

Edward N. Wood, P.E.

Wood Engineering, Inc.
CIVIL - MECHANICAL - STRUCTURAL
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April 1, 2008

Mr. Len Henrikson
American Safe Room, Inc.
868 Murdock Drive
Umpqua, OR 97486

Dear Mr. Henrikson:


The American Safe Room Door, described in your drawings numbered: SF-100A, SY-110A, and SF-120A, was analysed to determine its capacity to resist a load of 32,000 pounds applied at a point 48 inches above the base of the door.

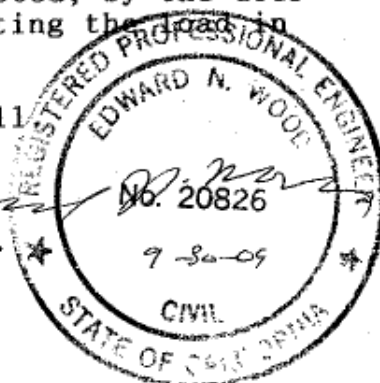
The door was considered to act as a simply supported beam, spanning the door opening. The steel plates covering a 4 inch thick Portland Concrete Cement (PCC) core, are 3/16 inch thick. The total door thickness is 4-3/8 inches. This beam was assumed to transmit the applied force to the four nearest pins and their supporting knuckles. The knuckles then are restrained by 5/8 inch diameter steel studs embedded 4-1/4 inches into Portland Concrete Cement walls with a strength of at least 2000 psi, then attached with Simpson Epoxy Cement.

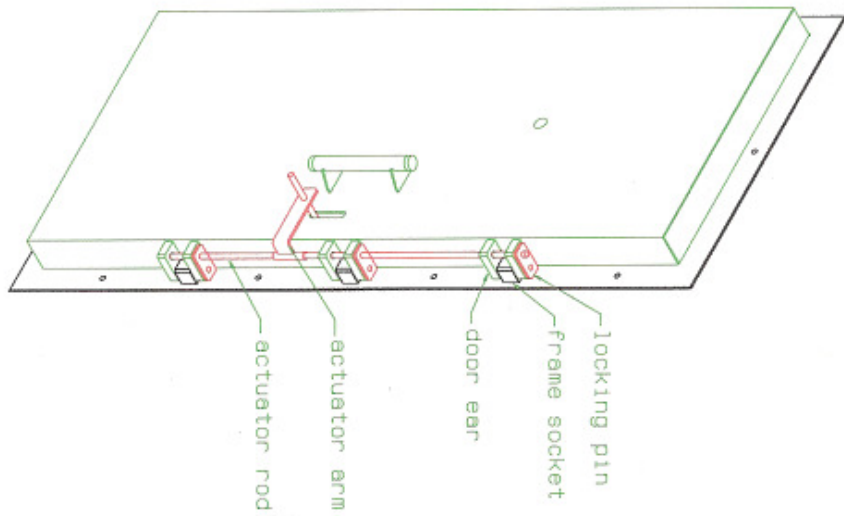
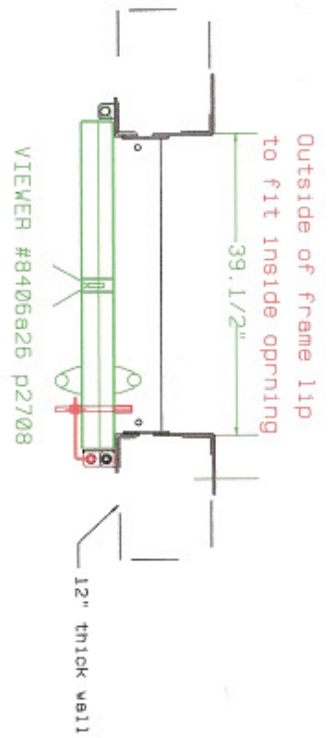
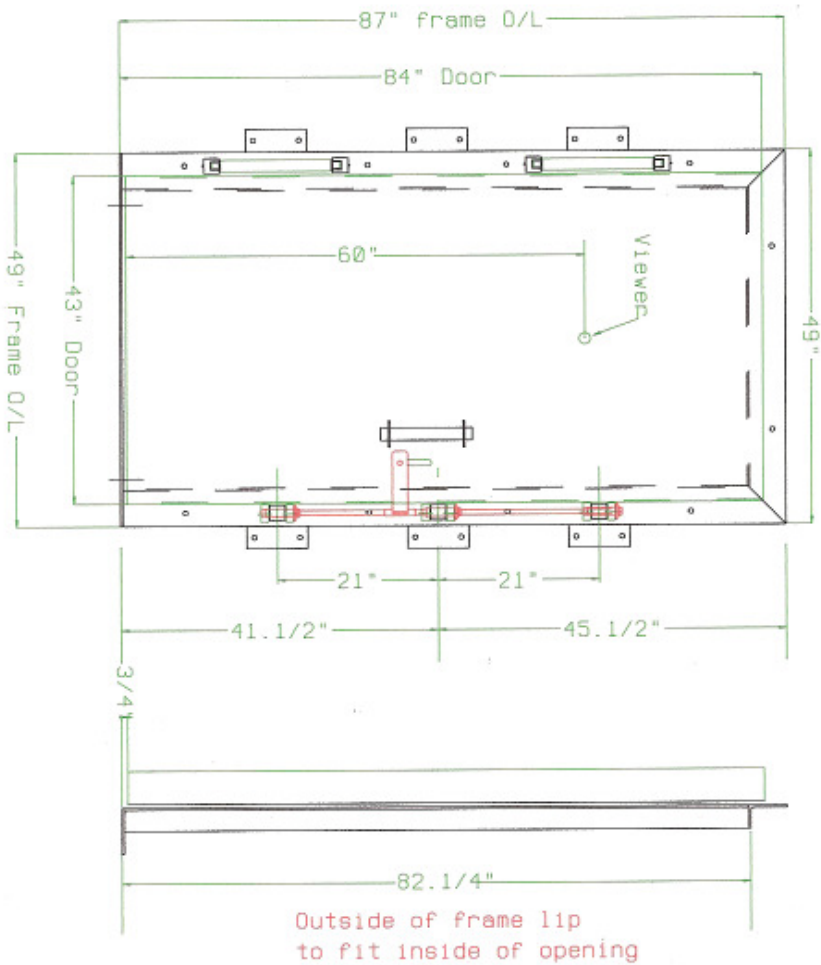
The analysis described in the above paragraph was performed, as is shown on the attached two pages of computations. This analysis shows that the four nearest hinge and latch pins and their associated knuckles are capable of resisting the 32,000 pound load applied at the center of the door, 48 inches above its' base. The studs, resisting the tension loads applied to the knuckles, will adequately resist these forces if the studs are installed per the manufacturer's instructions.

The associated requirement to resist a 2000 pound load in any direction will be performed by the same structure, and its supporting elements; the load being transmitted, by the door frame, to its' attachments, the studs resisting the load in shear.

If I may be of further assistance please call

Yours truly,

Edward N. Wood, P.E.

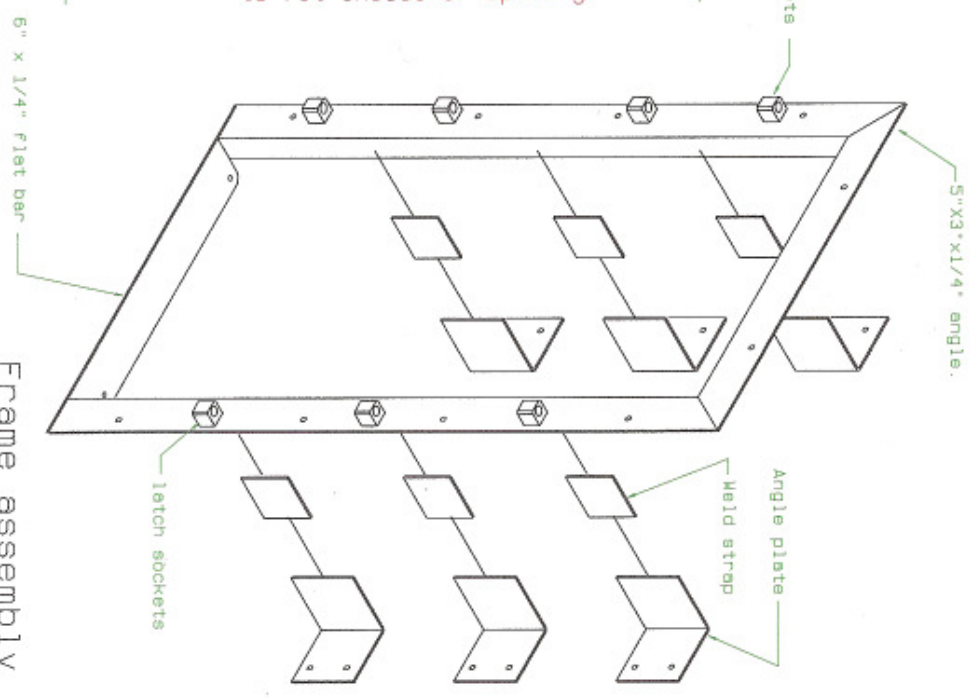
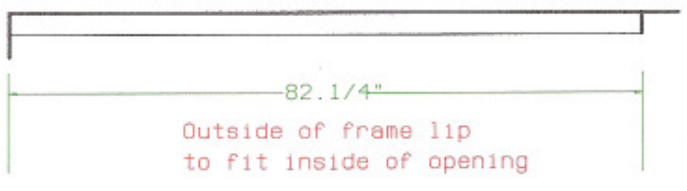
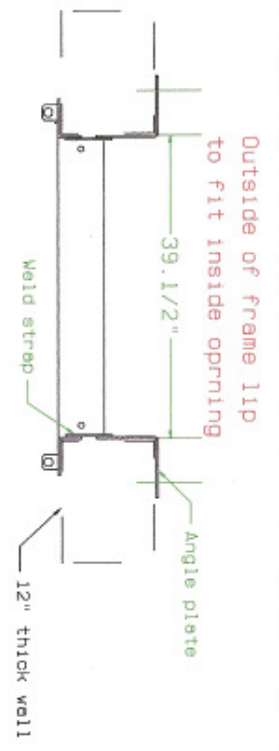
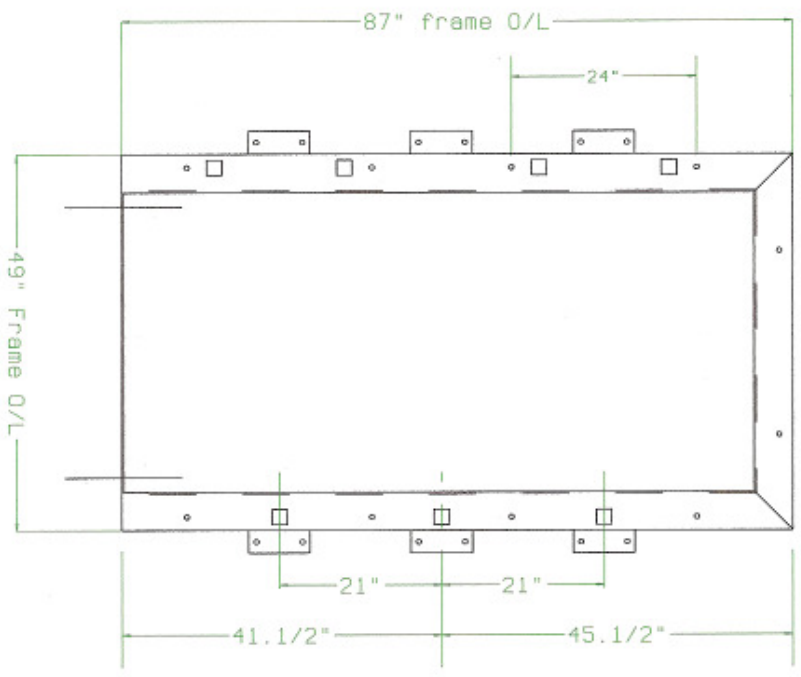




General

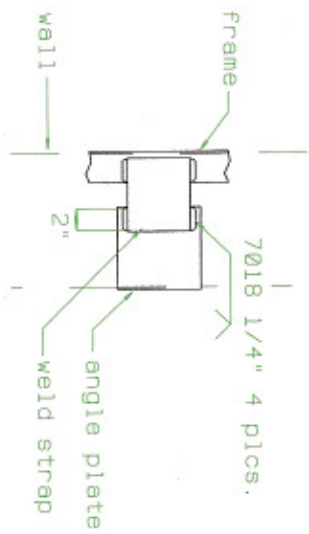
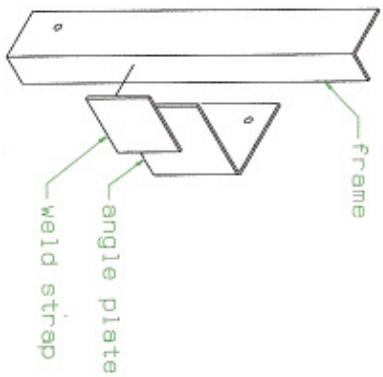
American Safe Room Inc.
Proprietary Information

Title Blast Door
Dwg. # SF-100A
Date 1-12-08 Rev.

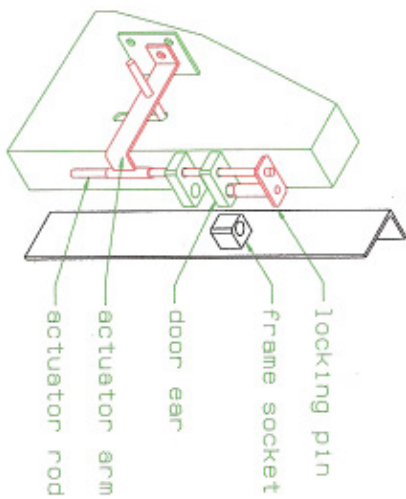
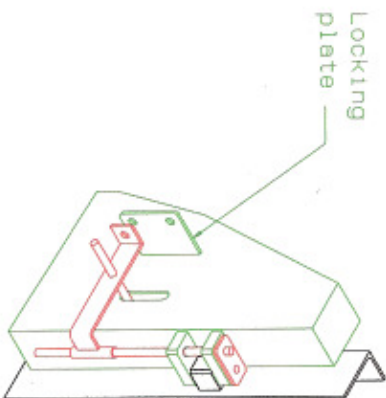


See weld detail Dwg. #SF-128

Frame assembly
 American Safe Room Inc.
 Proprietary Information
 Title: Blast Door
 Dwg. # SF-110A
 Date: 1-12-08 Rev.



Angle brackets and weld plate details



Latching system detail

Details

American Safe Room Inc.
Proprietary Information

Title Blast Door
Dwg. # SF-120A
Date 1-12-08 Rev.