


FLOOR PLAN  
SCALE: 1/8" = 1'-0"

- ELECTRICAL**
- LIGHTING OUTLET
  - ⊖ GR DUPLEX CONVENIENCE OUTLET GROUNDED
  - ⊕ SPECIAL PURPOSE OUTLETS
    - EG - EGG GRADER
    - EW - EGG WASHER
    - ERC - EGG ROOM COOLER
    - FA - FEED BIN AUGER
    - VF - VENTILATION FAN
  - S SPST SWITCH
  - S<sub>P</sub> SPST SWITCH W/PILOT LIGHT
  - S<sub>T</sub> SPDT TIME SWITCH (230 VOLTS)
  - T<sub>1</sub> LOW VOLUME THERMOSTAT
  - T<sub>2</sub> MEDIUM VOLUME THERMOSTAT
  - T<sub>3</sub> HIGH VOLUME THERMOSTAT
  - DISTRIBUTION PANEL - (FUSE OR CIRCUIT BREAKER)
  - ▨ D.R.D.T. SERVICE ENTRANCE SWITCH FOR USE WITH STAND-BY GENERATOR

- NOTES:**
1. ALL PERMANENT WIRING SHOULD COMPLY WITH THE NATIONAL ELECTRIC CODE AND ANY OTHER LOCAL CODES IN AUTHORITY.
  2. NON-METALLIC WIRING, SWITCHES, LAMP HOLDERS AND RECEPTACLES ARE RECOMMENDED. (SEE NEG ART. 336-3)
  3. 1/2 HP OR LARGER MOTORS SHOULD BE CONNECTED TO 230 VOLTS.
  4. LIGHTING CIRCUITS SHOULD BE EQUALLY DIVIDED ON 115 VOLT SIDES OF THE SERVICE TO BALANCE LOAD ON SYSTEM. AMPERE LOAD ON ANY CIRCUIT SHOULD NOT EXCEED 80% OF RATING.
  5. INCANDESCENT LAMPS, RATED AT 110 TO 120 VOLTS AND 25 WATTS ON 10'-0" CENTERS, ARE RECOMMENDED FOR USE WITH LIGHT COLOR-CEILINGS OR WITH SHALLOW DOM REFLECTORS. LAMPS SHOULD NOT BE MORE THAN 6'-0" ABOVE THE LOWEST FEEDER OR PROVIDE AT LEAST ONE FOOT CANDLE MINIMUM INTENSITY FOR BIRDS IN LOW-EST CAGES.
  6. CONSULT WITH EQUIPMENT MANUFACTURER FOR DETAILS AND DIMENSIONS OF CAGES AND OTHER EQUIPMENT.

- SPECIFICATIONS:**
1. THE DESIGN IS EXPANDABLE IN 8'-0" SECTIONS OF LENGTH AND IS 38'-0" WIDE.
  2. THE WINDOWLESS, CLEAR SPAN BUILDING USES TRUSSES 4'-0" O.C. WITH CAGES HANGING FROM BOTTOM CHORD OF TRUSSES.
  3. THREE INCHES OF INSULATION IS USED IN THE CEILING AND TWO INCHES IN WALLS.
  4. THE EGG COOLING ROOM USES TWO INCHES OF RIGID FOAM INSULATION.
  5. THE DESIGN IS FOR EITHER FRAME OR POST CONSTRUCTION, WITH METAL ROOF AND SIDING.
  6. THE VENTILATION SYSTEM USES EXHAUST FANS AND ADJUSTABLE SLOT INLETS.
  7. THE MANURE IS REMOVED FREQUENTLY BY SCRAPER AND DEPOSITED IN A LOADER OR STORAGE AREA.

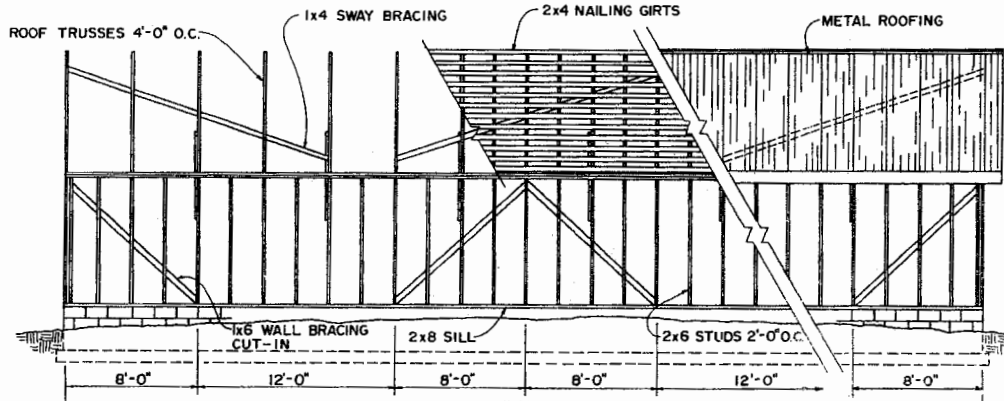
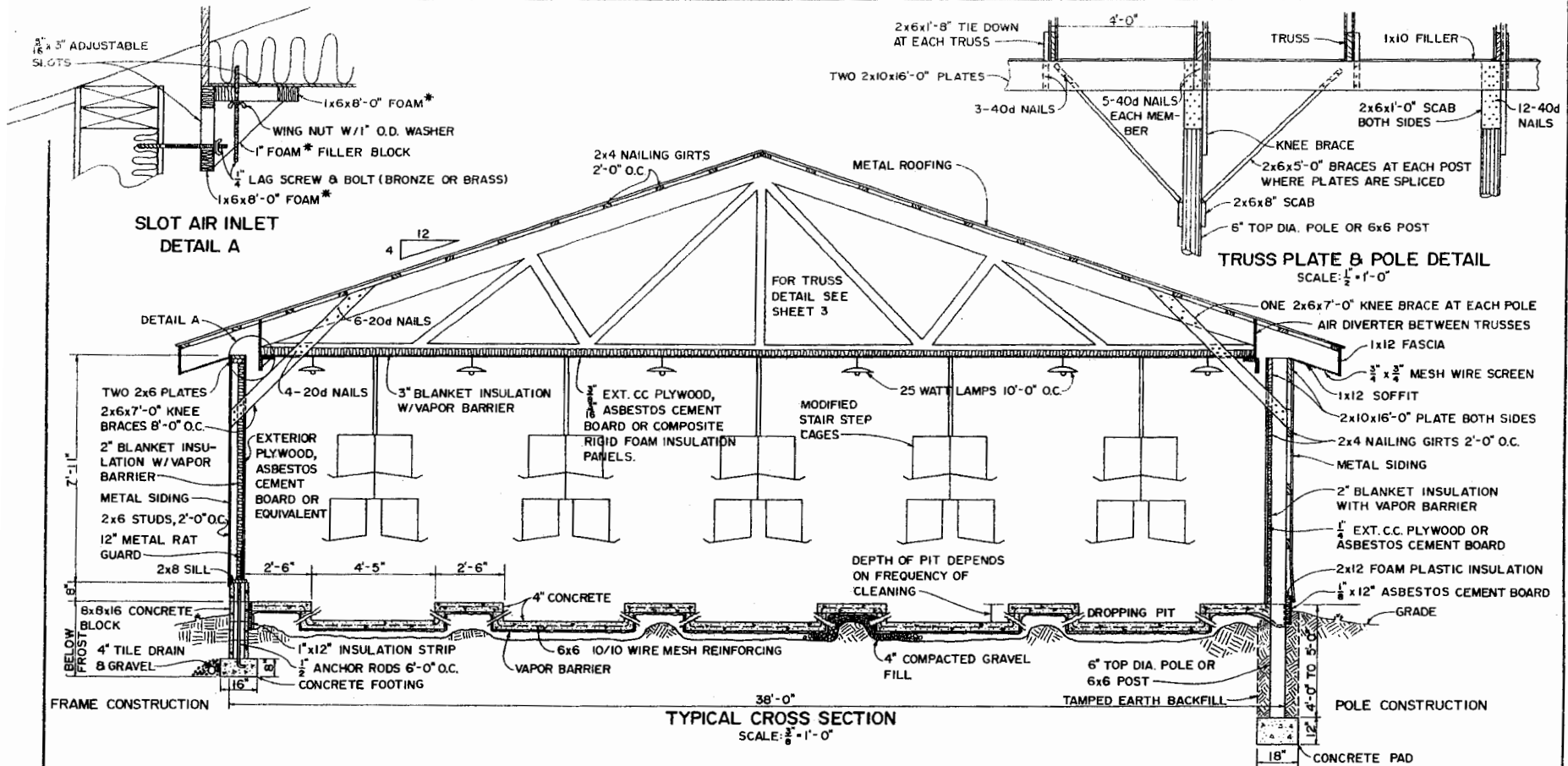
BASED ON: W.VA. UNIV. PLAN PO-123



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**POULTRY HOUSE**  
CAGED LAYERS

W.VA. '71	6131	SHEET 1 OF 3
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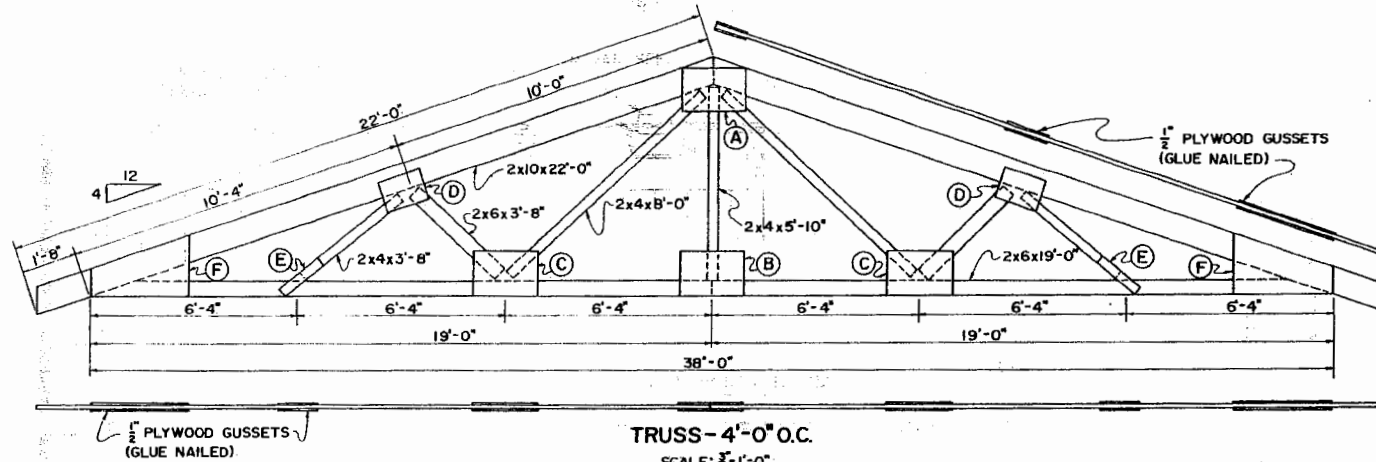
- NOTES:
1. TWO TYPES OF WALL CONSTRUCTION ARE SHOWN—FRAME & POLE
  2. INSTALL LOUVERS IN BOTH ENDS OF GABLE FOR ATTIC VENTILATION
  3. VENTILATION RATE: LOW VOLUME  $\frac{1}{2}$  CFM PER BIRD.  
HIGH VOLUME 4 CFM PER BIRD
  4. PLACE AIR INLET SLOT OPENINGS ON BOTH SIDES, NO CLOSER THAN 6'-0" TO FANS. THE SLOTS HAVE A 3" MAXIMUM ADJUSTMENT. SIDEWARD FOR AIR FLOW DOWN WALL OR DOWNWARD FOR AIR FLOW ACROSS CEILING OR BOTH.
  5. EGG ROOM SIZE VARIES WITH SIZE OF HOUSE.

\* POLYSTYRENE CLOSED-CELL FOAM, BOND TO OTHER PIECE AND TO FILLER BLOCK. USE SETTING ADHESIVE SUCH AS EPOXY, PHENOLIC, RESORCINOL-PHENOLIC, OR RESORCINOL.

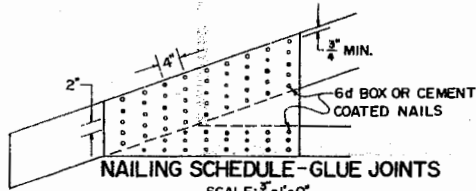


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<b>POULTRY HOUSE</b>		
CAGED LAYERS		
W. VA. '71	6131	SHEET 2 OF 3



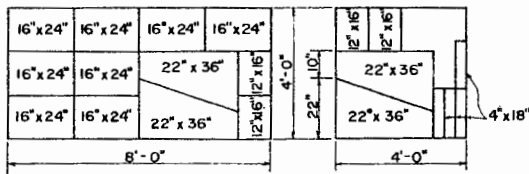
TRUSS - 4'-0" O.C.  
SCALE: 3/8" = 1'-0"



NAILING SCHEDULE - GLUE JOINTS  
SCALE: 3/8" = 1'-0"

**GUSSET PLATES**

1. EACH JOINT REQUIRES TWO GUSSETS, ONE ON EACH SIDE.
2. ALL GUSSET PLATES ARE 1/2" C-C EXTERIOR PLYWOOD, SANDED TO SMOOTH AND EVEN FINISH FOR THE GLUED TRUSS.
3. MEMBERS MUST BE SURFACED AND CLEAN.
4. MOISTURE CONTENT SHOULD NOT EXCEED 15%.
5. USE RESORCINOL RESIN GLUE AND 6d BOX NAILS.
6. MIX GLUE ACCORDING TO MFR. SPECIFICATIONS AND APPLY TO BOTH SURFACES TO BE JOINED. FASTEN GUSSET PLATES IN PLACE WITH NAILS AS SHOWN ABOVE. ENOUGH GLUE SHOULD BE APPLIED SO IT OOOZES OUT FROM JOINT WHEN NAILED.
7. GLUED TRUSS MAY BE MOVED CAREFULLY FROM THE JIG IMMEDIATELY AFTER GUSSET PLATES HAVE BEEN APPLIED.
8. TRUSSES MUST BE STACKED IN HORIZONTAL POSITION FOR AT LEAST 24 HOURS AFTER ASSEMBLY.
9. FABRICATE AT TEMPERATURE OF 70° OR SLIGHTLY HIGHER. KEEP MIXED GLUE BELOW 85°F.



CUTTING DIAGRAM FOR GUSSETS  
SCALE: 3/8" = 1'-0"

**DESIGN LOADS**

COMBINED ROOF LOAD: 35 PSF HP  
CEILING LOAD: 10 PSF CEILING AREA  
CONCENTRATED LOAD: 300 LBS. AT EACH JOINT ALONG LOWER CHORD

**BASIC LUMBER STRESS**

f = 1500 PSI BENDING & DIRECT TENSION.  
c = 1200 PSI COMPRESSION PARALLEL TO GRAIN.  
E = 1,760,000 PSI MODULUS OF ELASTICITY.

**LUMBER**

NO. 1 SOUTHERN PINE OR DOUGLAS FIR

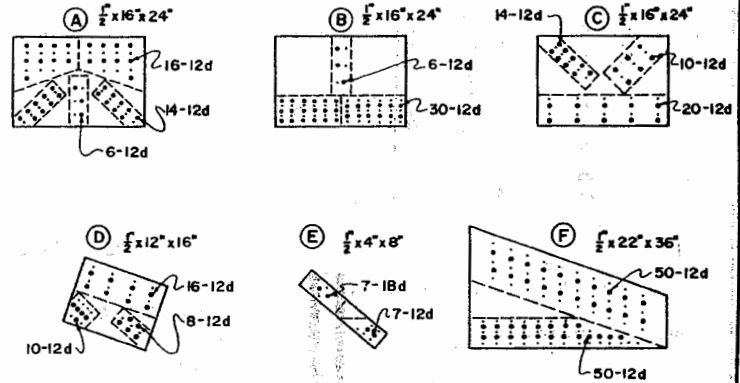
**FABRICATION**

DIRECTION OF FACE GRAIN OF GUSSETS B AND F MUST BE PARALLEL TO LOWER CHORD.  
CUT ALL MEMBERS FOR ONE TRUSS AND ASSEMBLE. USE THIS TRUSS AS A PATTERN, BUILD A JIG TO ASSEMBLE THE REMAINING TRUSSES.  
ALL TRUSS MEMBERS ARE IN THE SAME PLANE AND ALL JOINTS ARE BUTT JOINTS.

**BILL OF MATERIALS FOR ONE TRUSS LUMBER AND PLYWOOD**

	F B M
2 - 2x10x22'-0"	74
2 - 2x6x20'-0"	40
1 - 2x6x8'-0"	8
2 - 2x4x12'-0"	16
1 - 2x4x6'-0"	4
<b>TOTAL F B M</b>	<b>142</b>

1 1/2 - 4'-0" x 8'-0" SHEETS OF EXTERIOR C.C. PLYWOOD



NAILING SCHEDULE & GUSSET PLATE SIZE  
SCALE: 3/8" = 1'-0"

1. NAILS HELICALLY THREADED 12d.
2. USE NAIL SCHEDULE AS SHOWN ABOVE.
3. NAILS SHOWN BY CIRCLES (O) ARE DRIVEN FROM NEAR SIDE; REMAINING NAILS SHOWN BY DOTS (.) ARE DRIVEN FROM FAR SIDE.
4. ALL NAILS MUST BE CLINCHED.
5. NAIL SIZE, TYPE, SPACING AND NUMBER ARE CRITICAL. USE A TEMPLATE TO ASSURE PROPER SPACING AND NUMBER OF NAILS AT EACH JOINT.
6. MINIMUM SPACING OF NAILS ALL JOINTS - 2 1/4" PARALLEL TO GRAIN - 3/4" ACROSS GRAIN AND AT EDGES.
7. SPACE NAILS FARTHER APART WHERE POSSIBLE.



POULTRY HOUSE  
CAGED LAYERS

## 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.