COLORADO ASSOCIATION OF HOME BUILDERS

Builder Guide to the Colorado Wildfire Resiliency Code (CWRC)

Understanding the CWRC Requirements and Best Practices for Residential Construction

INTRODUCTION

The Colorado Wildfire Resiliency Code (CWRC) establishes statewide minimum standards for construction and site development within designated Wildland-Urban Interface (WUI) areas. Adopted pursuant to Senate Bill 23-166, the code is intended to reduce the risk of structure ignition from wildfires through a combination of building hardening measures and defensible space requirements.

For builders, developers, and design professionals, understanding CWRC requirements early in the development process is critical to avoiding permitting delays, redesign costs, and construction complications. This guide provides a practical overview of the code, explains how properties are classified, and highlights key considerations for project planning and compliance.

1. UNDERSTANDING WILDFIRE HAZARD CLASSIFICATIONS

One of the most important concepts in the CWRC is the distinction between wildfire hazard intensity levels and construction requirement classes.

The Colorado Wildfire Resiliency Code utilizes a statewide wildfire hazard map that identifies three wildfire fire-intensity classifications:

Low Fire Intensity

- Shown as **Yellow** on the state map.
- Represents areas with lower wildfire exposure and fire behavior potential.

Moderate Fire Intensity

- Shown as **Orange** on the state map.
- Represents areas with elevated wildfire exposure and greater potential for structure ignition.

High Fire Intensity

- Shown as **Red** on the state map.
- Represents areas with the greatest wildfire exposure and fire behavior potential.

While the state map identifies three wildfire hazard intensity levels, the CWRC establishes only two sets of construction requirements.

Wildfire Hazard Intensity	Map Color	CWRC Construction Class
Low Fire Intensity	Yellow	Class 1
Moderate Fire Intensity	Orange	Class 2
High Fire Intensity	Red	Class 2

As a result:

- **Class 1 Requirements** apply to development located within Low Fire Intensity areas.
- **Class 2 Requirements** apply to development located within Moderate and High Fire Intensity areas.

Projects located within Moderate or High Fire Intensity areas must comply with the more stringent Class 2 requirements.

If a parcel contains multiple hazard classifications, the Authority Having Jurisdiction (AHJ) may require compliance with the more restrictive requirements.

Link to the 2025 Colorado Wildfire Resiliency Code Map

2. DETERMINING WHETHER THE CWRC APPLIES

The first step in evaluating any project is determining whether the property is located within a designated Wildland-Urban Interface (WUI) area.

Builders should review:

- Colorado's statewide CWRC hazard map;
- Local jurisdictional mapping resources;
- Any local amendments adopted by the Authority Having Jurisdiction (AHJ); and
- Site-specific conditions that may warrant further evaluation through the ground truthing process.

Because wildfire hazard classifications can significantly impact building and site design requirements, any ground truthing determination should occur during the earliest stages of project due diligence.

3. GROUND TRUTHING: WHY IT MATTERS

What Is Ground Truthing?

Ground truthing is the process of verifying wildfire hazard classifications through an on-site evaluation of actual conditions.

Colorado's statewide hazard maps are based on modeling and statewide datasets. While these maps provide an important starting point, they cannot fully account for site-specific conditions such as:

- Recent development activity
- Vegetation removal
- Changes in topography
- Wildfire mitigation work
- Disturbances caused by insects, disease, or previous fires

Ground truthing allows local jurisdictions and fire professionals to evaluate actual site conditions and determine whether mapped classifications accurately reflect wildfire risk.

Why Ground Truthing Is Important

Ensures Accurate Classification

Statewide mapping may not always capture current site conditions. Ground truthing helps verify whether a property's mapped wildfire hazard classification accurately reflects conditions on the ground. This can be especially important for developing master-planned communities.

Improves Project Planning

Early identification of wildfire hazards allows builders to:

- Anticipate construction requirements
- Select compliant products and materials
- Design defensible space measures
- Reduce redesign costs and permitting delays

Supports Consistent Code Application

Ground truthing provides a mechanism for evaluating unique site conditions that may not be reflected in statewide mapping, helping ensure that code requirements are applied fairly and consistently.

Enhances Public Safety

The ultimate objective of ground truthing is to ensure that wildfire mitigation measures correspond to actual wildfire risk and provide meaningful protection for structures and occupants.

Ground Truthing Process and Entities

Builders seeking to verify site-specific wildfire conditions may wish to engage qualified professionals such as foresters, wildfire mitigation specialists, fire protection engineers, or environmental consultants with expertise in wildfire risk assessment. **Builders should coordinate with the local authority having jurisdiction before commissioning a study to ensure any assessment will satisfy local review requirements.** Technical documentation shall be submitted in support of such request by a qualified wildfire professional and in accordance with Section 104.2.

These organizations can provide technical evaluations and supporting documentation in the ground truthing process*:

1. Colorado State Forest Service
2. Local Fire Protection Districts
3. Blue Mountain Environmental Consulting Services | Colorado ^
4. SWCA Environmental Consultants
5. Tetra Tech
6. JW Associates
7. Incandescence Life Safety ^

*These entities are not endorsed by the CAHB, only provided as examples of companies who hold themselves out as performing ground truthing services.
^Companies who we know are working directly with builders

4. THE TWO COMPONENTS OF THE CWRC

The CWRC is built around two primary concepts:

Structure Hardening

Structure hardening requirements are designed to prevent embers, radiant heat, and direct flame contact from igniting a building.

Defensible Space

Defensible space is the area surrounding a home or structure that is managed to reduce wildfire risk. Within this area, vegetation and other combustible materials are removed, reduced, or maintained to help slow the spread of fire.

Creating defensible space lowers the likelihood that a home will ignite from direct flames, radiant heat, or wind-driven embers. It can also reduce ember production near the structure and help prevent fire from spreading to neighboring homes or surrounding vegetation.

- **Defensible Space Zones**
  - An effective defensible space strategy consists of several management zones established around all structures on a property, including homes, detached garages, barns, sheds, and other outbuildings.
    - **Class 1 (0–5 feet):** The area immediately adjacent to the home or structure. This is the most critical zone and requires the highest level of maintenance to minimize wildfire hazards.
    - **Class 2 (5–30 feet):** The intermediate area where vegetation and other fuels should be selectively reduced and managed to decrease fire intensity.
    - **Class 3 (30–100 feet):** The outer management area, extending up to 100 feet from the structure on relatively flat terrain, where fuels should be thinned and maintained to slow the approach of wildfire.

Together, these measures significantly reduce the likelihood of structure loss during wildfire events.

TOOLS & RESOURCES

REFERENCE MATERIALS

Colorado Wildfire Resiliency Code	Link to resource
2025 Colorado Wildfire Resiliency Code Map	Link to resource
Code Adoption & Implementation Resources	Link to resource