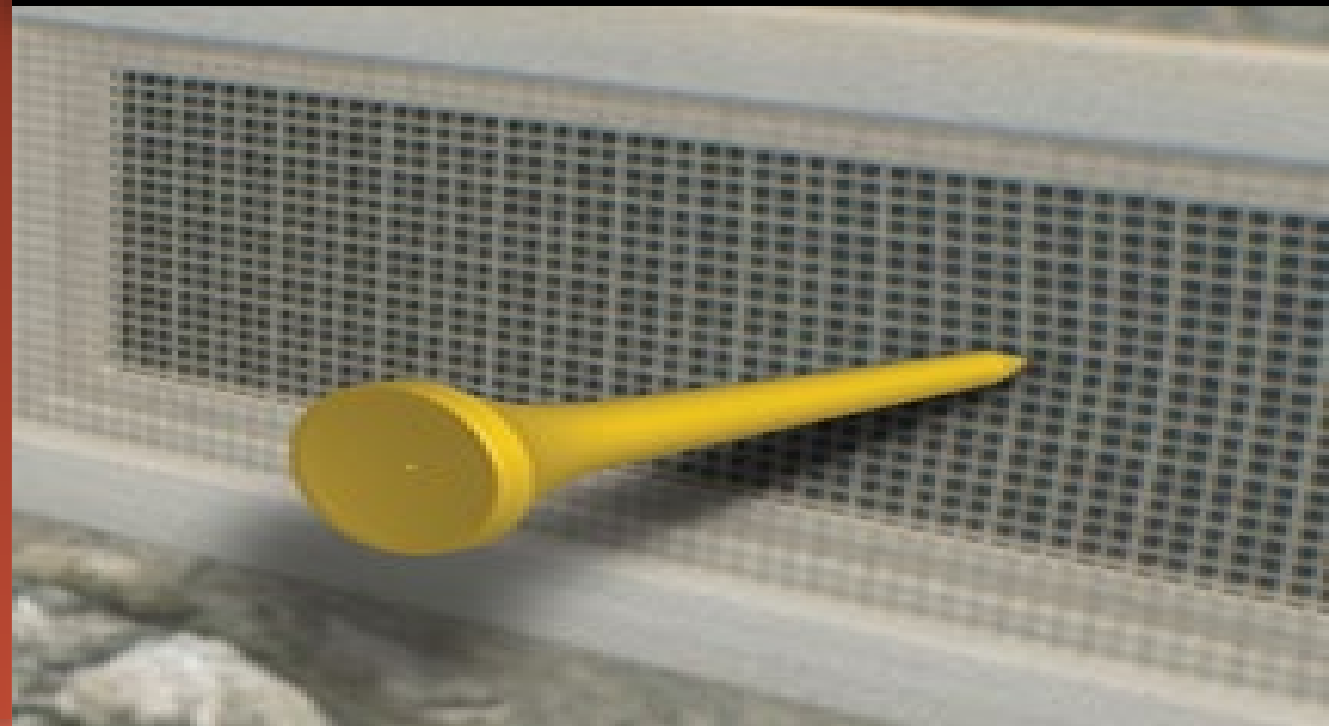
- Noncombustible gutter, downspouts, and cover
- Gutters shield the fascia boards
- Maintain inside gutters and on top of gutter covers clear of debris

EAVES

- **Enclose/Soffit eaves with noncombustible materials**

VENTS

- **Covered with 1/8-inch corrosion resistant metal mesh**
- **Ember- and flame-resistant vents**
- **Metal louvered or flapped dryer vent**



SIDING

- **Noncombustible siding**

6-INCHES Noncombustible

- **6” vertical noncombustible material at the base of the wall at the intersection with the ground**

WINDOWS

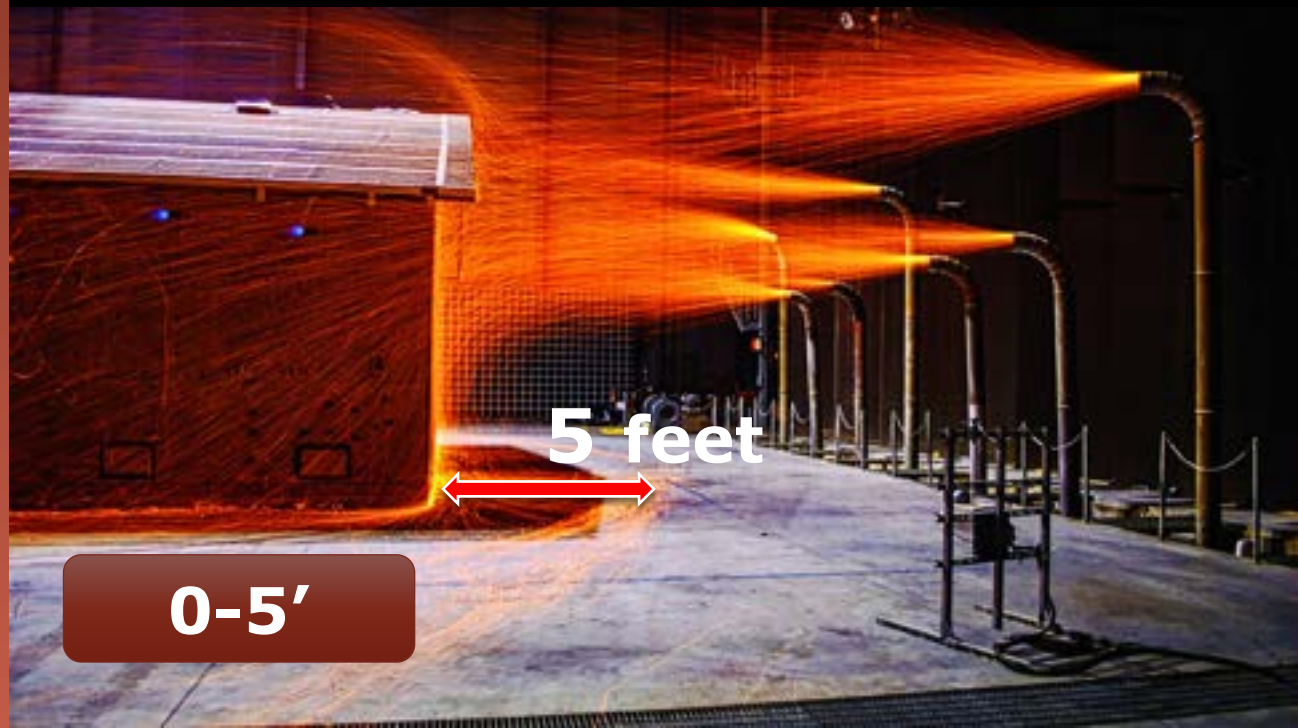
- **Multipaned windows with at least two tempered panes**

DECKS

- Clear & maintain on top of and under decks
- Enclose low-elevation decks with 1/8” metal mesh
- 0-5’ includes decks
- Noncombustible assembly

0-5 Foot Noncombustible

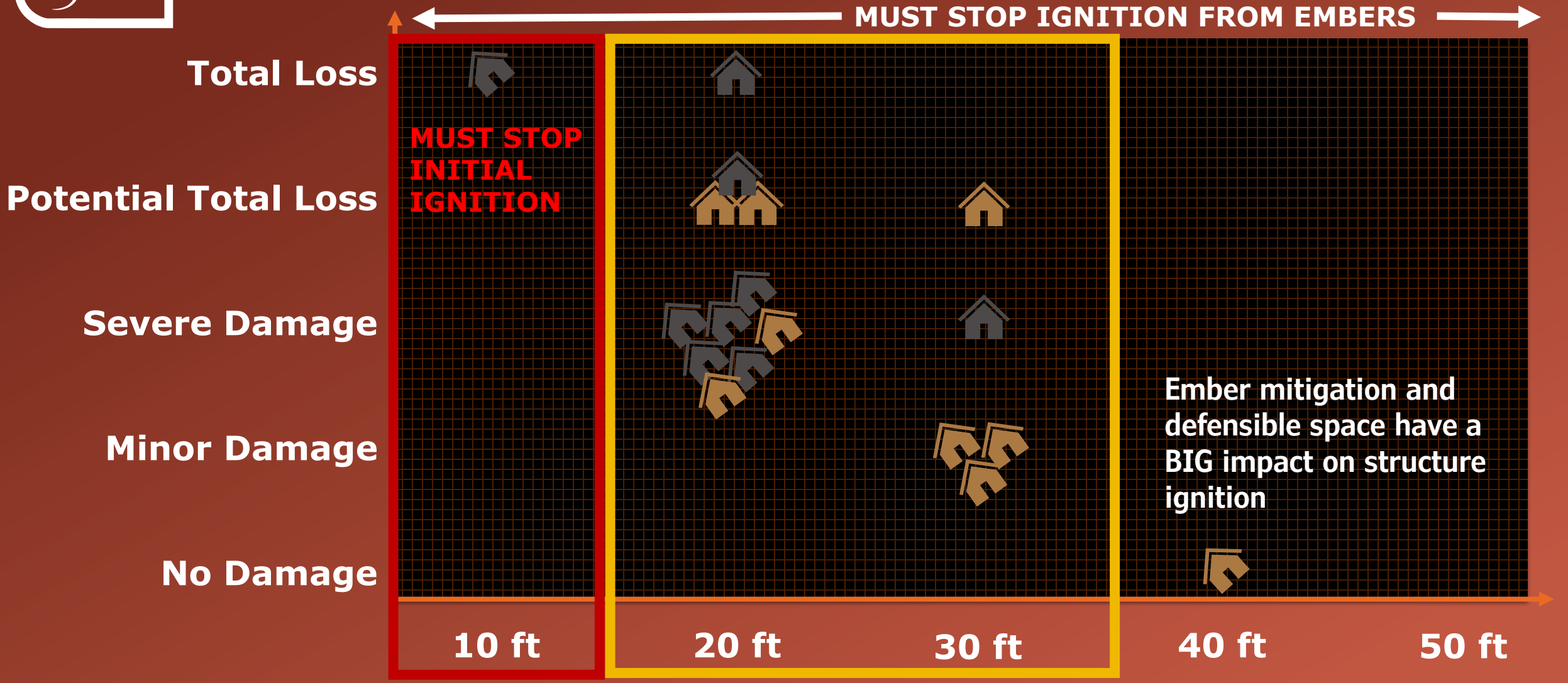
- Remove all vegetation
- No overhanging vegetation
- Remove all combustible mulch
- Replace combustible fencing
- Keep clear of debris
- No sheds



OUTBUILDINGS

- Move 30’ from home
- Apply same mitigations as the home
- Must have their own 0–5-foot noncombustible clearance

OUTBUILDINGS



Wood Shed

Metal Shed

Shed Size – 12’ x 24’ x 11’

6”

6”

ROOF

- ✓ Choose a Class A fire-rated roof maintained clear of debris
- ✓ Choose noncombustible gutters & downspouts

BUILDING FEATURES

- ✓ Install ember- & flame-resistant vents
- ✓ Ensure 6-inch vertical noncombustible clearance at base of wall

WILDFIRE PREPARED HOME + PLUS

ADDITIONAL MITIGATION

- ✓ Remove back-to-back fencing
- ✓ Eliminate combustible siding
- ✓ Enclose eaves
- ✓ Enclose under bay windows
- ✓ Upgrade to a wildfire-resistant deck
- ✓ Upgrade windows & doors
- ✓ Cover gutters
- ✓ Move outbuildings at least 30 feet away

DEFENSIBLE SPACE

- ✓ Create & maintain the home ignition zone (0-5 ft) including the removal of branches that overhang this area
- ✓ Clear & maintain the underdeck area; enclose low-elevation decks
- ✓ Maintain yard clear of debris
- ✓ Replace combustible fencing within 5 ft of the home

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Designation Process

Step-by-step checklist on How to Prepare Your Home for Evaluation

Initial Process	Prep your home with the How-To Checklist	Submit eligibility photos and apply	IBHS QA	Evaluation	IBHS QA & Designation
Ongoing Process	Year 1 Annual Landscape Review	Year 2 Annual Landscape Review			
Re-Designation	Year 3 Re-Designation				

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