

Creating Strong Homes in the Face of Floods, Wildfires, and More

Arizona Resiliency and Mitigation Council
Wednesday, April 9, 2025

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President and CEO



Connect on LinkedIn



Our mission

We promote life safety, property protection and resiliency by empowering the community with knowledge and resources for strengthening homes and safeguarding families from natural and manmade disasters.

Our vision

A world where people value, demand, and build strong homes and resilient communities.

Core Values



Innovation

Designing and developing effective and easy-to-use tools and techniques to foster mitigation behavior change.



Integrity

Designing and developing effective and easy-to-use tools and techniques to foster mitigation behavior change.



Collaboration

Designing and developing effective and easy-to-use tools and techniques to foster mitigation behavior change.

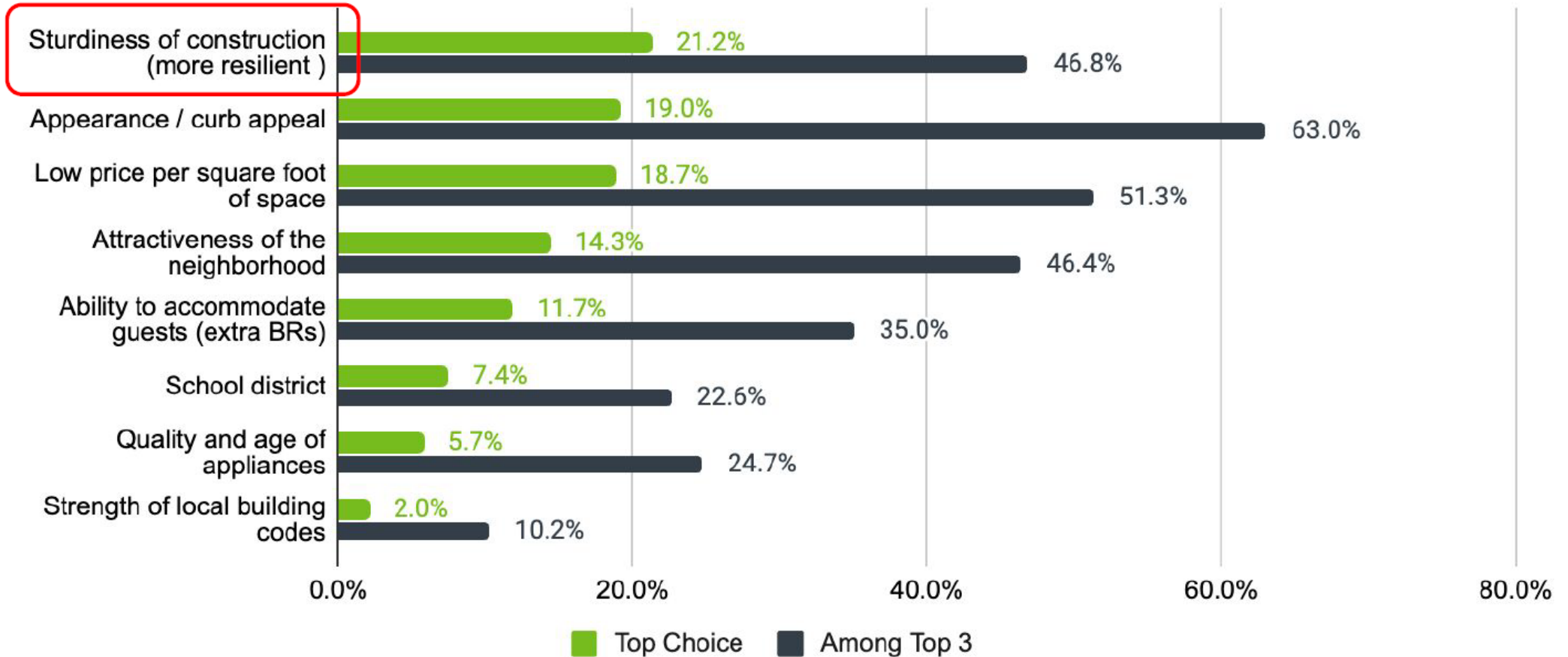


- 1998 – *Volunteer committee of emergency managers, insurers, meteorologists, risk communicators, and organizations dedicated to strengthening homes and safeguarding families*
- Today – *Nonprofit coalition of more than 100 academic, corporate, nonprofit, and government partners*



Homebuyers seek **resilience, appearance, low cost** and **neighborhood**

Qualities people seek when buying a home



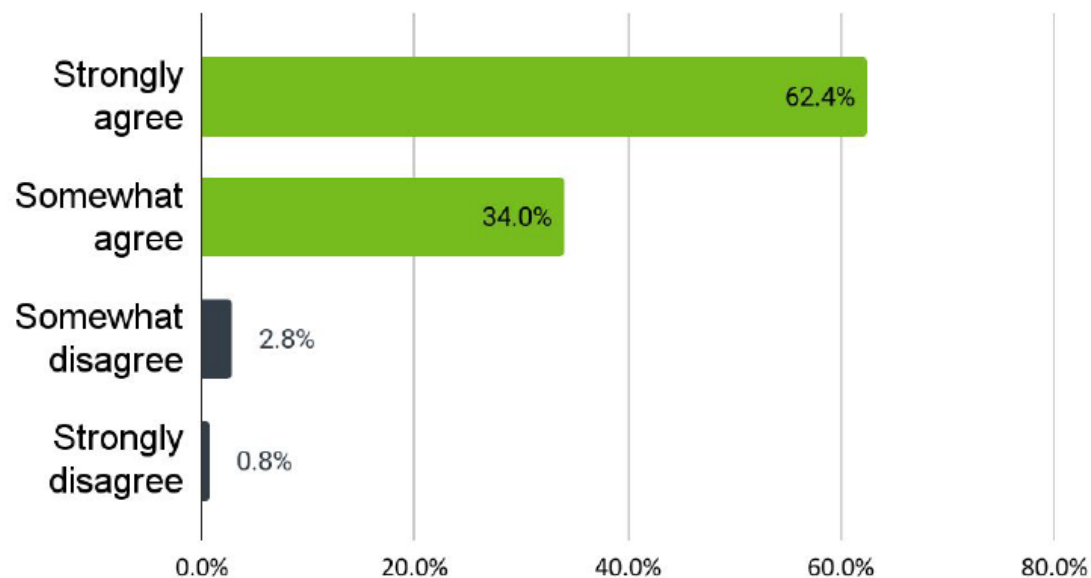
SOURCE: FLASH Resilience Score Survey, July 2024 (n=1054)



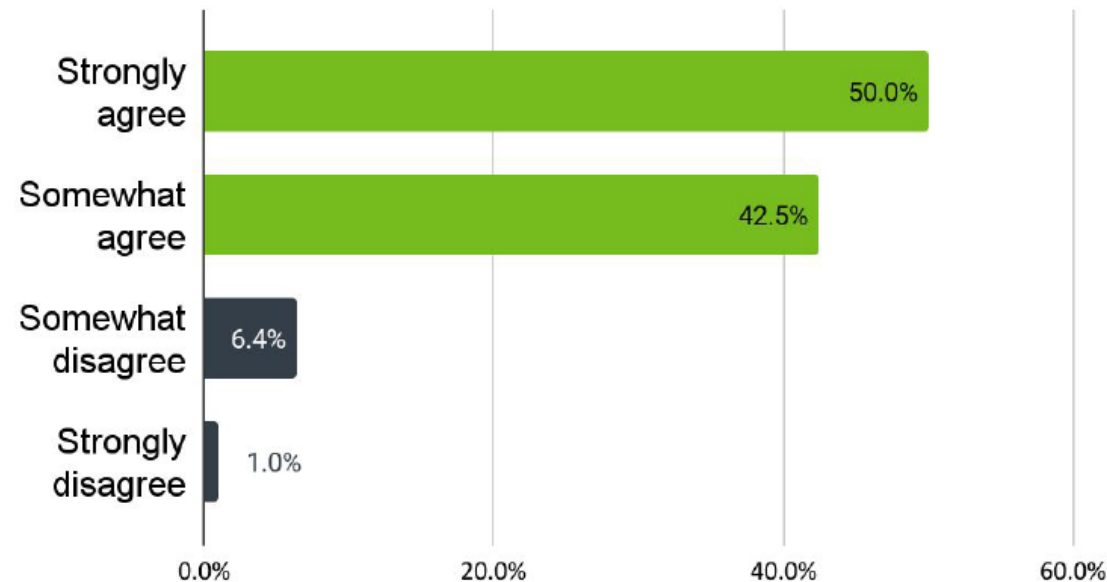
Resilience scores could influence home buying

Homeowners want to know a resilience score ... and make it part of their purchase decision

If I was buying a home, I would want to know how well the home scored under this program.



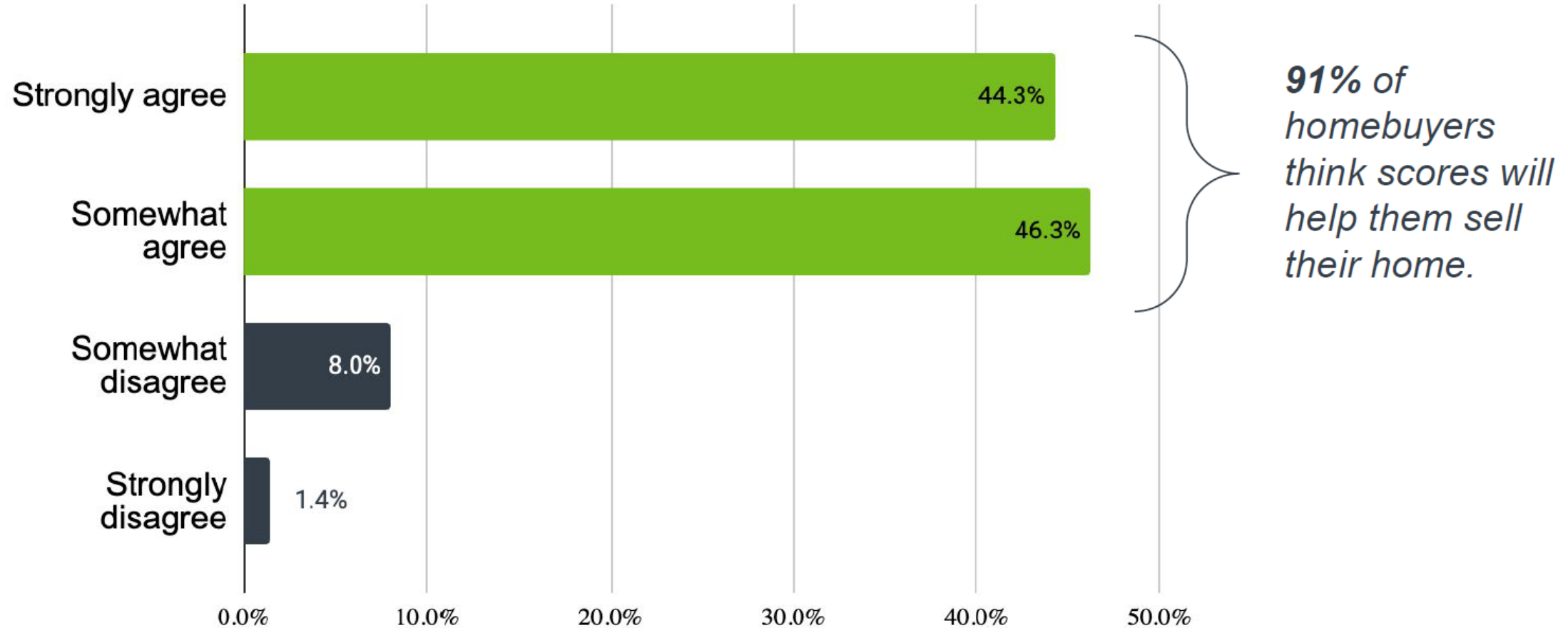
As a home buyer, these scores would be an important factor in my purchasing decision.



SOURCE: FLASH Resilience Score Survey, July 2024 (n=1054)

Resilience scores are also valued when selling a home

This program would help me sell my home.



SOURCE: FLASH Resilience Score Survey, July 2024 (n=1054)



Takeaways - Homebuilder Sentiment

- Understand and accept the role and importance of building codes
- Pain points include legitimate concerns regarding code implementation
- Emphasis on the need to balance the cost/benefit of codes and resilient building practices
- Suggest that if their customers are onboard, they are onboard



Takeaways - Homeowner Sentiment

- High value for resilient/sturdy construction
- Informational needs/preferences include:
 - Simple language
 - Understandable visuals
 - Timely information delivery
- Credible structural insights for their homes

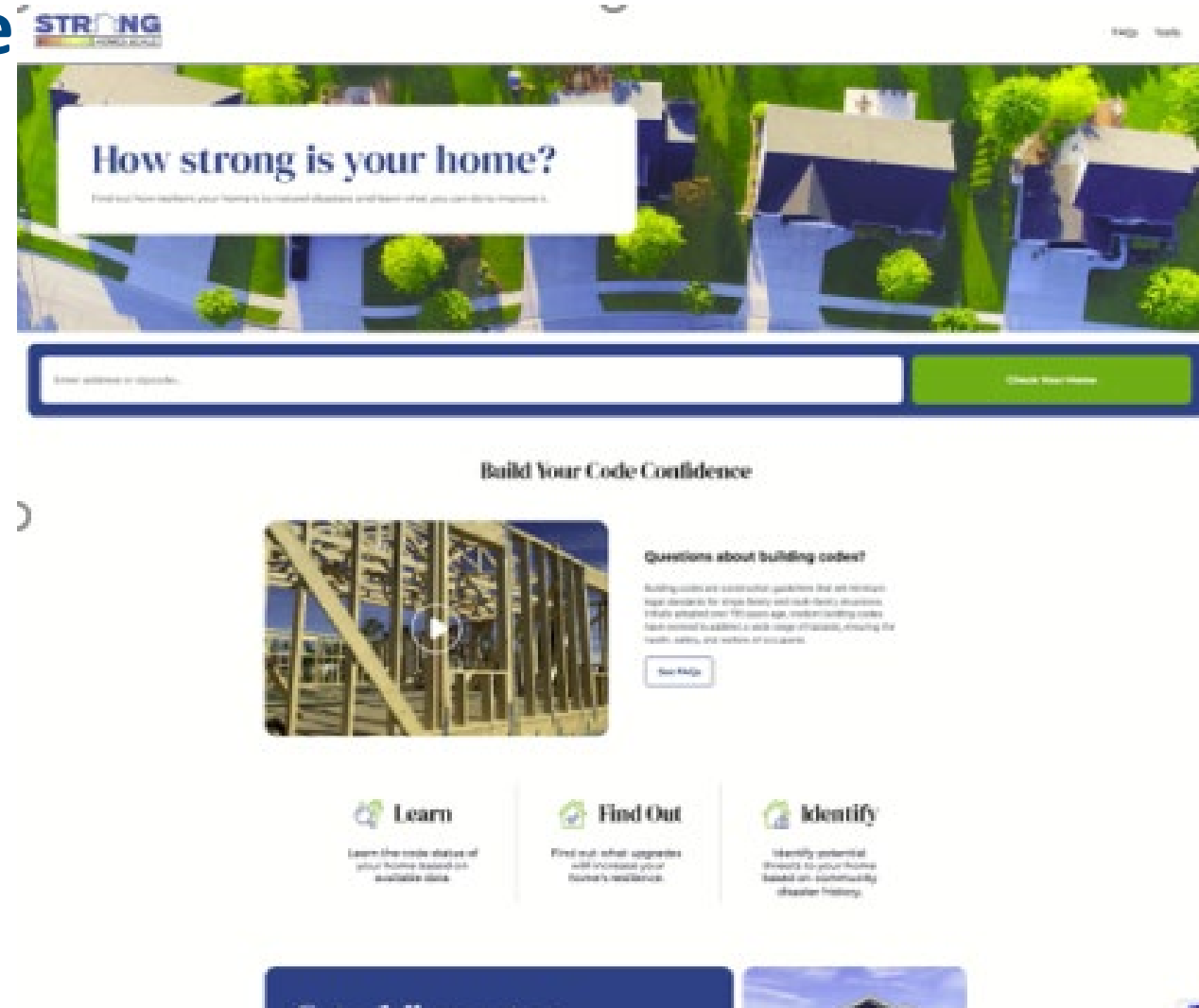


STR[↑]ING



Inspect2Protect.org Homepage

- Research-based call-to-action: How Strong is Your Home?
- Address or location-specific reports
- Building code video case study
- Partnership tools



How it Works

- Enter an address, city, or zip code into the tool
- The Scale then provides a custom home strength rating and identifies ranked disaster risks in the area, such as earthquakes, floods, hurricanes, tornadoes, wildfires, or winter storms
- Click on features to reflect post-construction upgrades and see how they may impact a home's overall resilience rating (once features have been added, the Scale rating will adjust dynamically)
- Users receive a printable checklist on their homes' resilience features and recommendations for upgrade options.

Key Features

- Custom Building Code Lookup
- Strong Homes Scale
- Peril-Specific Retrofit Suggestions
- Comprehensive 3D and 2D Illustration Library
- Links to Technical Resources
- Disaster History Insights
- FAQ's and Checklists



Risk Indicators

Goal:

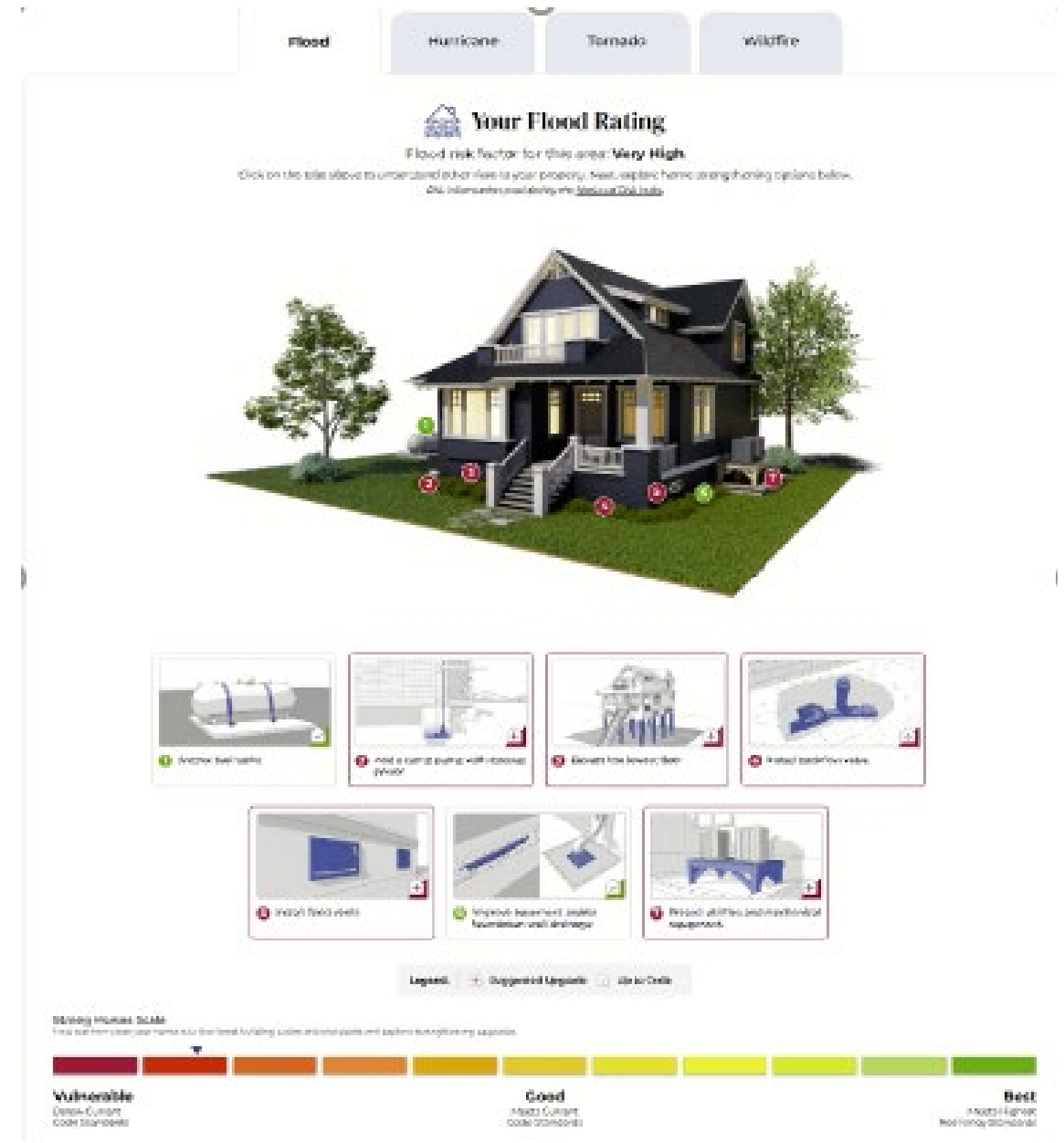
Communicate the top natural disasters relevant to the area

- Earthquake
- Flood
- Hurricane
- Tornado
- Wildfire
- Winter Storm

Approach:

Incorporate FEMA National Risk Index to highlight relevant risks categorized as:

- Very High
- Relatively High
- Relatively Moderate
- Relatively Low



Strong Homes Rating Scale

Goal:

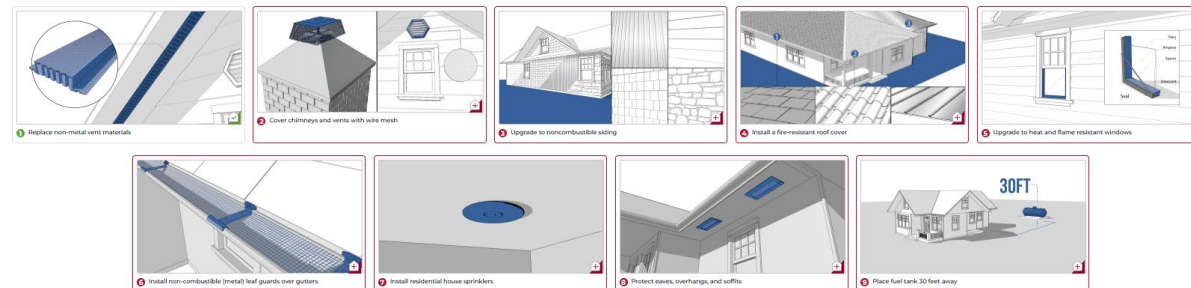
Identify and communicate the specific upgrades required for a home to meet current building code standards.

Approach:

Highlight the areas needing improvement and the peril-specific suggested upgrades to close the gap between the home's current condition and the resilient features in the 2024 IRC.

- Code analysis
- Property data
- Permit data

 **Your Wildfire Rating**
Wildfire risk factor for this area: **Relatively Moderate**
Click on the tabs above to understand other risks to your property. Next, explore home strengthening options below.
Risk information provided by the [National Risk Index](#)



Strong Homes Scale
Find out how close your home is to the latest building codes and standards and explore strengthening upgrades.

Vulnerable

Below Current
Code Standards

Suggested Upgrades

Upgrades are based on the year your home was built in 2005. Verify your information by selecting upgrades that may have been complete since that time.

<input checked="" type="checkbox"/>	Replace non-metal vent materials	<input checked="" type="checkbox"/> Select to Adjust Rating		▼
<input type="checkbox"/>	Cover chimneys and vents with wire mesh	<input type="checkbox"/> Select to Adjust Rating		▼
<input type="checkbox"/>	Upgrade to noncombustible siding	<input type="checkbox"/> Select to Adjust Rating		▼
<input type="checkbox"/>	Install a fire-resistant roof cover	<input type="checkbox"/> Select to Adjust Rating		▼
<input type="checkbox"/>	Upgrade to heat and flame resistant windows	<input type="checkbox"/> Select to Adjust Rating		▼
<input type="checkbox"/>	Install non-combustible (metal) leaf guards over gutters	<input type="checkbox"/> Select to Adjust Rating		▼
<input type="checkbox"/>	Install residential house sprinklers	<input type="checkbox"/> Select to Adjust Rating		▼
<input type="checkbox"/>	Protect eaves, overhangs, and soffits	<input type="checkbox"/> Select to Adjust Rating		▼
<input type="checkbox"/>	Place fuel tank 30 feet away	<input type="checkbox"/> Select to Adjust Rating		▼

Suggested Upgrades

Goal:

Identify the specific upgrades required for a home to meet current building code and resilience standards.

Approach:

Each suggested upgrade contains:

- 2D illustration
- Why it's important
- How to perform the mitigation
- How to identify if you have it
- Questions to ask a contractor

Suggested Upgrades

Upgrades are based on the year your home was built or FEMA. Verify your information by selecting upgrades that may have been completed since that time.

<input type="checkbox"/>	Install pressure and impact-rated garage doors	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Install hurricane shutters	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Strengthen roof deck attachment	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Seal the roof deck	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Brace rafters	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Improve anchorage of attached structures	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Upgrade to high-wind rated roof cover	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Strengthen roof-to-wall connections	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Strengthen foundation connections	<input type="checkbox"/> Select to Adjust Rating	1/2
<input type="checkbox"/>	Brace gable-end rafters	<input type="checkbox"/> Select to Adjust Rating	1/2

Why

Prevents roof sheathing from following the rise of the gable-end wall attachment along the top edge, the failure of the connector between the gable-end wall and the roof joists below, and the failure of the framing members of the gable-end wall.

Gable-end wall failure often leads to a substantial roof failure and loss of the home.

How

Use all rated bracing, bracing with correct connector or long lead to brace gable-end wall over 8 feet.

Bracing gable ends should focus on tying the wall together and connecting the wall to the roof, as well as connecting the gable-end wall to the exterior wall.

How to Identify

Access your attic to inspect the gable-end wall from the inside roof.

Inspect braced gable-end walls should have additional bracing with diagonal bracing, metal plates, or wood reinforcing members attached to the vertical studs of the gable-end wall and the roof structure.

The bracing should be continuous (bracing will be placed or oriented around board ends) and extend from the studs to the bottom of the wall.

How to select a Retrofit Contractor

- Hire an estimator, architect, local two contractors who have completed this retrofit program before, and ask for customer references and for copies of any permits of any wall projects that are available.
- Secure written proof of either contractor's license, liability insurance, and worker's compensation insurance. Make sure to request any documentation for experience dates and license numbers. There is a list of the state's licensed professional contractors on the FEMA website.
- Verify who will actually perform the project, and if they plan to subcontract the work, request license and insurance and proof for the subcontractors, photograph the documentation, and verify with local authorities.
- Request a written estimate, budget, and materials for all materials and supplies. Obtain a payment schedule, and never pay for performance until it is satisfactorily completed and all required code inspections are completed.
- Verify that the necessary building permits are secured. Never agree to "fast" pay without a written review of any contractor that suggests you should do so.
- Obtain a written estimate and payment schedule for the project, and verify the contractor's license and insurance.



Additional Resources

- [Build a Hurricane-Resilient Home](#)
- [FEMA's 150-Point Checklist](#)
- [Hurricane-Resilient Home Checklist](#)

Video Links

- [Hurricane-Resilient Home Checklist](#)
- [Hurricane-Resilient Home Checklist](#)

Help Us Share the Scale!

- Email info@flash.org
- **Promotional Toolkit Includes:**
 - Overview of Strong Homes Scale and Key Features
 - Social Media Copy
 - Branded Badges
 - Branded Logos
 - Branded GIFs for Social Posts (Facebook, IG, LinkedIn, and X)
 - Branded GIFs for Social Stories (Facebook, IG, LinkedIn, and X)
 - Peril-Specific Promotional Ads (Earthquake, Flood, Hurricane, Tornado, Wildfire, and Winter Storm)
 - Branded Peril-Specific Checklists (Earthquake, Flood, Hurricane, Tornado, Wildfire, and Winter Storm)



Strong Homes Scale Web Badges

Display the **Strong Homes Scale** web badges on your websites, social profiles, newsletters, and more to show your support. Available in eight variations.



Strong Homes Scale Social GIFs and Profile Stories

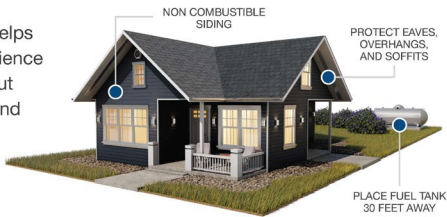


Strong Homes Scale – Promotional Ads



NATURE HAS A SCALE... SO DO WE

The **Strong Homes Scale** helps you gauge your home's resilience to nature's extremes. Find out where your home stands—and how to make it stronger.

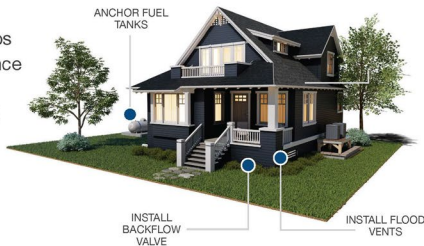


Visit StrongHomesScale.org and get Your Strength Score Now.



NATURE HAS A SCALE... SO DO WE

The **Strong Homes Scale** helps you gauge your home's resilience to nature's extremes. Find out where your home stands—and how to make it stronger.



Visit StrongHomesScale.org and get Your Strength Score Now.



Strong Homes Scale - Peril Checklists

WILDFIRE CHECKLIST


A **STRONG** checklist for reducing wildfire risks and protecting your home from destruction.

STRONG





01 Replace non-metal vent materials



02 Cover vents with wire mesh



03 Upgrade to noncombustible siding



04 Install a fire-resistant roof cover



05 Upgrade to heat and flame resistant windows



06 Install non-combustible (metal) leaf guards over gutters



07 Install residential house sprinklers



08 Protect eaves, overhangs, and soffits



09 Place fuel tank 30 feet away

Visit StrongHomesScale.org and get Your Strength Score Now.



FLOOD CHECKLIST

A **STRONG** checklist for reducing wildfire risks and protecting your home from destruction.

STRONG





01 Anchor fuel tanks



02 Add a sump pump with backup power



03 Elevate the lowest floor



04 Install backflow valve



05 Install flood vents



06 Improve basement and/or foundation wall drainage



07 Protect utilities and mechanical equipment

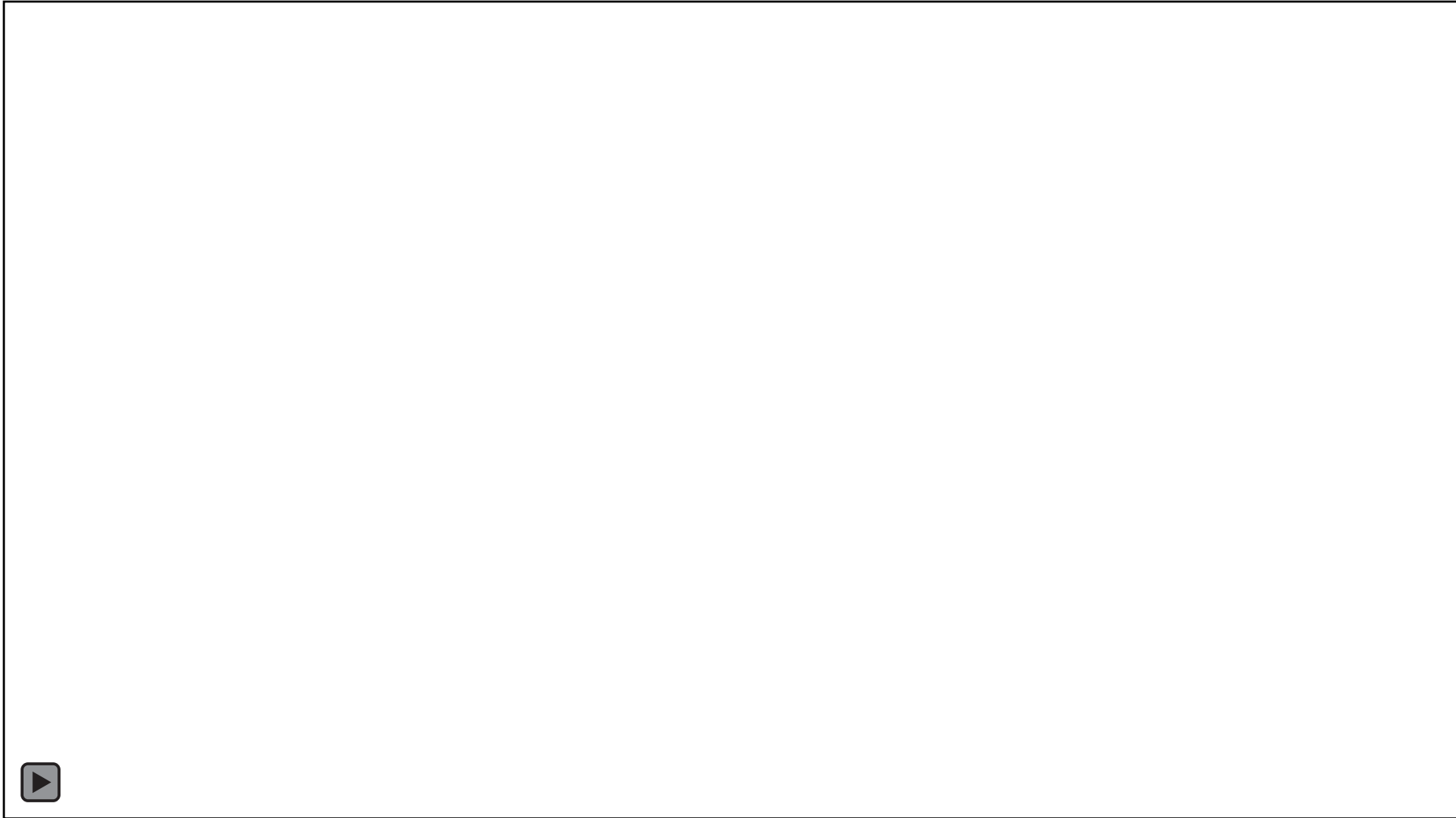
Visit StrongHomesScale.org and get Your Strength Score Now.







WildfireStrong – Animation



WildfireStrong – Digital Presence



- For Homeowners
- For Neighborhoods
- Leadership Hub
- Resources
- CALL 1-877-221-SAFE
- Check Your Home

PROTECT YOUR HOME

"Your Home Can Survive a Wildfire," narrated by Dr. Jack Cohen, will show you how your home can survive a wildfire.

Watch Now



- For Homeowners
- For Neighborhoods
- Leadership Hub
- Resources
- CALL 1-877-221-SAFE
- Check Your Home

EVERY HOUSE MATTERS

Wildfire risk reduction doesn't stop at your property line. By cooperating with your neighbors to minimize ignition risks in your neighborhood, you can make the entire community Wildfire Strong.

Get Your Preparedness Guide



- For Homeowners
- For Neighborhoods
- Leadership Hub
- Resources
- CALL 1-877-221-SAFE
- Check Your Home

LEADERSHIP HUB

The Leadership Hub is designed to provide essential resources, tools, and insights to help shape wildfire prevention and safety policies.



- For Homeowners
- For Neighborhoods
- Leadership Hub
- Resources
- CALL 1-877-221-SAFE
- Check Your Home

RESOURCES

We're your one-stop destination for information about wildfire risks and mitigation strategies.



FEATURED

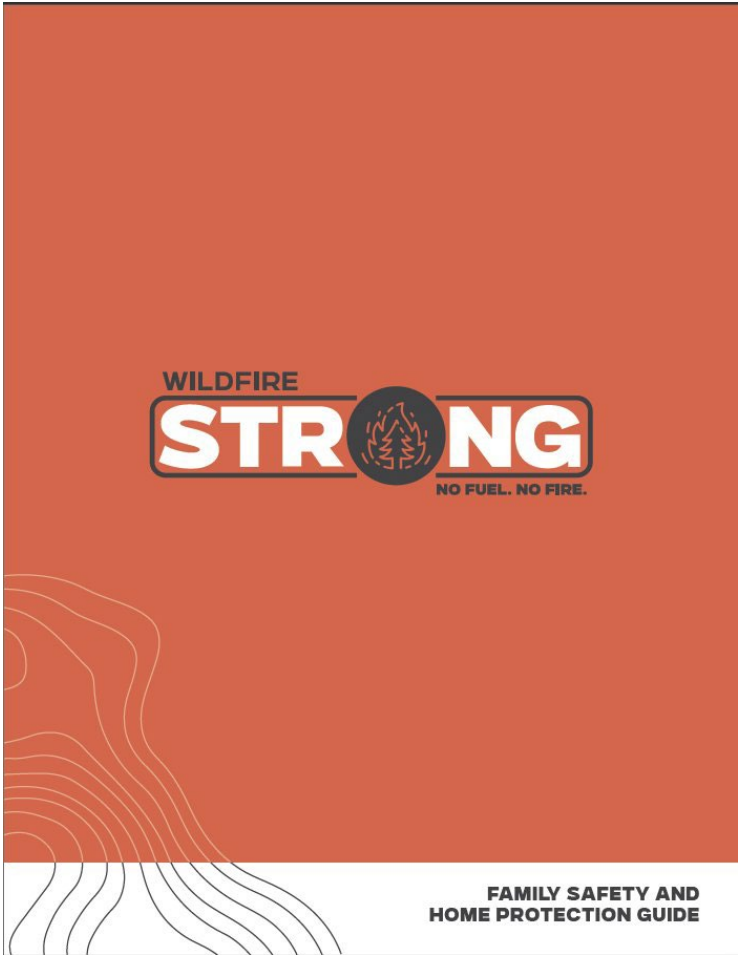
No Fuel, No Fire.

Wildfire devastates millions of homes each year. By following these mitigation steps, you can help ensure your home isn't one of them.

Read More



WildfireStrong – Family Safety & Home Protection Guide



WildfireStrong – Checklists (8)



Install a fire-resistant roof cover

Why

- Reduces potential for home ignition caused by embers and other burning debris landing on the roof.

How

- ASTM E 108 Class A fire-resistant roof coverings are the most wildfire resistant. They cover a range from non-combustible coverings like clay tiles, concrete tiles, and metal panels to combustible coverings like asphalt shingles and low-slope membranes.

- When reroofing, use a Class A fire-resistant roof covering. Class A also includes roof systems and roofing assemblies and the type of roof covering.

- If not reroofing, inspect your existing roof to rule out vulnerable conditions such as barrel tile roofs without bird stops, as these conditions negate the Class A rating and effectiveness.

- Consult an experienced, licensed roofing contractor or qualified home inspector for assistance.

How to Identify

- Inspect the underside of the roof covering material to see if it is stamped with fire-resistant rating information. Identify your material type (shingle, tile, or metal), and contact your local building department to determine if the roofing permit contains fire-resistant rating details.

WILDFIRE **STRONG**



Protect eaves, overhangs, and soffits

Why

- Reduces ember ignition potential in the home's attic or walls through the use of non-combustible materials or by protecting an opening with screening to block ember entry.

How

- Enclose overhangs with fire-resistant soffits. Note that flat, horizontal soffits are less likely to use of entrapped embers and hot gases than sloped soffits.
- Replace existing soffits that are not fire-resistant or protect existing soffits by covering them with non-combustible or fire-resistant materials like fiber-cement boards.

How to Identify

- Check eaves, overhangs, and soffits to ensure they are made with non-combustible materials.

- Use metal soffit vents with fine mesh screens of 1/8 inch or smaller.

- Use non-combustible or fire-resistant materials for eaves, fascia, and overhangs.

- Consult an experienced, licensed retrofit contractor for assistance.

- Ensure metal vents are covered with fine mesh screens of 1/8 inch or smaller.

WILDFIRE **STRONG**

WildfireStrong – Launch

- Website (NoFuelNoFire.org)
- Campaign Launch Event
 - May 1
 - Location: Medford, OR Emergency Operations Center
 - Partners include: the City of Medford, the City of Jacksonville, the City of Ashland, the City of Applegate, the Oregon Fire Marshal Department, and the Oregon Department of Forestry
- Billboard & Mobile Campaign



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