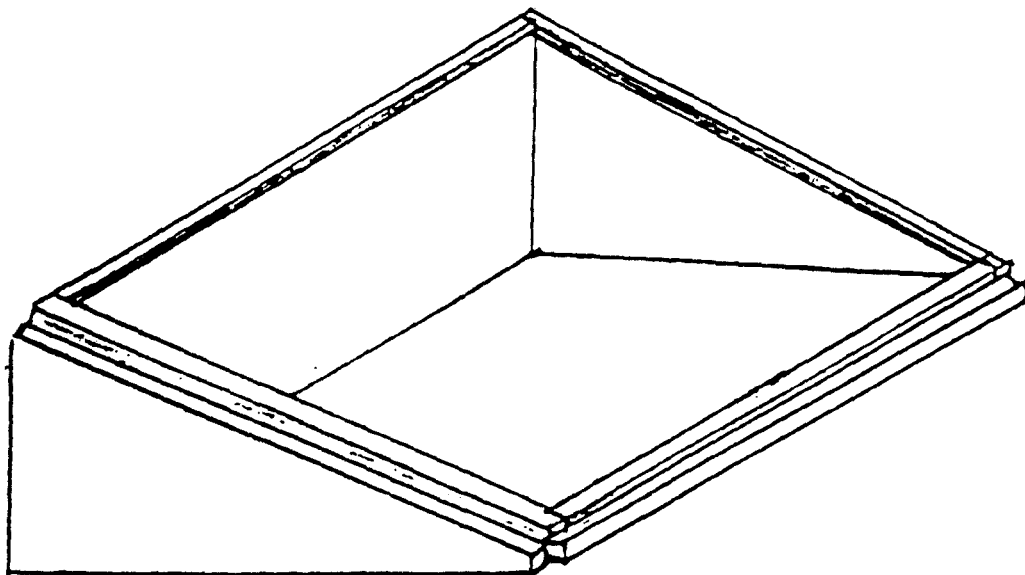


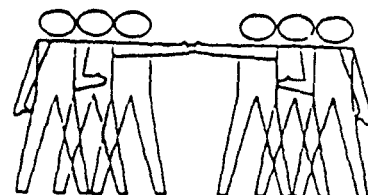
Cooking with rays of the sun

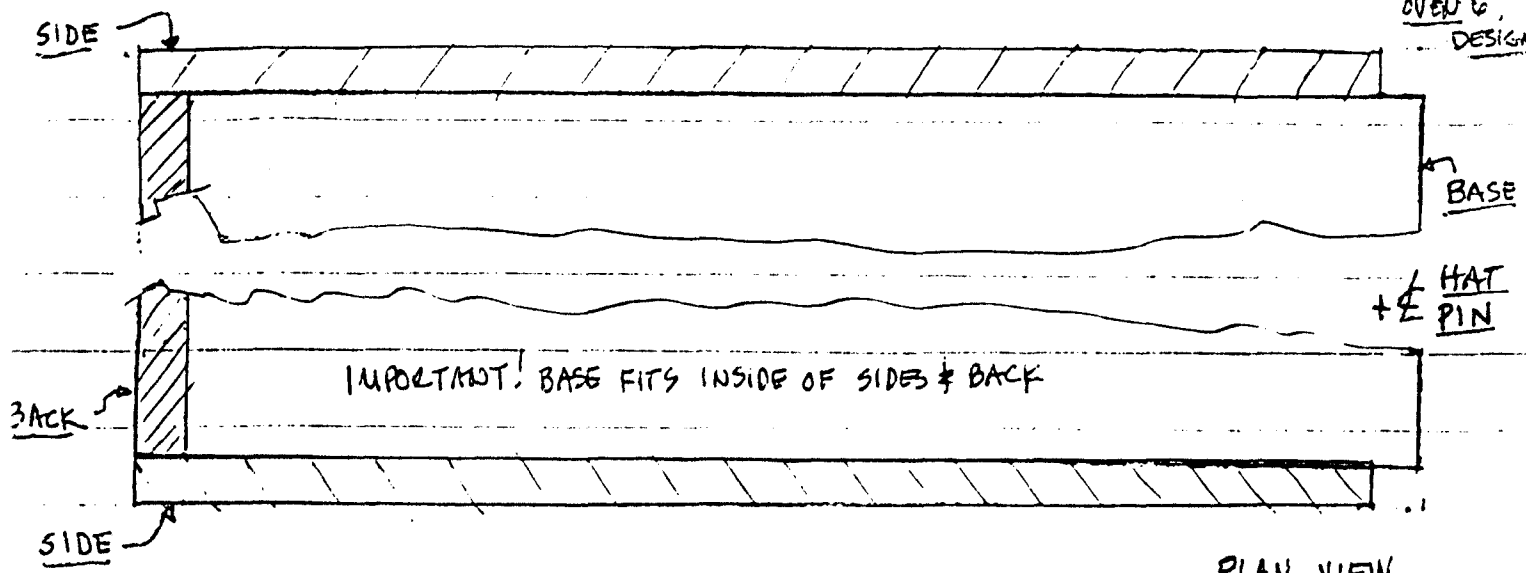


**RHODE ISLAND
SOLAR ENERGY ASSOCIATION**

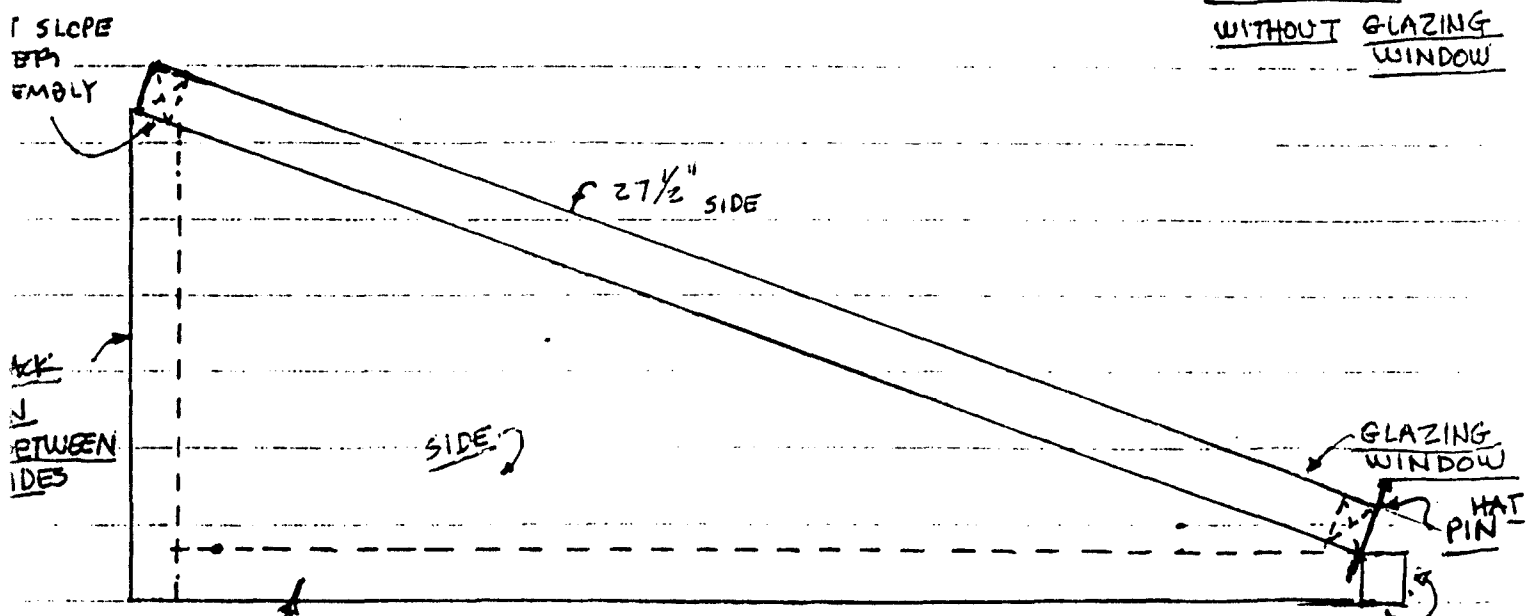
42 TREMONT STREET
CRANSTON, RI 02920-2543

Let's Get Together!





PLAN VIEW
WITHOUT GLAZING WINDOW



SOLAR OVEN ASSEMBLY

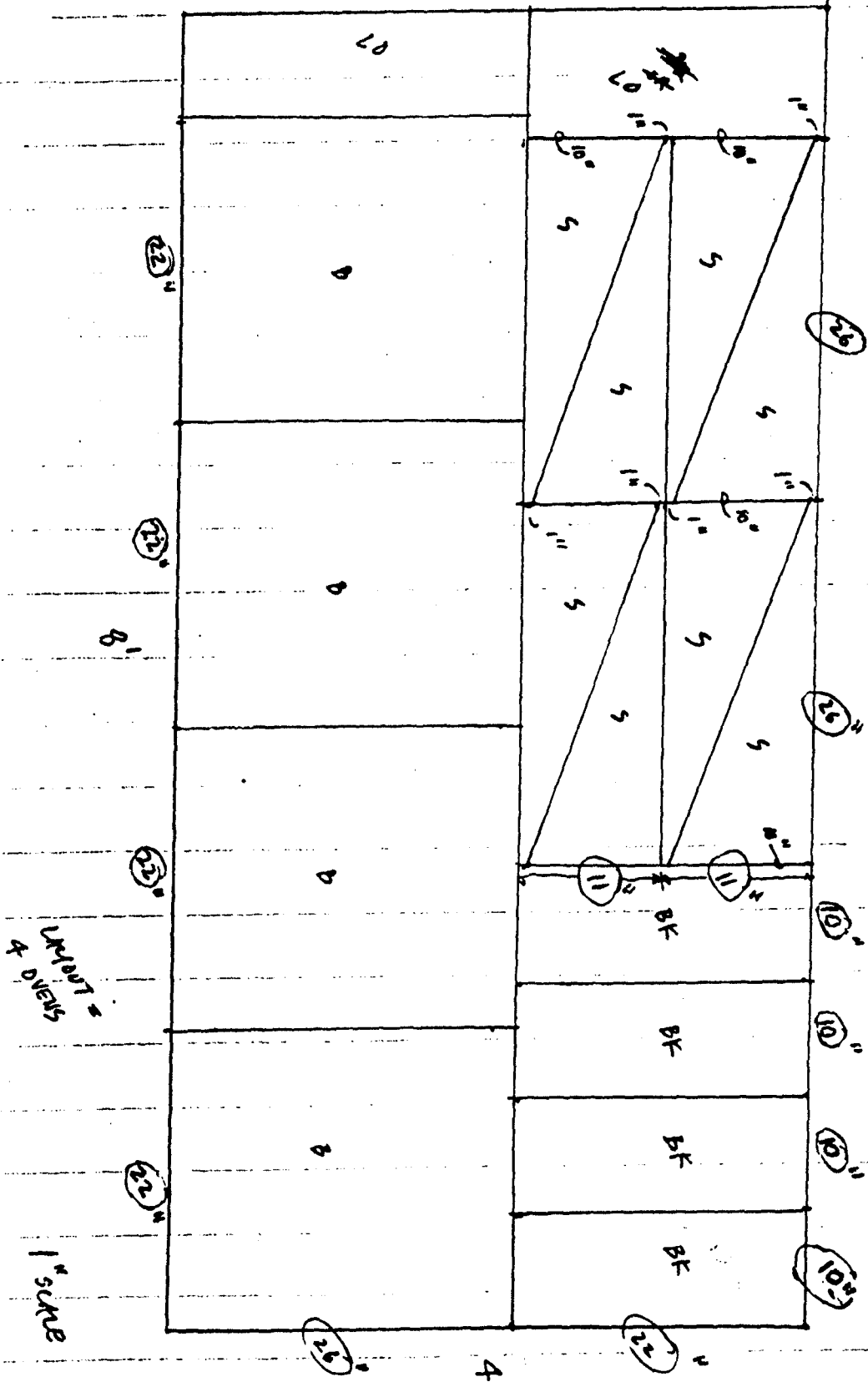
1/4" = 1" SCALE

SIDE VIEW

BASE MUST PROJECT OUT 1"

NAME	SIZE	SHAPE	REQ
SIDE	26 x 10 x 1		2
BASE	26 x 22		1
BACK	10 x 22		1
GLAZING WINDOW	27 1/2 x 23 1/2		1

NOTE: SEE SKETCH " CUT OUT PLAN



WHEN: WITH 2 SHEET ONLY
 CUTTING OUT SIDES
 REVERSE 1 SHEET SO
 ALUM NOT HAVE PRINTING

LEGEND

- BK BACK
- B= BASE
- S= SIDE
- LO= LEFTOVER

OUT OUT PLAN 1/8\"/>

FIBERGLAS FOIL FACE EACH SIDE
 4' x 8' x 1" RIGID INSULATION,
 PIECES CUT AT LUMBER YARD = 26" x 8'

1/2" IS 2 MCKENDALL LUMBER

Obtain a 4' x 8' x 1" thick rigid fiberglass insulation board aluminum foiled face each side from a lumber yard. It must be flat & undamaged. After study of page 2, sketch PG 2, pieces be cut sharp, clean, & smooth. 4 ovens can be made and do share cost & experience with others.

For one oven, assemble two sides, one base & back piece per page 1, sketch PG 1. With another person holding the pieces, tack aluminum tape section of 2 inches long at OUTSIDE edges making the unit flat & square. Then tape all outside edges with a continuous closure. The assembly oven is now sealed.

The glazing window frame is made of 1" x 1" hard straight wood with 2 pieces 27 1/2" long and 2 pieces 23 1/2" long. Fasten corners with 2 wood screws & be sure to pre drill holes to prevent splitting. Frame must be flat & square.

The glazing window can be any clear heat tolerant material good to 400F that can be single or doubled with an air insulation space and suggest turkey oven wrap & check with a restaurant supply store. Glass is very dangerous. Apply wrap securely to frame & seal all openings with celophane tape or cut narrow strips of the aluminum tape. Always protect the window from punctures.

Place the empty oven assembly in direct sunlight to outgas the insulation binders for a minimum of 5 days. Align oven parallel to the sun shadow line & rotate oven every 20 minutes to be central to the sun's rays.

An oven thermometer 100 to 600F range (K Mart \$2) is a must. All cooking containers be black, non-stick inside/outside surfaces. Pizza trays (Sears \$4). There must not be any interior contact to the glazing window, so watch height of containers used.

When using the solar oven be certain to wear a visored hat and good sun glasses. Use mother's oven mitts when handling hot containers. Temperatures range from 200F on cloudy days to 300F+ on clear sun days. Oven bags are quite useful.

A reflecting mirror can be constructed for higher oven temperatures, but windy days can be a problem because the solar oven is quite light weight. Even without a mirror, the oven should be kept close to the ground and protected from strong winds.

Experiment first with the baking of apples. Watch the temperature, lign up the oven to central face the sun. The apples will begin to change color from red to light brown to full brown and takes 2 to 3 hours, depending on cloud cover. Next try potatoes.

Please note: Read the instructions several times. Study the cut out sketches and Solar Oven Assembly. Learn from one oven at a time.

Good luck as you improve your solar horizon. Become a solar enthusiast and recruit others, especially the young. Solar saves energy and the global climate.