See-Through Double-Bell Heater with Heated Platform/Bed. Retrofit ConstructionWorkshop.

With:

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Outline

- Overview of the basic theory for bell heater design and construction.
- Overview of the workshop heater design.
- Retrofit construction of a see-through double-bell heater with black bake oven and a heated platform in place of an existing masonry fireplace

The heater will have a heated platform similar to heated bed – a feature that is quite popular in Russia. The heater core is planned to be finished during the workshop with rough concrete and clay brick facing ready to accept stucco/plaster and tile finish later. It will be vented through an existing stainless steel chimney.

Participants will be provided with a complete set of drawings for this double bell heater and upon completion of the workshop should be able to build this heater on their own assuming they have sufficent masonry skills for such projects.

Workshop Logistics

Workshop has been approved by the MHA Educational Committee. MHA Certified Heater Masons attending this workshop will receive 4 points towards their continued education goals.

It is a hands-on workshop. It is limited to a maximum of 12 participants.

Workshop fee of US$370 for four days of workshop includes lunches. Lodging is not provided and its cost is not included in the workshop fee. Cincinnatti is a large city and offers lots of choices for lodging. The hosts will be taking payments by check at the time of reservation. The full cost of the course is due up front to confirm a spot. Dead line for registration is October 15, 2010.

Interested people should reserve a spot by contacting Victor or Ana at 513-4422775 or 513-307-2365, or by email at vlgera@msn.com

Goals

Our goal is to build this unique heater complete in a hands-on workshop environment where everyone gets a chance to work on the heater. We plan on having a test fire at the end of the 4thrd day.

Bell Heater Workshop

Safety

All participants must bring their own safety equipment:

- Safety boots or closed toe shoes (no sandals)
- Eye protection;
- Hearing protection;
- Dust mask;
- Gloves (rubber and construction).

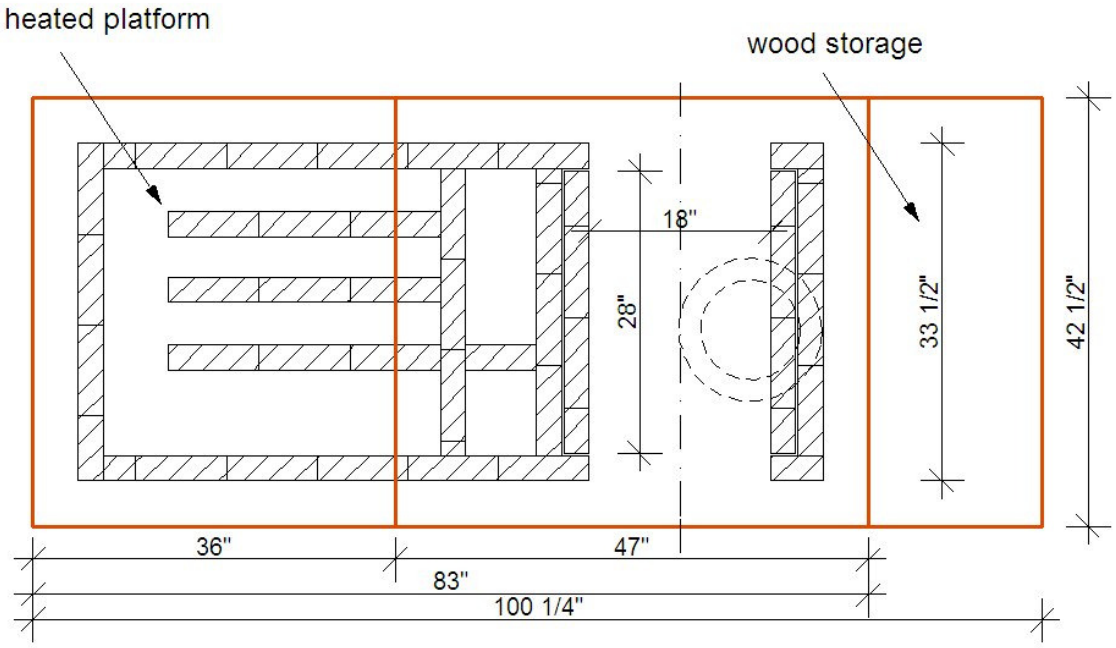
Participants should expect to be working with refractory and clay brick, refractory and thin set mortars, and ceramic wool. Participants should bring their own basic hand tools (trowels etc.) and should expect to be working with the following power tools:

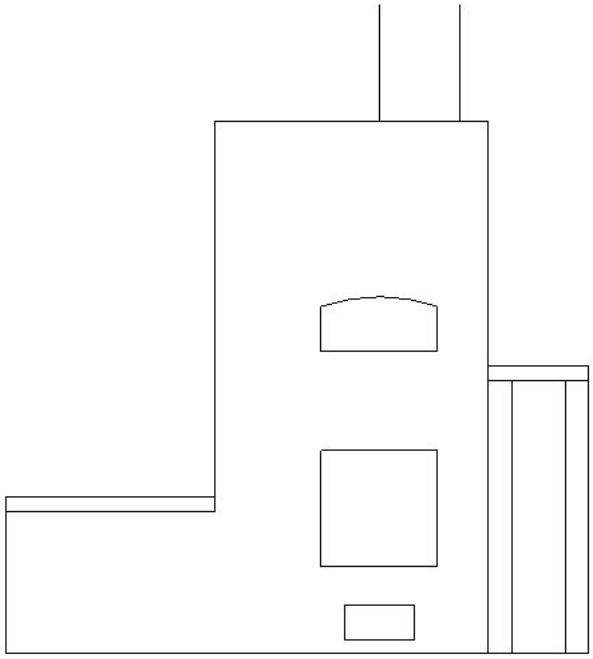
- Wet saw
- Small angle grinder.

Heater Core

Test heater core will be built using standard 2 ½" firebricks and large refractory tiles 12"x24"x2 ½" with 2 ½" inner firebox liner. The heater is designed for 60-80lbs load of hardwood. Nominal heat output under two 50lbs loads a day is about 25-33000 Btu hr. The heater is top vented.

Heater core plan and elevation:





Heater Facing

The test heater will be faced using clay and concrete brick laid in cement-based mortar.