SuperAdobe Disaster Relief Housing

John Camacho

The science behind creating an adobe house has been around for thousands of years; the primitive mixture in its origin contains only dirt, water, and straw. Science has taken this a step further with the introduction of cementitious admixtures and reinforcement. The result is an adobe structure with exemplary thermo-retentive properties and load-bearing capabilities. This project provided an analysis on the "SuperAdobe" earthbag system that has been put into practice by independent contractors and housing-relief initiatives. The goal of the project was to estimate a disaster-relief style structure as a template for future application. The aim of the estimate was to conclude that this structure would be cost-effective and relevant to disaster relief efforts. The project was estimated in the Otay Ranch area of San Diego and found that the total estimated cost of the structure was cost effective compared to alternative disaster relief efforts, providing long-lasting shelter and comfort.

Key Words: Adobe, Disaster Relief, Housing, Affordable Housing, Sustainability

Construction Phases

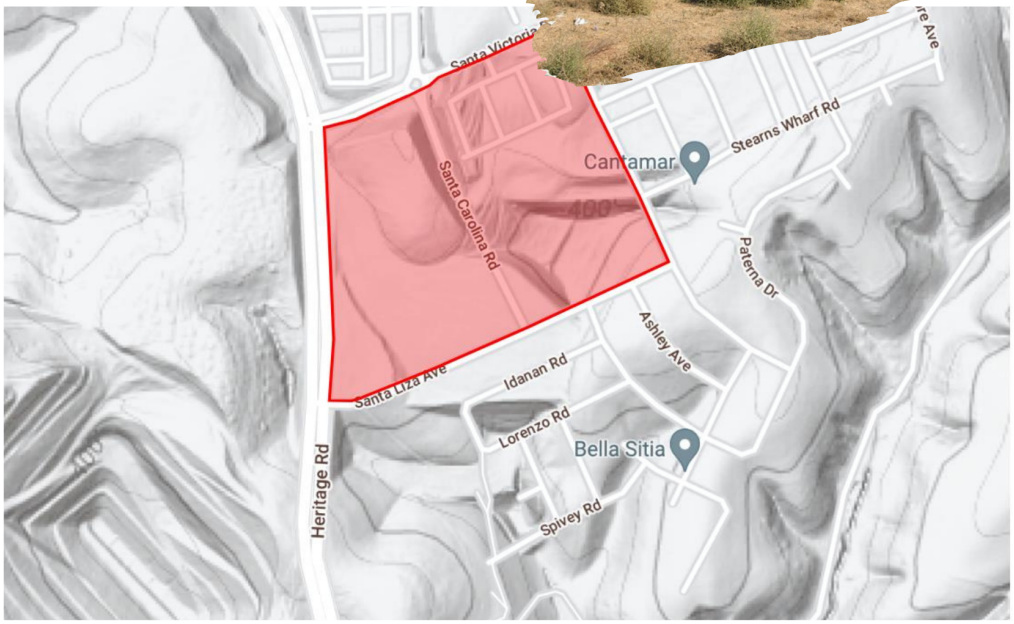
1

2

3

OTAY RANCH

Village 2 | Section R-23 | 18 Acres



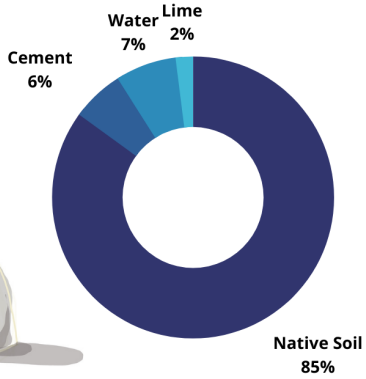
Haiti Disaster Relief, 2010

CalEarth EcoDome

Costa Rica, 2019

CalEarth Haiti One

Building Data



- Rigid Construction
- Cost Effective
- Long Lasting
- Sustainable Materials
- Net Zero

x 3
6,500
20 CY
5 CY
2,000 Gal

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