

NOTE:  
CONSULT LOCAL AND STATE ZONING,  
HEALTH AND POLLUTION AUTHORITIES  
BEFORE STARTING CONSTRUCTION

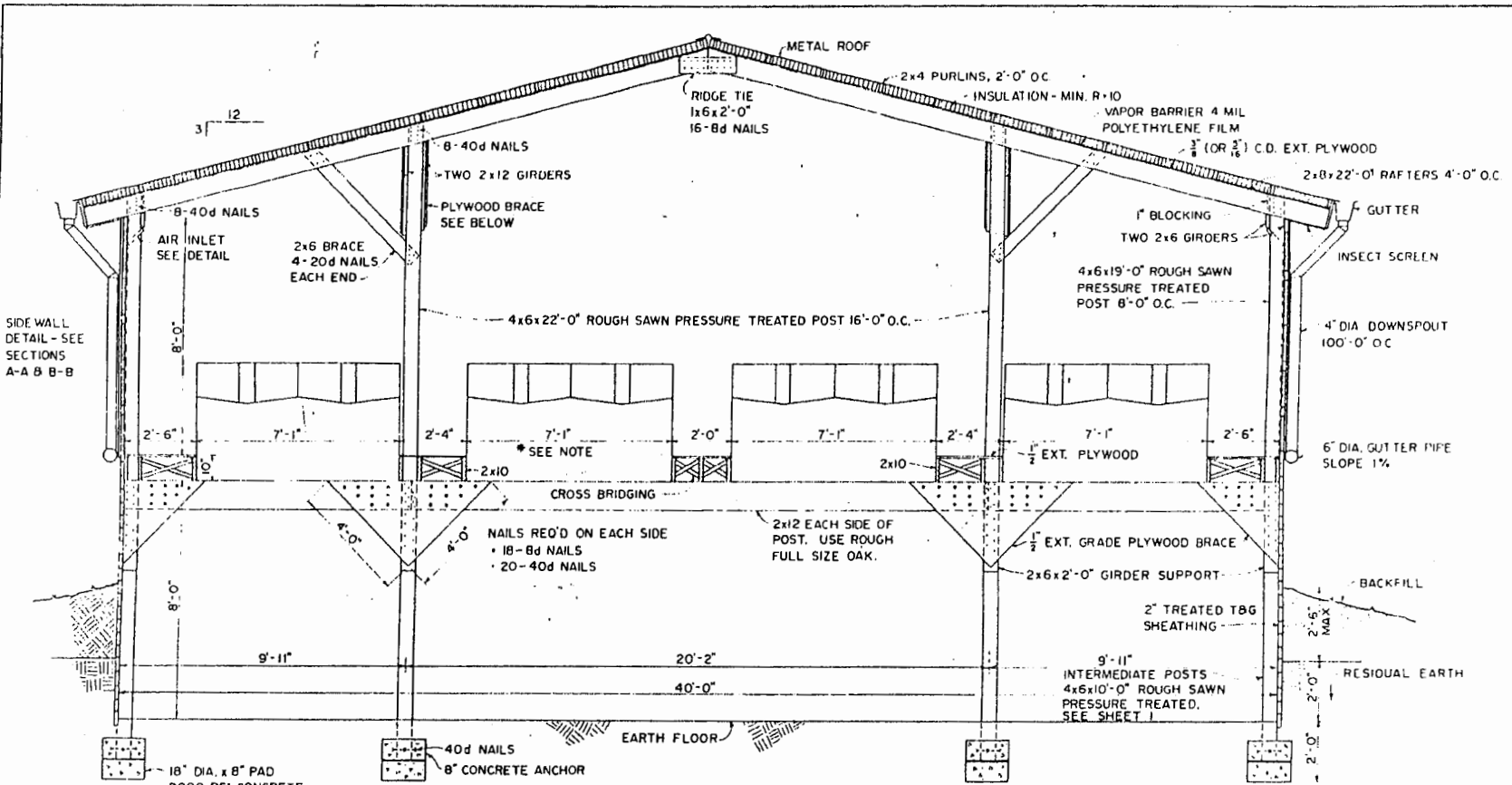
BASED ON VPI PLAN F-1.50



FLOOR PLAN  
SCALE: 1/4" = 1'-0"



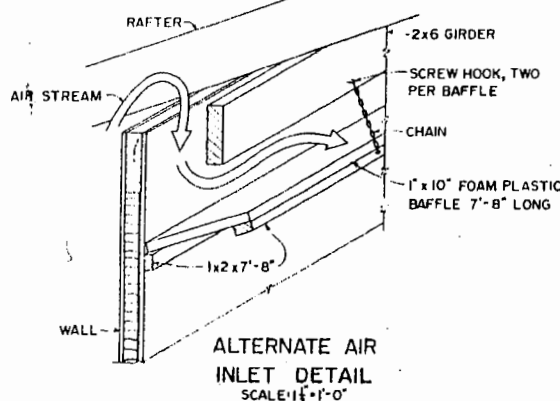
POULTRY HOUSE  
CAGED LAYERS - DEEP PIT  
VA. '72 EX 6140 SHEET 1 OF 3



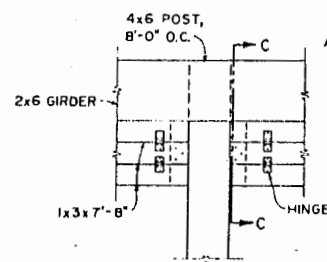
SIDE WALL  
DETAIL - SEE  
SECTIONS  
A-A & B-B

**TYPICAL CROSS SECTION**  
FLAT DECK-FULLY AUTOMATED  
CAGED LAYER HOUSE WITH  
DEEP PIT  
SCALE:  $\frac{1}{8}'' = 1'-0''$

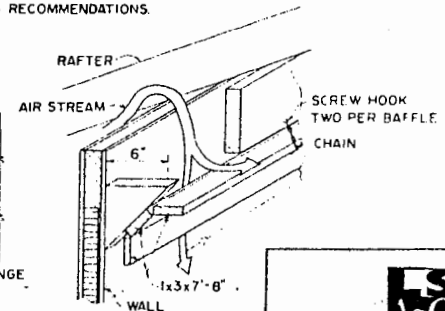
\*NOTE:  
WIDTH MAY BE VARIED TO FIT DIFFERENT  
MANUFACTURERS EQUIPMENT. FOLLOW  
MANUFACTURERS RECOMMENDATIONS.



**ALTERNATE AIR  
INLET DETAIL**  
SCALE:  $1\frac{1}{2}'' = 1'-0''$

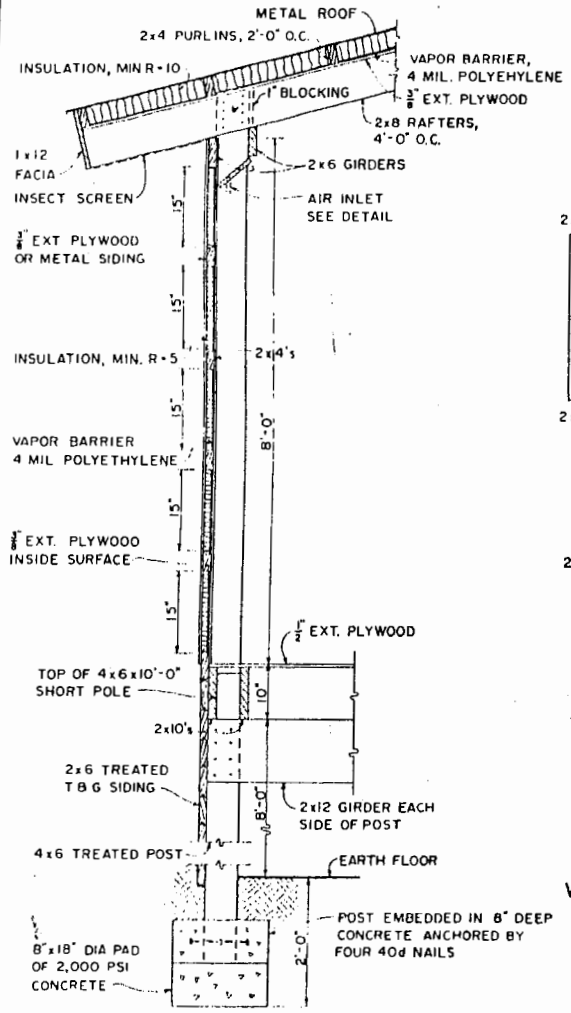


**AIR INLET DETAIL**  
SCALE:  $1\frac{1}{2}'' = 1'-0''$

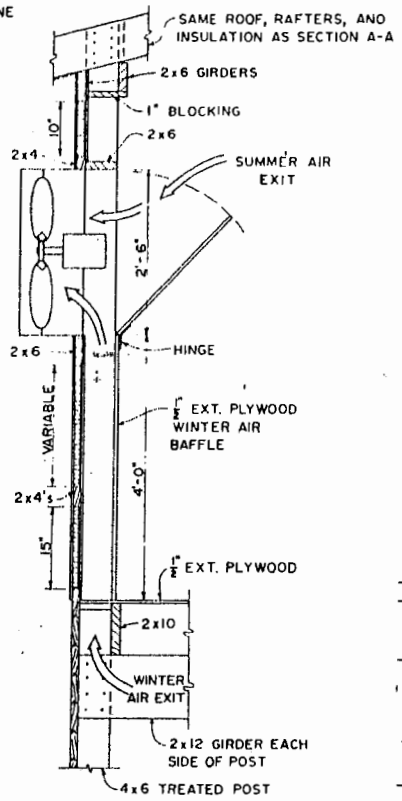


**SECTION C-C**





WALL SECTION A-A  
SCALE: 3/4" = 1'-0"



WALL SECTION B-B OF FAN DETAIL  
SCALE: 3/4" = 1'-0"

**INSULATION**

THE INSULATION IS INSTALLED IN THE SIDEWALLS BETWEEN THE GIRDERS AND IN THE CEILING BETWEEN THE PURLINS. A 4 MIL POLYETHYLENE FILM VAPOR BARRIER IS INSTALLED ON THE WARM SIDE OF THE INSULATION. THE MINIMUM INSULATION VALUES RECOMMENDED FOR VA. ARE R-10 IN THE CEILING AND R-5 IN THE SIDEWALLS.

**VENTILATION**

**WINTER:** FOR LIGHT BREEDS, 4.5 CU. FT. OF AIR PER MINUTE PER BIRD AT 1/4" STATIC PRESSURE IS SUGGESTED. THE TABLE ON THIS SHEET SHOWS THE SIZE AND NUMBER OF FANS REQUIRED FOR DIFFERENT LENGTH HOUSES.

**SUMMER:** FOR LIGHT BREEDS, 6.0 CU. FT. OF AIR PER MINUTE PER BIRD AT 1/4" STATIC PRESSURE IS SUGGESTED. THE TABLE ON THIS SHEET LISTS THE SIZES AND NUMBERS OF FANS REQUIRED FOR DIFFERENT LENGTH HOUSES.

ALL FANS ARE LOCATED ON THE NORTH OR WEST SIDE OF THE BUILDING. ABOUT EVERY THIRD FAN SHOULD BE INSTALLED AS SHOWN IN SECTION B-B. THESE FANS ARE TO BE EQUIPPED WITH THERMOSTATS AND RECYCLING TIMERS. THE REMAINING FANS SHOULD BE EQUIPPED WITH THERMOSTATS ONLY AND SHOULD NOT RUN UNTIL ALL FANS WITH THE DUCTS ARE IN OPERATION. FOR WARM WEATHER OPERATION, THE DUCT IN SECTION B-B SHOULD BE OPENED UP TO ALLOW THE FAN TO OPERATE WITH GREATER EFFICIENCY.

**AIR INLET**

A PERIMETER TYPE AIR INLET SHOWN IN SECTION A-A IS RECOMMENDED. THE INLET SHOULD BE BLOCKED OUT, HOWEVER, FOR 10'-0" ON EACH SIDE OF THE FANS AS SHOWN IN SECTION B-B.

PROVIDE 25 SQ. IN. OF INLET AREA FOR EACH 100 CFM EXHAUSTED BY THE FANS.

WINTER VENTILATION FAN SELECTION (4.5 CFM/BIRD)			
* CAGE ROW LENGTH	** NO. OF LAYERS	CFM AT 1/4" SP TOTAL CAPACITY	CFM AT 1/4" SP APPROX. CAP. EACH FAN BANK 48" O.C.
40' x 96'	4,600	20,700	10,350
40' x 144'	6,900	31,000	-
40' x 192'	9,200	41,300	-
40' x 240'	11,500	51,800	-
40' x 288'	13,800	62,000	-
40' x 384'	18,400	82,800	-
40' x 480'	23,000	103,500	-
SUMMER VENTILATION FAN SELECTION (6 CFM/BIRD)			
40' x 96'	4,600	27,500	13,800
40' x 144'	6,900	41,400	-
40' x 192'	9,200	55,100	-
40' x 240'	11,500	69,000	-
40' x 288'	13,800	82,800	-
40' x 384'	18,400	101,000	-
40' x 480'	23,000	138,000	-

\* EXCLUDES EGG ROOM AND SUPPLY STORAGE + END AISLE  
\*\* BASED ON FLAT DECK OR STAIR STEP CAGES WITH TWO BIRDS PER 8' x 16' CAGE



## Disclaimer

This site makes available conceptual plans that can be helpful in developing building layouts and selecting equipment for various agricultural applications. These plans do not necessarily represent the most current technology or construction codes. They are not construction plans and do not replace the need for competent design assistance in developing safe, legal and well-functioning agricultural building system. The LSU Agriculture Center, the Mid-West Plan Service, the United States Department of Agriculture and none of the cooperating land-grant universities warranty these plans.