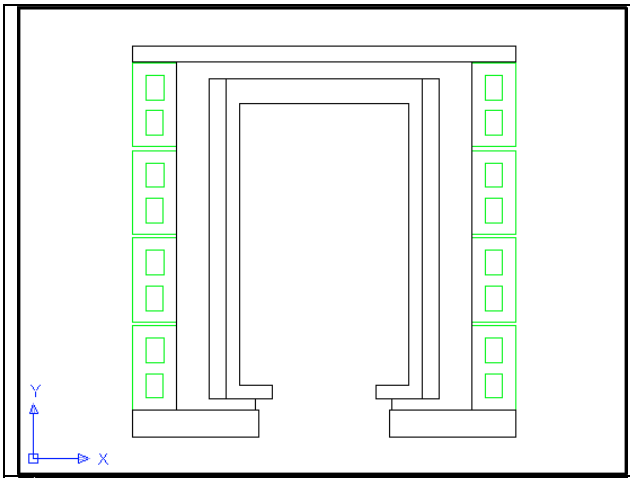
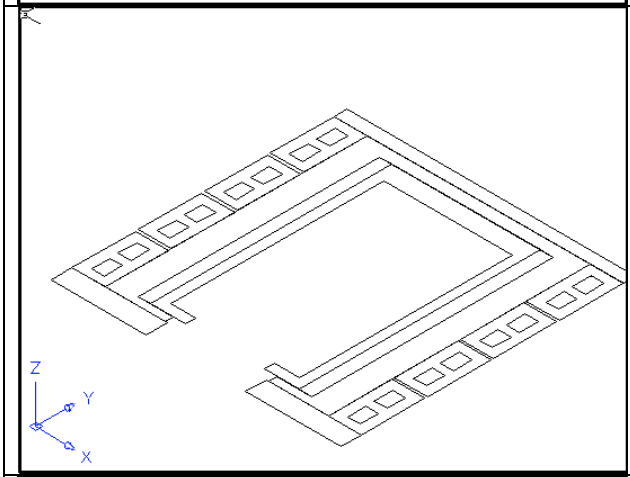
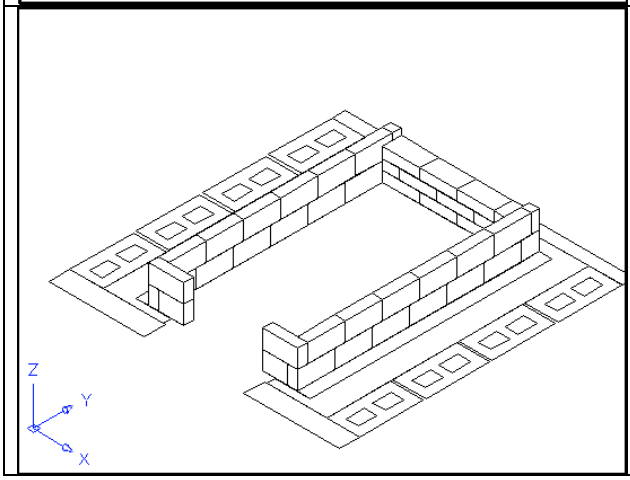
Masonry Stove Builders

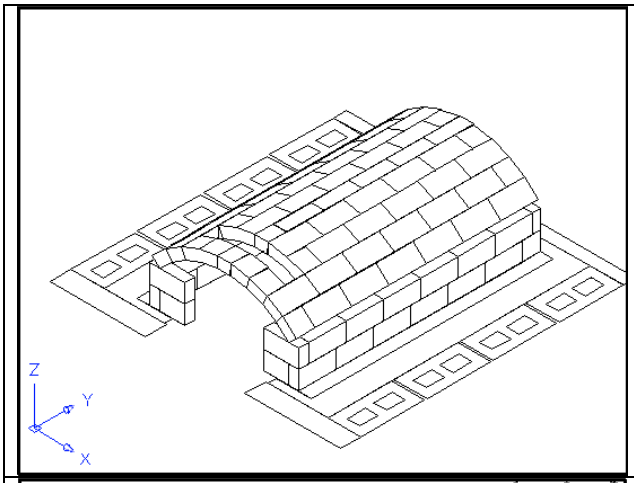
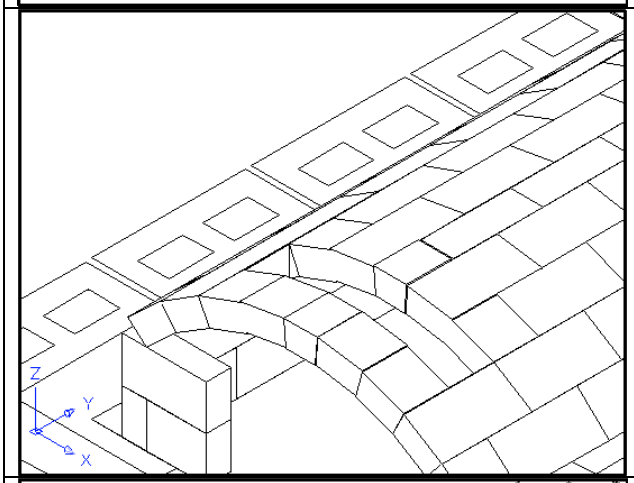
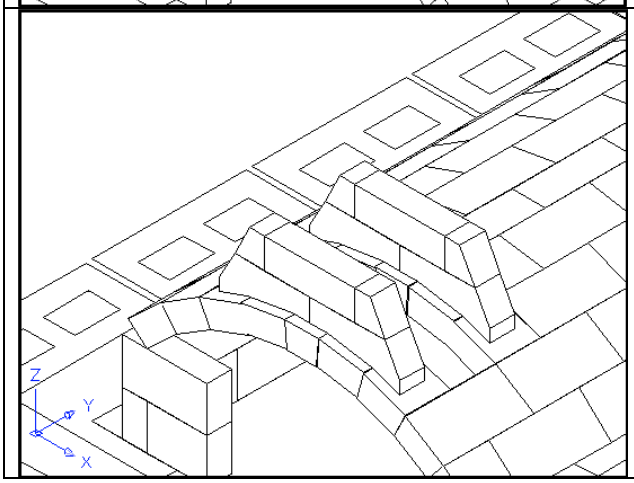
RR 5 Shawville Québec J0X 2Y0

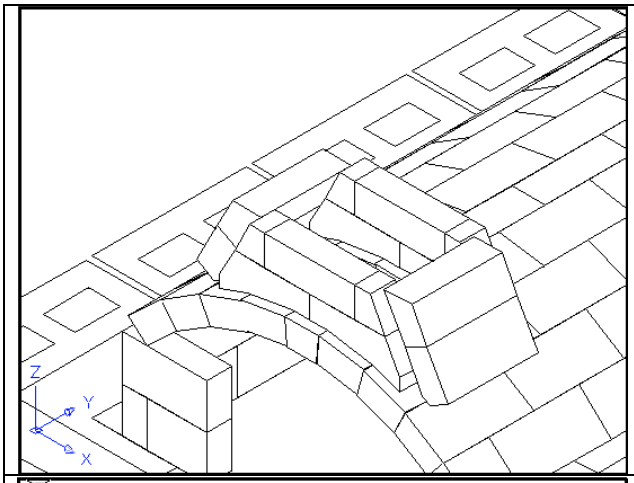
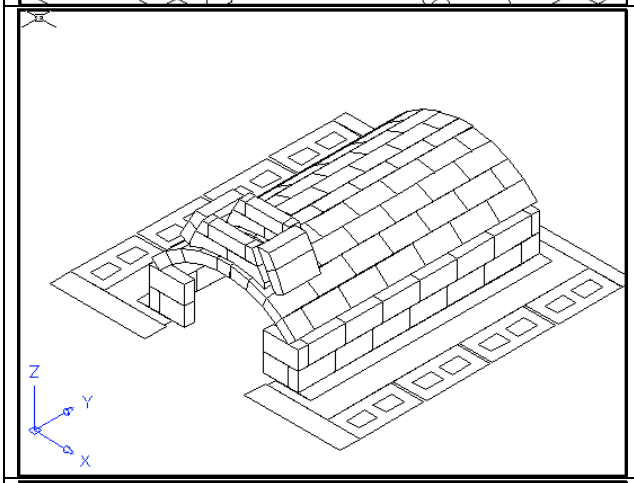
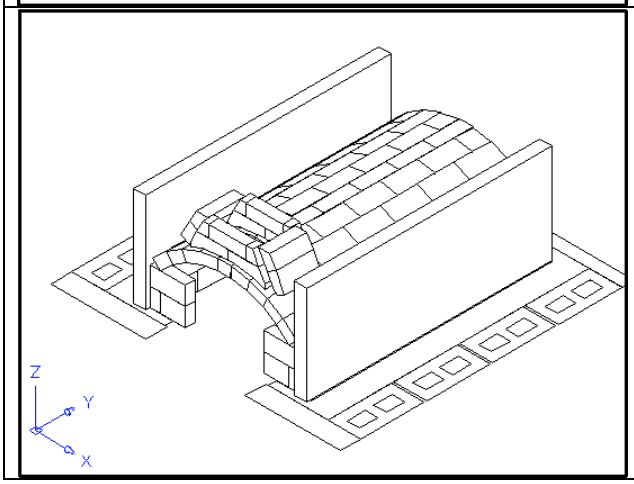
Energy Solutions

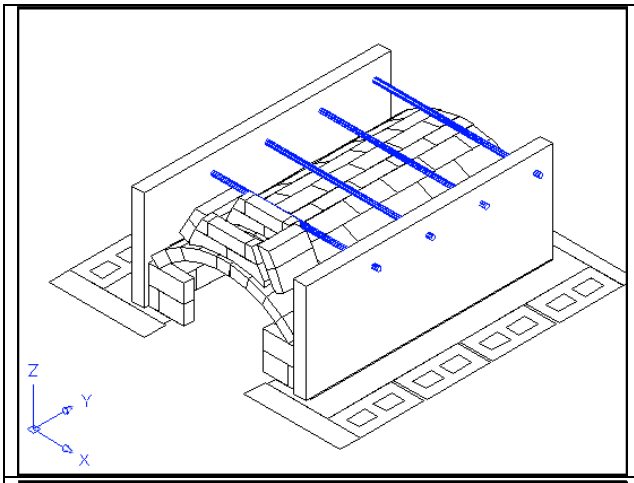
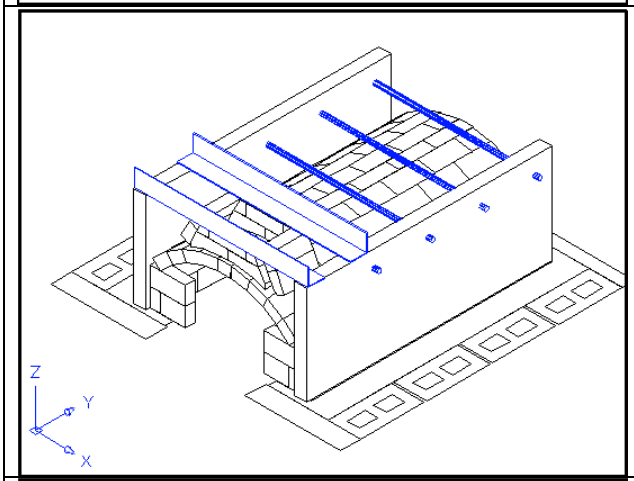
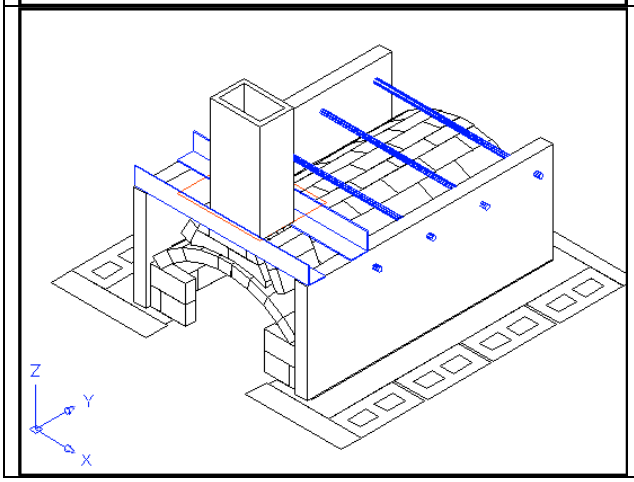
Voice 819.647.5092
Fax 819.647.6082
mheat@mha-net.org
www.heatkit.com

Domestic Oven – Preliminary Assembly and Structural Scheme for Oven Vault and Chimney

	Plan Section at vault side walls
	
	(Hearth is not shown yet) Baking chamber side walls are built from 2.5” thick firebrick shiners (standard size for firebrick is 4.5""x 9"") End wall is running bond, 4.5” thick, not bonded to side walls. End wall will be finished with a rounded fill piece to fit the vault.

	Vault is 2.5” thick firebrick. Brick taper is ½” over 2.5” , or ¼” per side. All taper cuts can be precut with a single setup on the wetsaw.
	Gas exit detail.
	Transition.

	Transition, (Not shown): 4” Foamglas butressed against castable refractory walls (see below) is used to retain the angled bricks.
	
	Reinforced 3” thick walls are cast from high temperature concrete (castable refractory). These walls should probably be cast first, to provide restraint for the vault during construction. Mason can decide. These walls are connected at the bottom to the reinforced castable refractory sub-hearth (not shown).

	1” i.d. metal sleeves are cast into the walls. ¾” threaded rod is inserted through the sleeves, and fixed with washers and nuts on the outside
	4” x 4” x ¼” angle iron is used to carry the chimney to the top of the first floor, at which point it is carried by a concrete slab. The frontmost angle iron is pinned into the concrete to act as a tension member. A ¼” ceramic wool expansion joint is used between the throat transition and the bottom of the angle irons.
	The flue liners and surrounding brickwork (not shown) are carried by the angle irons.