

## Featured Project



### Karuk Tribe Projects

Orleans, Happy Camp, and Yreka, California

**Yreka Townhouses—Yreka, California:** ArcSine performed electrical and HVAC design modifications to existing two-, three-, and four-bedroom townhouses. The designs were to be used in multiple locations and included the following services:

- Field investigation.
- Designed removal of electric wall heaters in each room.
- Performed electrical load calculations.
- Performed HVAC calculations.
- Designed a conventional HVAC system utilizing high efficient heat pumps.
- Designed solar hot water heaters, to connect to existing water heater system.
- Researched feasibility of small photovoltaic systems for each townhouse.

**Yreka Houses —Yreka, California:** ArcSine designed HVAC, plumbing, electrical, and lighting systems for one-bedroom and two-bedroom house plans to be constructed in multiple locations, which included the following services:

- Field Investigation.
- HVAC, plumbing, power distribution, and lighting design.
- Recommended cost-effective design solutions for green building designs.

**Yreka Houses —Yreka, California:** ArcSine provided plumbing improvements for 30 existing houses including an on-demand water heating systems for each house type.

**Happy Camp Housing—Happy Camp, California:** ArcSine performed mechanical, electrical, and plumbing system design for 31 existing two- three- four- and 5-bedroom houses, which included the following services:

- Design of high-efficient heat pump systems for each house type.
- Design of on-demand hot water systems for each house type.

**Orleans Houses—Orleans, California:** ArcSine designed HVAC, plumbing, electrical, and lighting systems for new two-bedroom and three-bedroom house plans to be constructed in multiple locations, including the following services:

- Site utility design and coordination for power/telephone.
- HVAC, plumbing, power distribution, and lighting design for two- and three- bedroom houses.
- Segregated standby power with an 8kW standby generator.
- Design of a geothermal heat pump system for each house.

**Orleans Houses—Orleans, California:** ArcSine designed HVAC, plumbing, and electrical systems for 31 existing houses.

- Designed high-efficient heat pump systems for each house type.
- Designed typical rooftop photovoltaic systems for each house type.
- Designed new propane water heating systems for each house type.

**Evans Development—Happy Camp California:** This project consisted of a new water storage and distribution system, designed to accommodate fire flow requirements, and intertied with the existing community water district system. The project supports the construction of 5 new houses, in addition to existing houses already served (totaling 14 homes).

- Domestic water flow calculations (14 homes).
- Fire storage calculations.
- Tank (125K gallons) and pipe sizing.
- Evaluate existing pumps and specify new pumps .
- Field investigation.
- Utility coordination.
- Coordination with the CSD.
- Service entrance design.
- Standby generator.
- Design of site power distribution.
- Control system design
- Telemetry design

Design Completion  
Various

Construction Completion  
Various

Electrical  
Lighting  
Mechanical  
Power Distribution  
Construction Services  
Photovoltaic System

