

## Foundation plans

Figure 13 and Figure 14 show a typical concrete block foundation for a heater and chimney. A 4 – 6” cantilevered slab provides an 18” non-combustible hearth extension. The slab is reinforced on 6” centers with 1/2” reinforcing rod.

For a 22” core, the cantilevered slab should be 52” wide. For ease of construction, it is often easier to leave the concrete block foundation at 48” to avoid having to cut blocks.

A good way to form the slab bottom is to use “V - pan”, a heavy gauge corrugated steel that is used in commercial construction to form roof decks. This avoids the problem of having to remove combustible plywood forms. Another option is cement board.

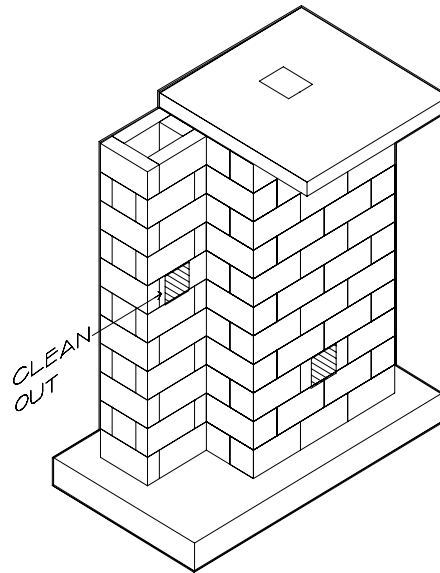


Figure 13. Footing, foundation and cantilevered slab

## Outside combustion air

A styrofoam plug leaves an 8” x 10” cutout for ashes to drop down and for combustion air to come up. Combustion air is supplied by a 6” diameter thimble (not shown) in the blocks just below the slab. Where your local code requires it, this is hooked up to the outside by means of a 6” insulated flex duct at basement ceiling level.

We have conducted testing on masonry heater air consumption rates, and shown that outside air is not required, even in a tight house.. See reference<sup>ii</sup> below for more details.

<sup>ii</sup> Senf, N., *Air Requirements and Related Parameters for Masonry Heaters*, for Research Division, Canada Mortgage and Housing Corporation, Ottawa, 1994.

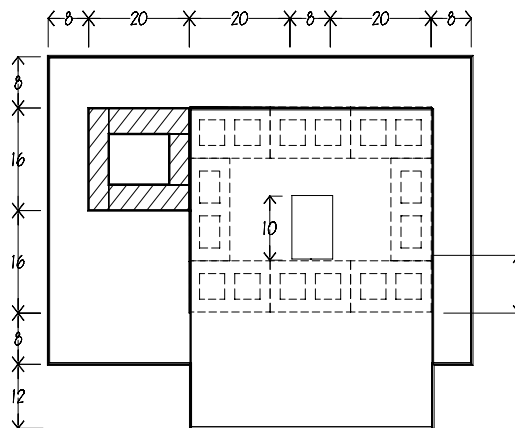


Figure 14. Typical foundation, plan view. Concrete block laid out for minimal cuts. Hollow foundation is used to store ashes. Cantilevered concrete slab provides noncombustible heart extension.