

THE FURNACE RESTORATION PROJECT

Susanna Campbell Kuo © 2008



Photo/Susanna Kuo

The Oswego Iron Furnace was the first furnace on the West Coast and is the only surviving charcoal iron furnace west of the Rocky Mountains. Since 2003 the Oswego Heritage Council has worked closely with the City of Lake Oswego to create a restoration plan for the 1866 structure, which stands in a city park on the banks of the Willamette River. Although the buildings that originally surrounded the furnace are gone, the riverside site and the creek that provided waterpower are largely unchanged. The furnace, which is listed on the National Register of Historic Places, was Oregon's largest manufacturing enterprise in the 19th century and produced pig iron for foundries in Portland and San Francisco.

The 44-foot tall stack is modeled on the Lime Rock Furnace in Connecticut. The massive walls of locally quarried basalt are pierced with Gothic arches of red brick. Although the exterior is in relatively good condition, the interior stonework is seriously deteriorated. In 2005 the City of Lake Oswego appointed an eight-member citizen task force to develop a restoration plan. In 2007 Miller Consulting Engineers finalized a plan for stabilizing and repairing the monumental stone stack, which was hailed as a model of the mason's art when it was completed in 1866.

Preservation Plans

The basalt walls and brick arches will be repaired and stabilized. The firebrick lining will not be replaced due to the impossibility of replicating the historic bricks, which were manufactured in a variety of sizes and shapes for specific zones inside the furnace. Preservation work includes the following steps:

1. Rebuild missing stonework with matching basalt.
2. Grout the masonry with natural hydraulic lime mortar approved for historic preservation.
3. Rebuild the brick arches.
4. Inject grout into the rubble fill between the inner and outer walls.
5. Anchor the stack to its foundation with four vertical steel rods.
6. Install a low profile soldered seam lead roof for weather protection.
7. Install recessed iron gates in the four arches.

Interpretive Kiosk

When restoration work is complete, the chain link fence surrounding the furnace will be removed and an interpretive kiosk will be built on the lawn east of the stack. Diagrams and historic photos will illustrate the original iron works and will explain the process of smelting and casting iron.

The Casting Arch has suffered the most damage to its brickwork.

Photo/Frank and Susanna Kuo



Panoramic view of the interior shows where large blocks have fallen and exposed the rubble fill between the inner and outer walls. *Photo/Frank and Susanna Kuo*