

KILN PLAN

for CLEVE AREA POTTERS CLUB.

SPECIFICATIONS:

STONEWARE KILN OF

APPROX 25 CUBIC FT CAPACITY

WITH 20 CUBIC FT STACKING AREA.

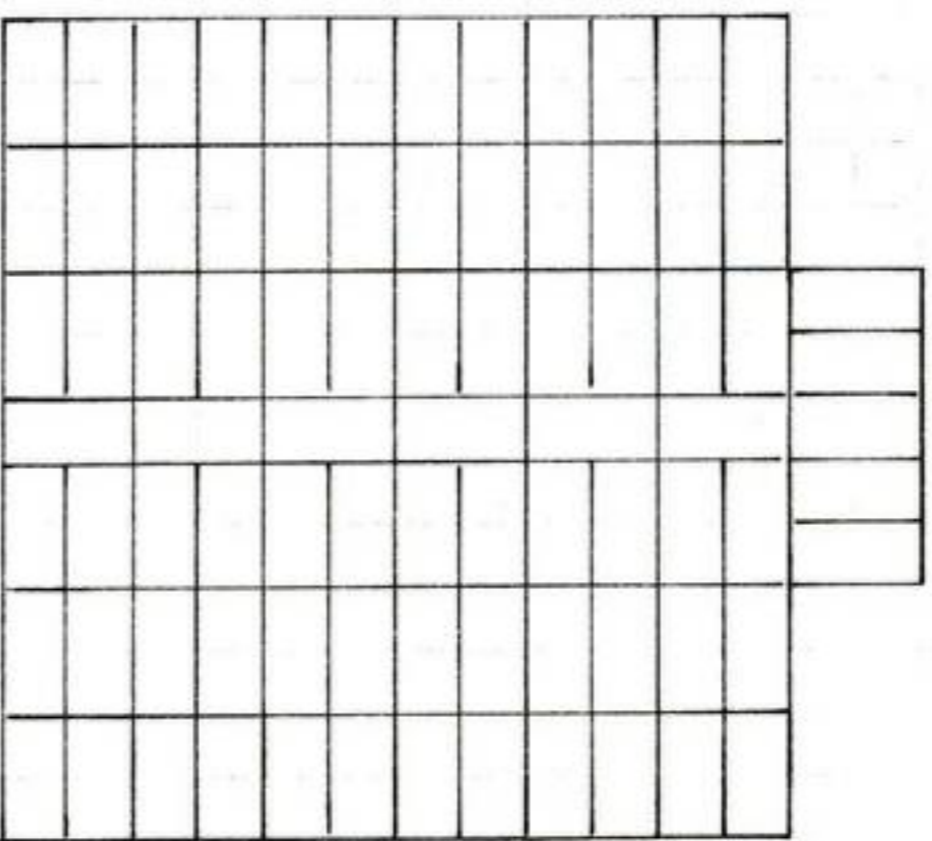
CONSTRUCTED OF INSULATING BRICK
WITH 3" SPRUCE ARCH.

USING FLOOR PLAN OF 4' x 15" SQUARE
KILN SHELVES.

FIRED WITH L.P. GAS USING TWO TMSO'S.

DESIGNED: J. COULTER. HECTOR I CERAMICS, IFE.

BUILT: CLEVE AREA POTTERS CLUB
AND ASSOCIATES. 1977....

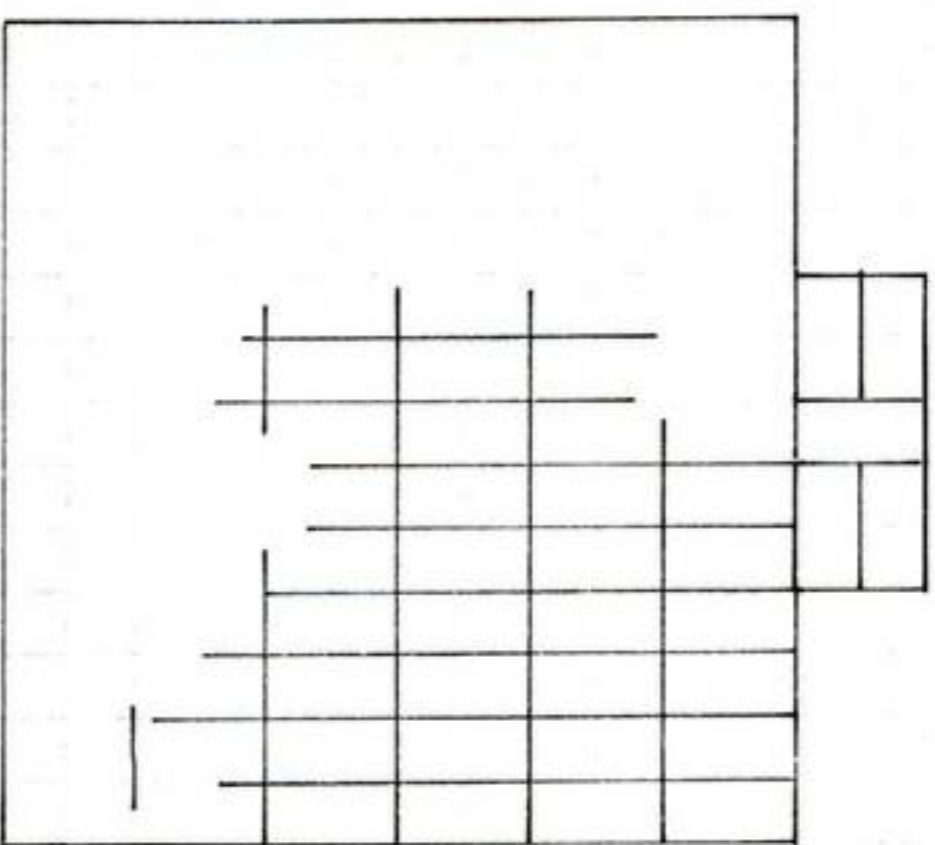


FOUNDATION, KILN FLOOR

DIMENSIONS APPROX 58.5' DEEP BY 63" WIDE DEPENDING ON BRICK SIZES (THEY VARY WITH DIFF MANUF.)

THE FLOOR SHOULD BE EITHER INSULATORS OR HIGH DENSITY F/B. PLACED ON CONCRETE SLAB OR BESSER BLOCKS. ABOUT 5' SQUARE 8" TO 10" THICK. (SEE SUB-FLOOR)

N.B. OVERLAPP JOINTS OF SUB-FLOOR BRICKS. 83 BRICKS.

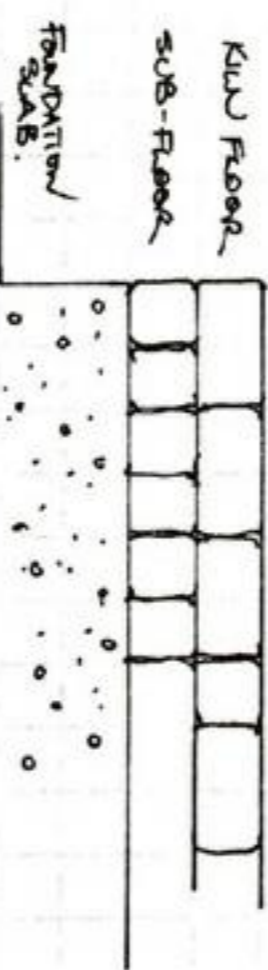


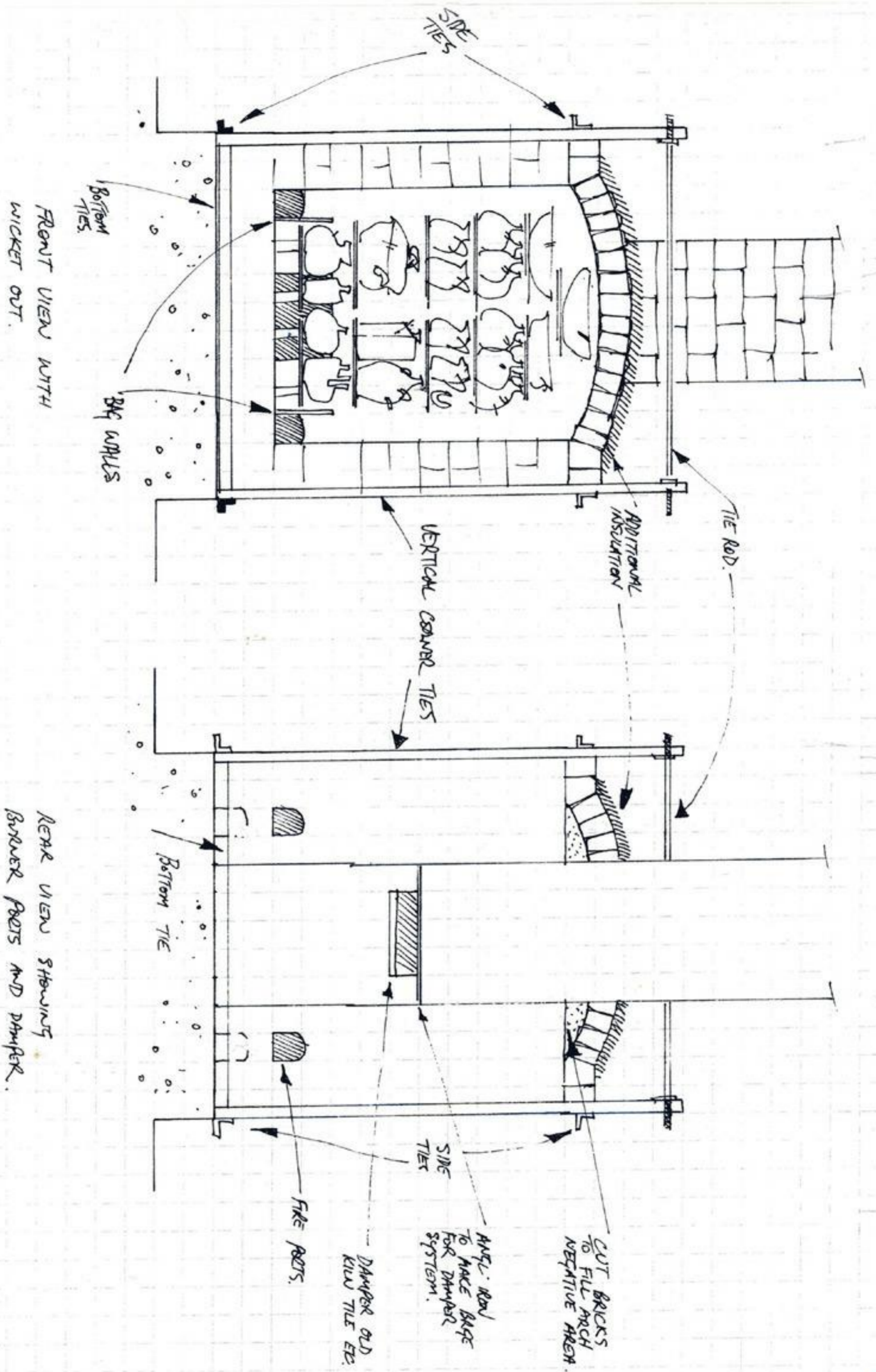
FOUNDATION, SUB-FLOOR

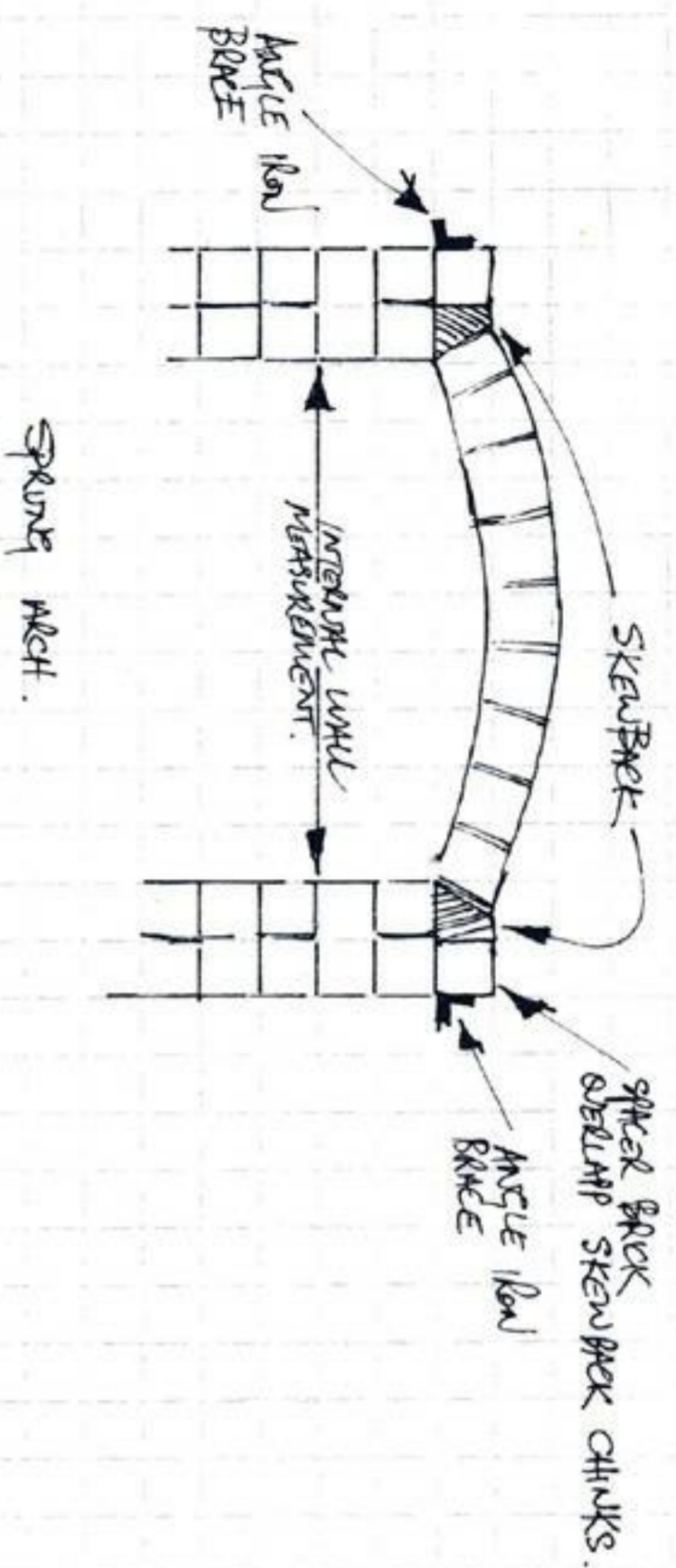
WHILST THIS SUB-FLOOR IS NOT ALWAYS NECESSARY ON SOME KILNS, IT IS RECOMMENDED FOR THIS KILN.

IT CAN BE CONSTRUCTED FROM ANY CHEAP OR SLIGHTLY DAMAGED REFRACTORY AND IS LAID DIRECTLY ONTO THE FOUNDATION/SLAB OR BESSERBLOCK. ASSURE THAT ALL LAYERS ARE AS LEVEL AS POSSIBLE.

83 BRICKS.

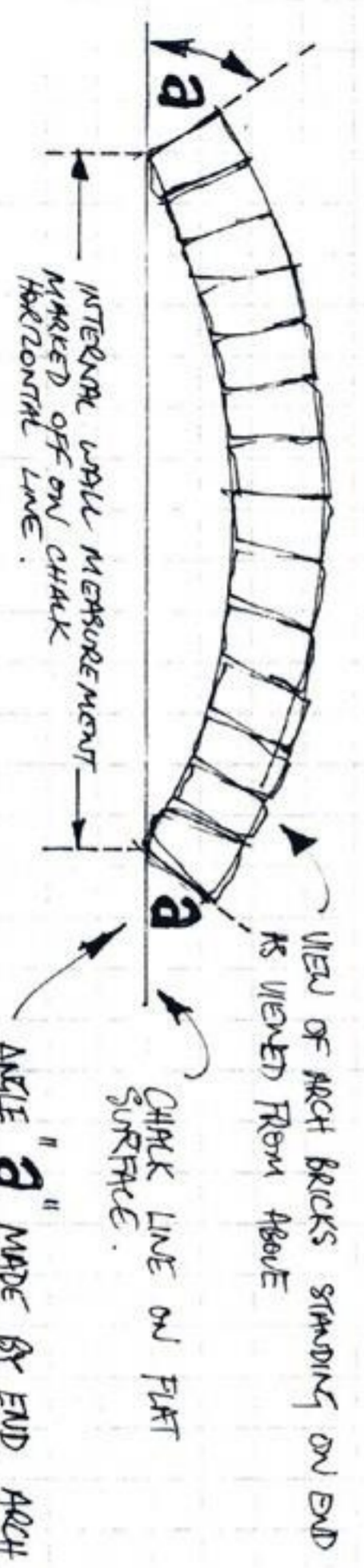






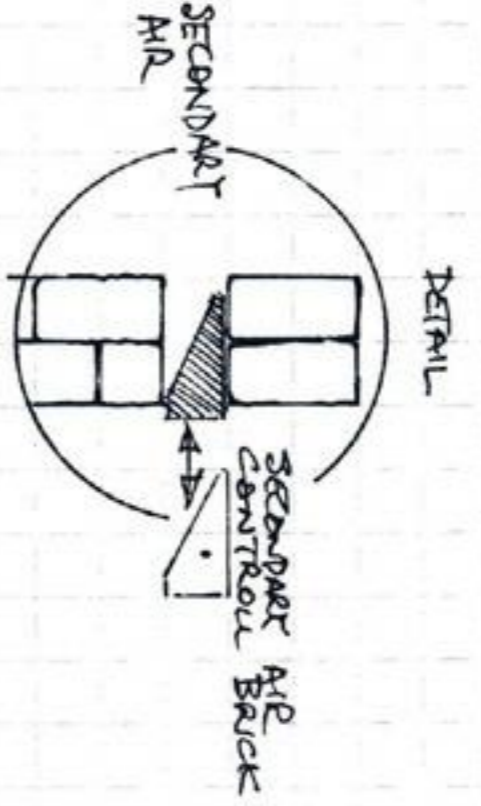
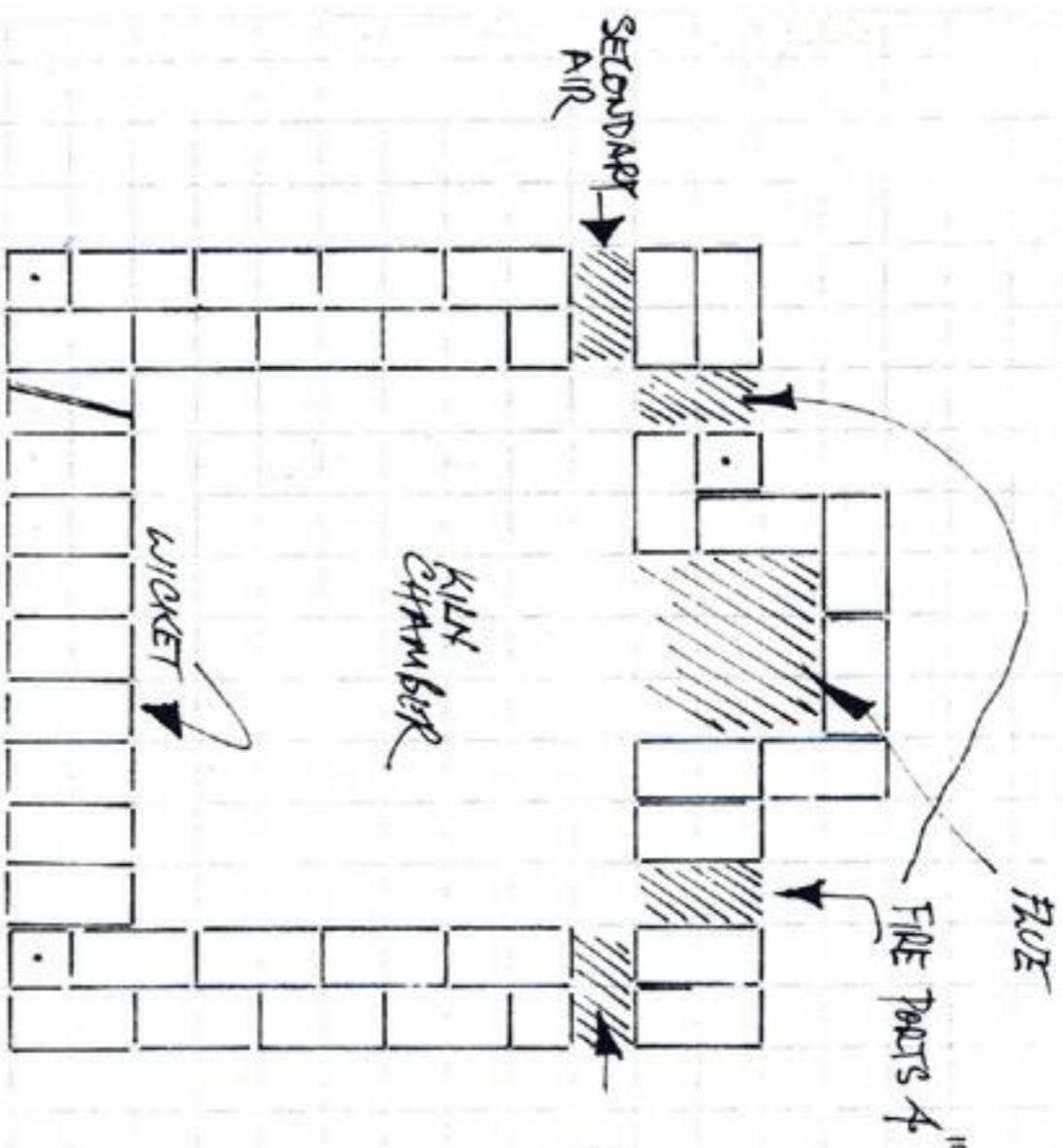
METHOD TO CALCULATE SKEWBACK ANGLE.

1. MEASURE INSIDE WALL WIDTH.
2. LAY ARCH BRICKS ON END, SO THAT THEY MAKE AND END SPAN OVER THIS LENGTH.
3. THE ANGLE THAT THE END ARCH BRICK MAKES WITH THIS HORIZONTAL LINE INDICATES THE ANGLE OF THE SKEWBACK. SEE DIAG.



NOTES

- ▶ ANGLE ROW BRACES + CORNERS, THE BEDS ARE ALL FIXED INTO PLACE BEFORE ARCH IS DROPPED INTO PLACE..
- ▶ A DAMPER SYSTEM SHOULD BE INCORPORATED INTO STACK AT ABOUT 6TH LAYER
- ▶ MINIMUM HEIGHT OF STACK IS 3' OF STACK FOR EVERY ONE FOOT OF DOWNWARD PULL—
- ▶ THE ARCH CAN BE COVERED WITH ANOTHER LAYER OF INSULATING BRICK OF FIBRE BUCKET TO PREVENT HEAT LOSS.
- ▶ BRG WALLS MAY BE MADE OF OLD KILN SHELVES, HEIGHT FROM ABOUT 9"
- ▶ ANGLE ROW SIDES. about 2' x 2' ANGLE. CORNERS (VERTICAL) 4 BT 54" SIDE TIES (TOP + BOTTOM) 4 BT 54" BOTTOM TIES (FRONT + BACK) 2 BT 58" TIE RODS (TOPS ONLY) 2 BT 60" 3/8" M/S ROD WITH THREADED ENDS.
- ▶ FILL IN BACK AND FRONT OF ARCH WITH CUT SHAPED BRICK, CASHTABLE REFRACTORY CAN ALSO BE USED.



1ST LAYER OF BRICKS.

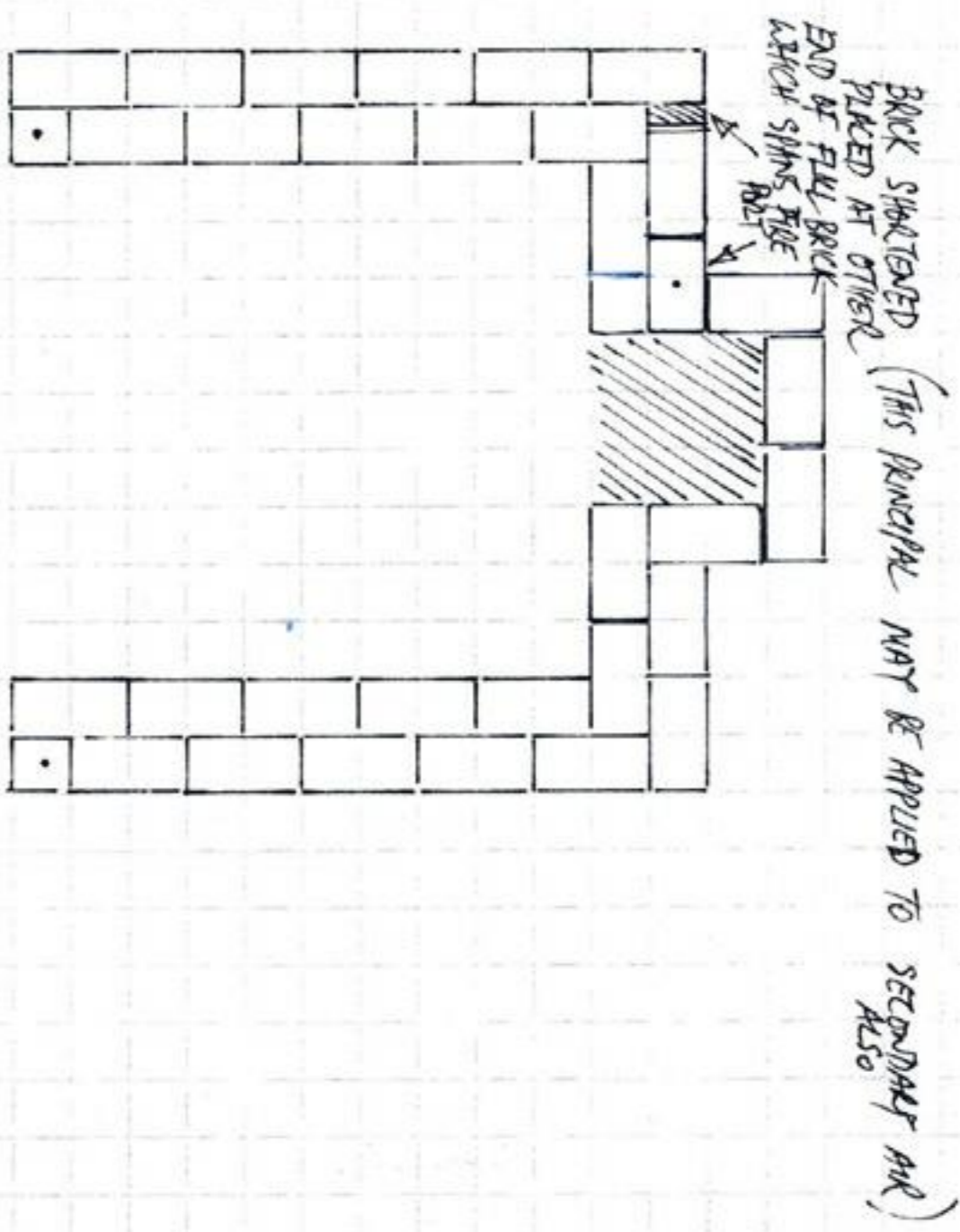
THIS INITIAL LAYER SETS LAYOUT FOR THE KILN CHAMBER SIZE AND ?

FLUE PORTS
SECONDARY AIR PORT
FLUE + DOOR LOCATION!
SO IT MUST BE WELL THOUGHT OUT.

LAY THE WICKET (DOOR) WITH EACH COURSE TO ENSURE THAT WALLS ARE TRUE, INCLUDING SPLITTERS FOR WICKET TIGHTENING.

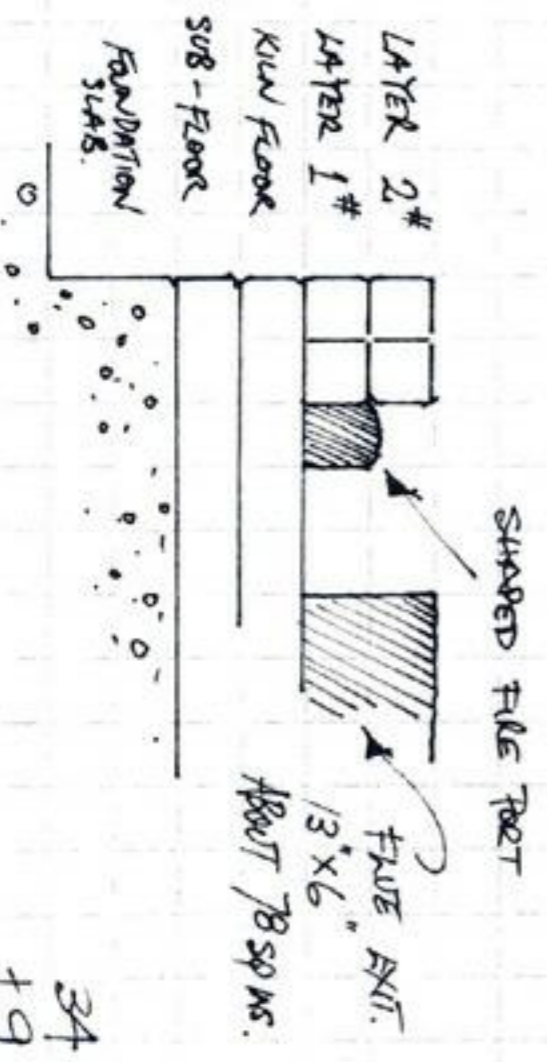
□ INDICATES HALF OR SHAVED BRICK.

- 30 BRICKS
- + 9 DOOR (WICKET)
- 39 BRICKS

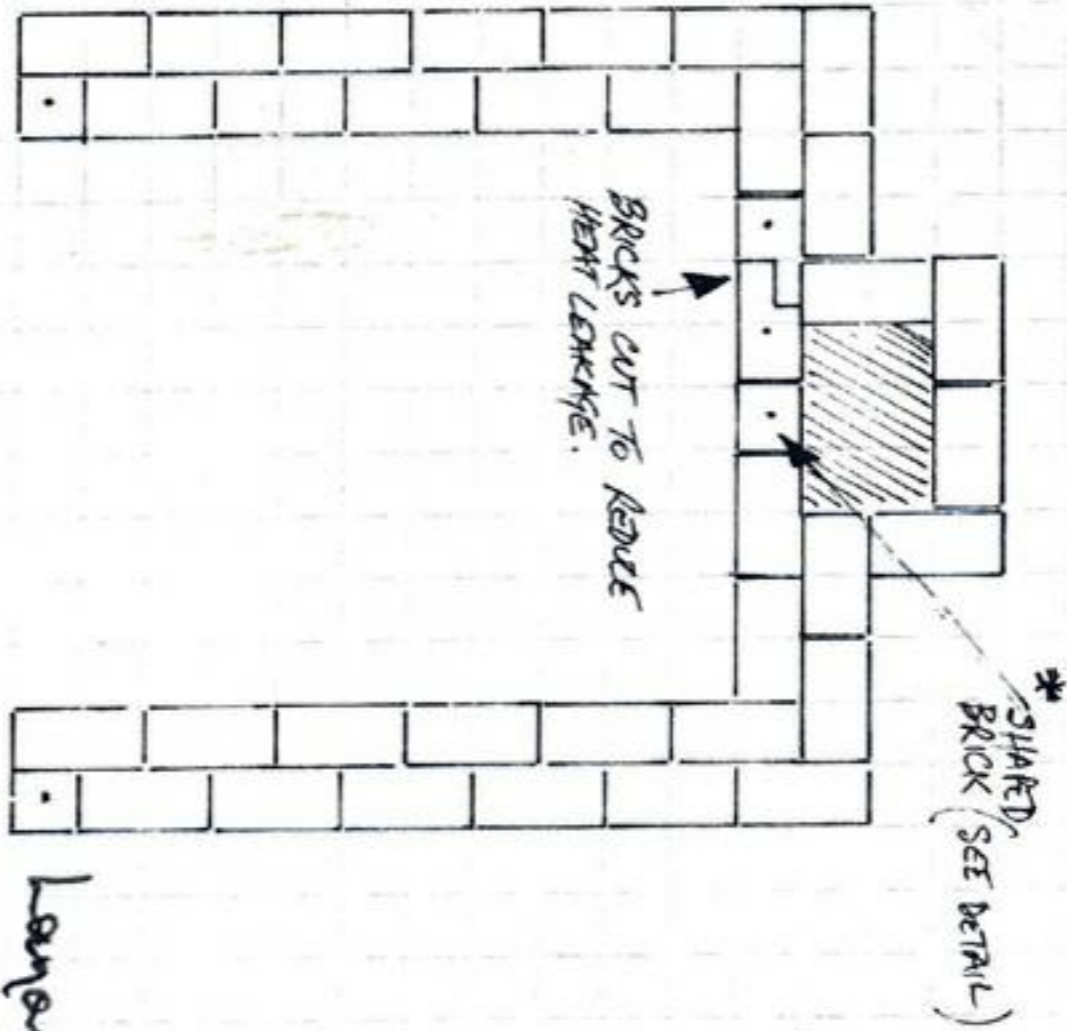


2ND LAYER OF BRICKS.

THIS LAYER INCLUDES THE BRIDGING OF FLUE PORTS AND SECONDARY AIR.

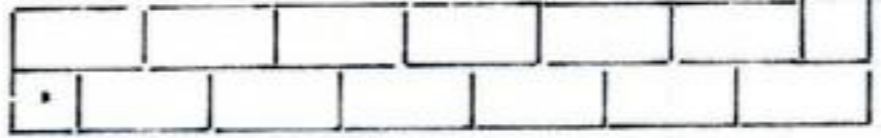


- 34 BRICKS
- + 9 WICKETS
- 43

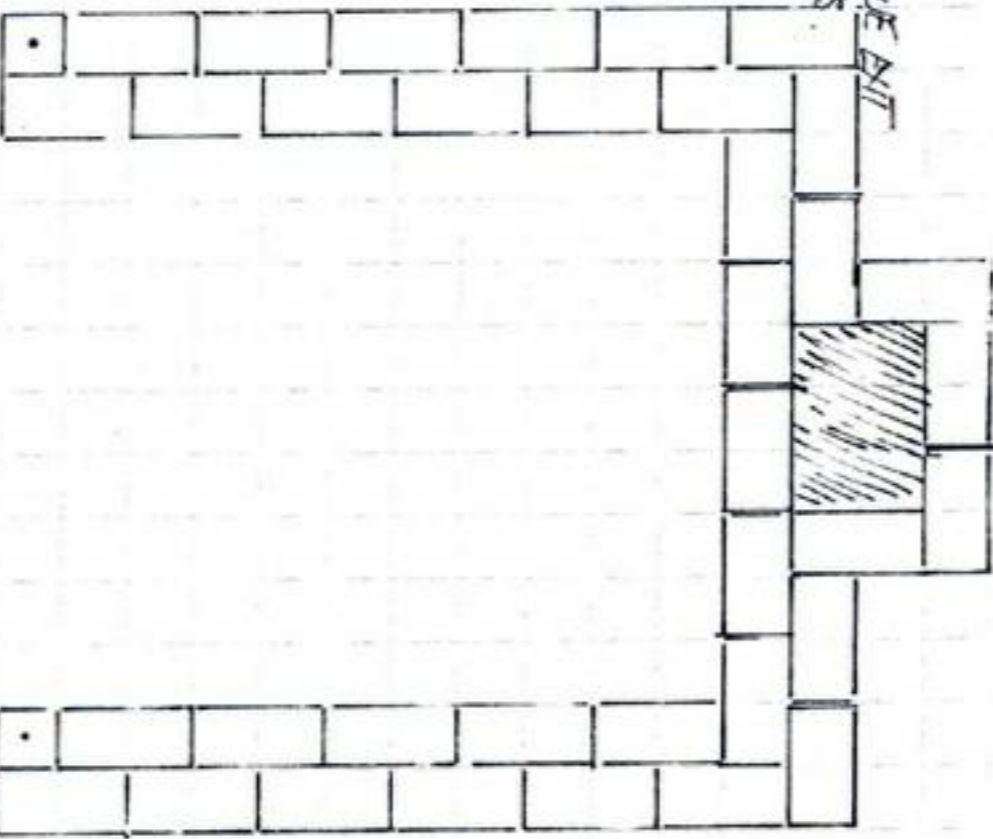
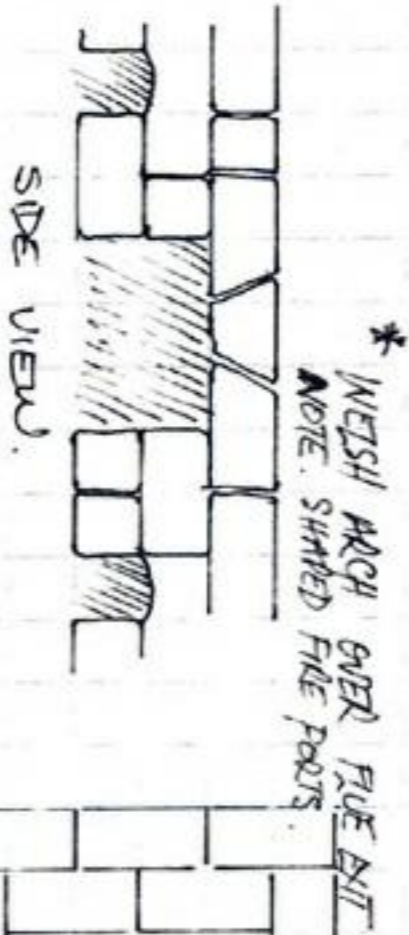


3RD LAYER OF WALLS

THIS LAYER INCORPORATES THE BRIDGING OF THE FLUE WITH A WELSH ARCH SYSTEM. FOR CUTTING INSULATING BRICKS A "BUSHMAN SAW" OR SOMETIMES CALLED "BOU SAW" IS HANDY.



Layout.
Same as in Layer 2#??

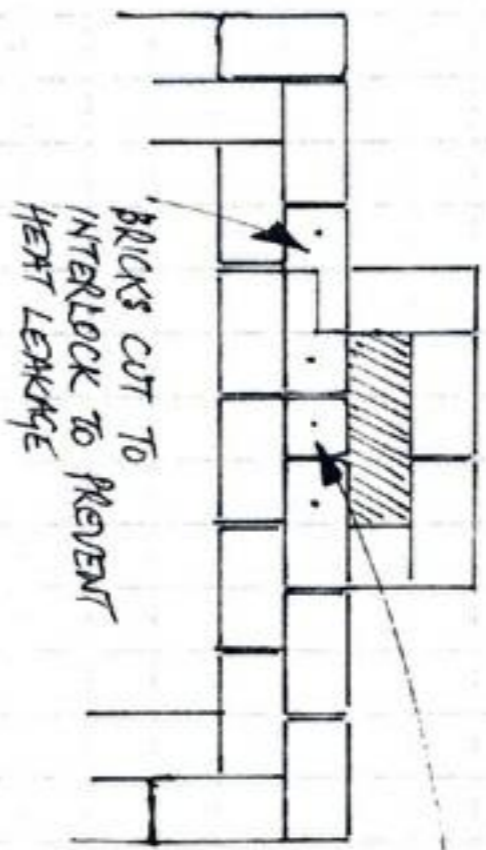


4TH LAYER OF WALLS

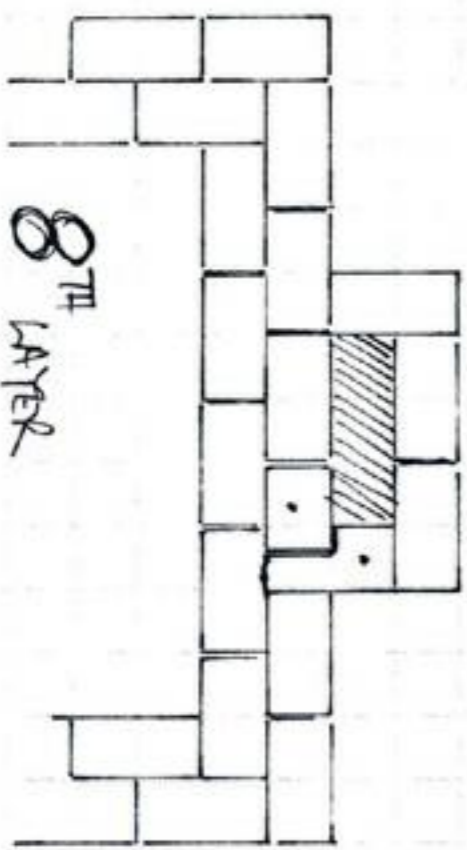
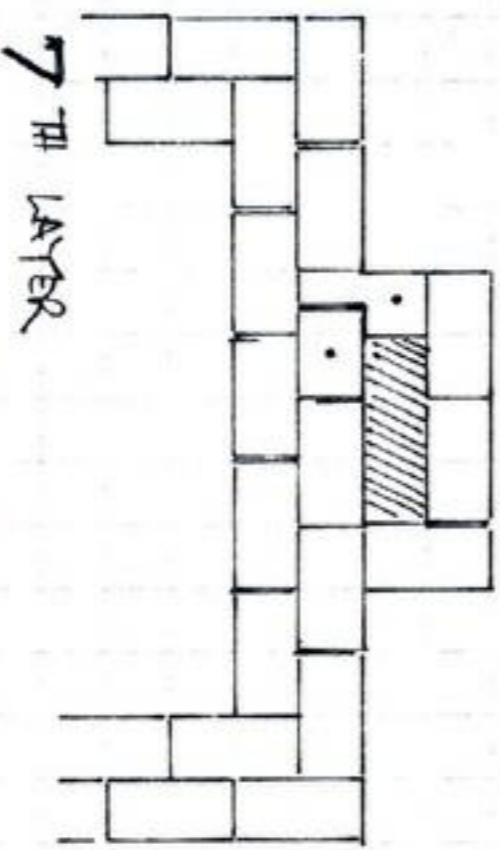
5TH LAYER WOULD BE A MIRROR IMAGE OF THE **4TH LAYER**...

36 BRICKS
+ 9 WICKET
45 BRICKS

AFTER THE 5TH LAYER
BEGIN REDUCTION STACK LAYERS: BELOW.

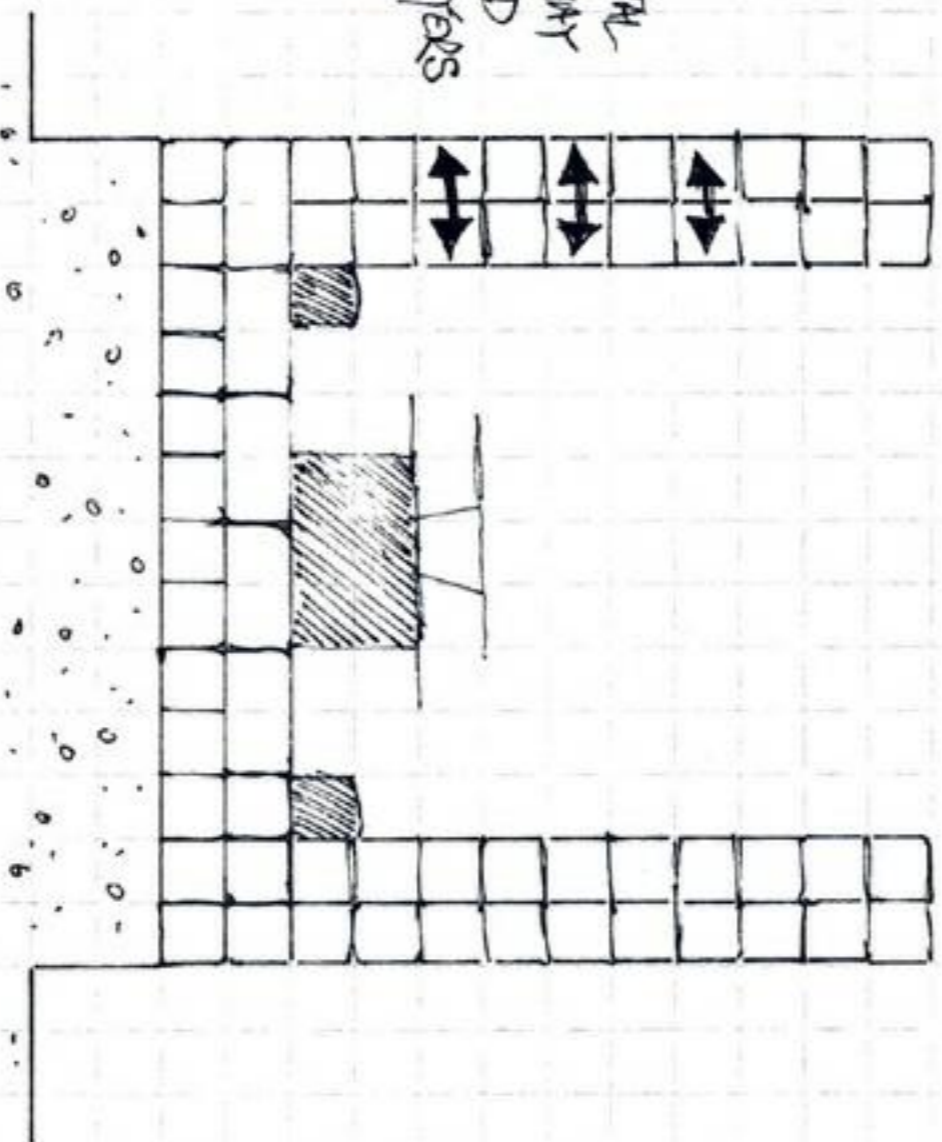


6TH LAYER



DETAILS SHOWING LAYERS IN THE
CONSTRUCTION OF THE REDUCED STACK
NOTE: INTERLOCKING BRICKS TO PREVENT
HEAT LEAKAGE INTO STACK FROM KILN CHAMBER.

A HORIZONTAL
THE LAYER MAY
BE INCLUDED
AROUND LAYERS
3, 5 & 7



CROSS SECTION OF KILN
VIEW FROM DOOR WITH WICKET
REMOVED.

- 10 40
 - 9 40
 - 8 40
 - 7 40
 - 6 40
 - 5 LAYER 40
 - 4 LAYER 40
 - 3 LAYER 40
 - 2 LAYER 39
 - 1 LAYER 43
 - KILN FLOOR 45
 - SUB-FLOOR 40
 - SLABS. FOUNDATION 33
- TOTAL 625
[TO TOP WALLS INC. WICKET.]