

WILDFIRE HOME HARDENING GUIDE

An interactive guide on how to protect your home from wildfire

- **WEB APPLICATION:**
<https://sbfiresafecouncil.org/wildfire-home-hardening-guide/>
- Click “HELP” in the bottom menu on the site for tips on how to navigate using our innovative site navigation.

Project Overview

The Santa Barbara County Fire Safe Council, with the support of CAL-FIRE, has developed a web application to aid in home hardening against wildfire and defensible space resilience. The Santa Barbara County Fire Safe Council's mission is to promote wildfire safety in Santa Barbara County through education and action. This Wildfire Home Hardening Guide was generously funded through the Cal Fire Climate Investment Grant for the Regional Wildfire Mitigation Program.

Project Objectives

- Raise awareness of the importance of home hardening and creating a defensible space.
- Provide guidance for residents on how to identify areas in, on and around their home that need to be improved, and provide clear information on actions they can take to reduce the risk of wildfire.
- Achieve an engaging, innovative, immersive experience that engages residents of Santa Barbara County and beyond, to create an experience that stimulates exploration, understanding and learning.

Tools and Methods

- Drone video and 360 degree rotational camera shots to capture videos and images around two homes to clearly show the proximity to wilderness and demonstrate the risk of wildfire, and to provide additional perspective on the relationship between neighboring homes, landscaping and combustible materials that surround our homes.
- Photographs of various homes and “do’s” and “don’ts” examples were shot

- Short videos were created to focus on key concepts around fire-sensitive areas of homes
- Various diagrams and instructional materials
- PDF two-page overviews of the content for offline printing
- Marzipano, a 360° media viewer for the modern web that supports all major desktop browsers and mobile devices, embraces standard web technologies and provides a powerful Javascript API. <https://www.marzipano.net/>
- Spanish translation of the portal

A survey of home hardening resources available on the web demonstrated that while there was information, much of it was mostly text based and lacking in practical, clear explanations and visual examples such as video and photos that would make this information helpful to homeowners, renters and contractors.

A web-based application with an innovative, image-rich interface that encourages engagement and exploration would be a valuable resource to increase awareness of the importance of home hardening to residents, and to provide clear, easy-to-understand information that allows residents to identify important improvements they can make to help their homes resist wildfire.

The Team

- Anne-Marie Parkinson, Executive Director of the Santa Barbara County Fire Safe Council
- Christina McGinnis, Project Manager – Structural Retrofit Program
- Experts featured in videos:
 - Dave Shew, Fire Expert
 - Maeve Juarez, Wildland Fire Specialist
 - Rob Hazard, Santa Barbara County Fire Marshall
- Videographer and Editor: Ethan Turpin of BurnCycleProject.com
- Website, Design and Technical implementation: Alison Bradley, Creative Director of [WackyPuppy Design](http://WackyPuppyDesign.com)
- Spanish Translation: Viviana Marsano

Technical Overview

The website was optimized for desktop/large tablet use, and it was important to create individually shareable URL links to each section of the site. Individual HTML pages were created for each section. Marzipano was used to provide an innovative navigational and exploratory way to explore different areas around the house. A more standard left menu bar was also included, to allow people to skip the innovative interface if they wanted. Two houses were used to provide different features and examples. We used Vimeo's free user level to host the videos. Videos were filmed of fire experts in the locations we shot the 360 degree photos that

were used in the Marzipano navigation, to give a seamless user experience.

Feedback from site visitors has been very positive, including comments such as “The layout is super user friendly, so easy to navigate”. Comments on the navigation elements were mostly very positive (“Awesome!”, “Great”, “ I liked it”, “It's helpful.”) but one respondent said, “Did not really feel it was needed.” The videos were particularly appreciated by site visitors.

Repository and Terms of Use

This application is using third-party tools and software libraries. You can download the files from our GitHub repository and use this as the base for your project, but the content of the website (text, images and video) are copyrighted and you do not have permission to use those. Feel free to use the code provided in the repository, then CHANGE THE CONTENT to suit your project. If you have questions about the project, or need some help, reach out to the technical lead Alison Bradley at alison@wackypuppy.com.

Information about Marzipano

- <https://www.marzipano.net/>

Marzipano is used primarily as a 360 degree media viewer, and using it for such a content-rich application was an unusual deployment. This required considerable creativity and customization to achieve the desired user experience.

Get started with the Marzipano Tool

The tool generates a virtual tour from a set of panoramas and allows you to export it as a web application that can be deployed as-is or used as a boilerplate for more advanced projects. Requires Firefox or Chrome. We found this tool to be rather limited for the purposes of this project, and only used it to get some initial familiarity with the UI/UX features of Marzipano. <https://www.marzipano.net/tool/>

Downloading Marzipano and getting started with your project:
<https://www.marzipano.net/docs.html>

Content Editing using Marzipano

Marzipano cannot be integrated easily with a content management system, so we used a small free-to-use CMS after deployment to provide site administrators with an easy way to make content changes.