

MEMORANDUM To: Dr. Jennifer Tanner  
From: J. McKee, M. Lujan, J. Reimer, K. Waili, A. Tufte  
Subject: Masonry Arch Project  
Date: November 2, 2005

Dr. Tanner,

The first step for this project is to build a construction platform. The formwork will consist of two semicircles made of plywood, which will be connected with wooden cross members. For the arch, we will start with laying the bricks at the ends of the jig in a header orientation, which will be the legs of the arch. We will use Type M mortar mixed by proportion. The mortar will be applied to the bed face of the brick and laying each course of brick on each side until they meet at the peak of the arch. This system will be left on the form in a room that will have a constant temperature and humidity until cured.

- 1 Material Required  
We will need 23 units, plywood, and mortar
- 2 Equipment Requires  
We will need a mortar mixer, mortar tools, saw to cut plywood
- 3 Construction Technique  
Start from the bottom and work our way up
- 4 Mortar Type  
Type M mortar
- 5 Curing Considerations  
Place in a wet room
- 6 Plans to Move Into Place  
Build on a plywood board, move by carrying board to testing site
- 7 Weight of Arch  
23\*weight of brick + mortar
- 8 Possible Behavior of Arch (Location of Cracks)  
It will possibly bow out on the side about 14 in. up

