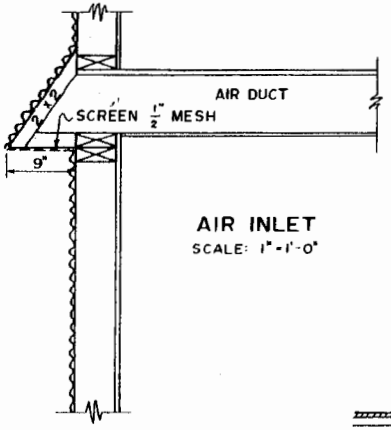
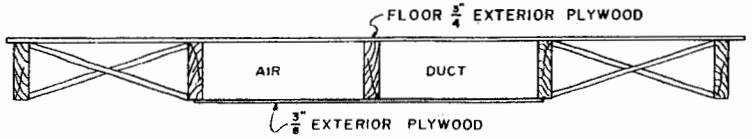
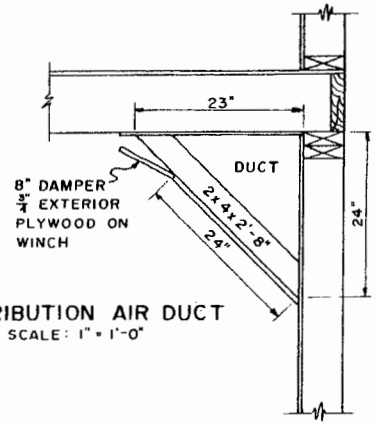


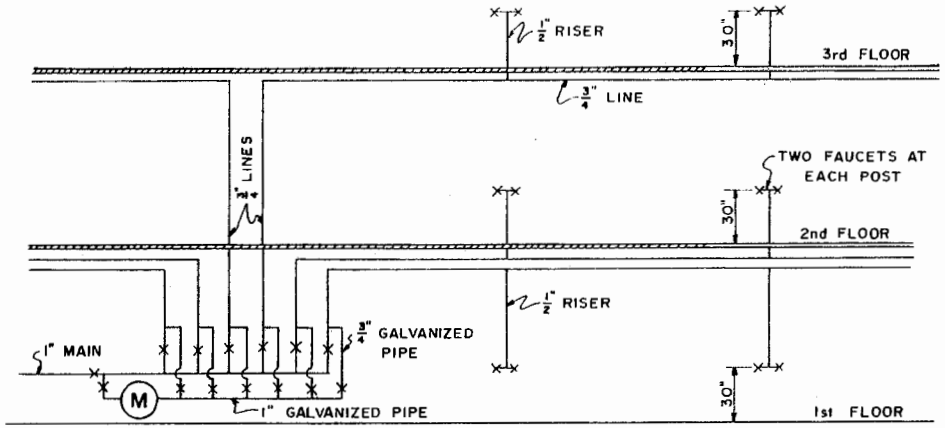
AIR INLET
SCALE: 1" = 1'-0"



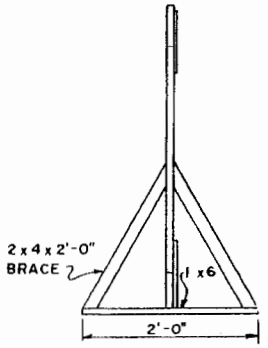
CEILING DUCT
SCALE: 1" = 1'-0"



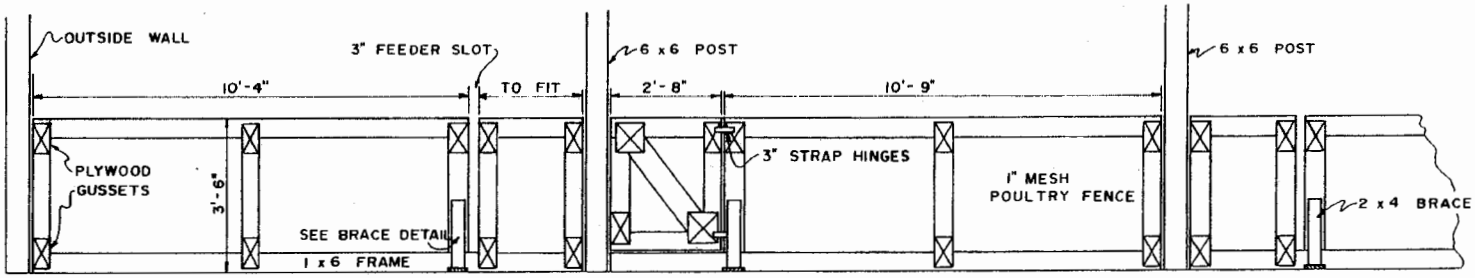
DISTRIBUTION AIR DUCT
SCALE: 1" = 1'-0"



PLUMBING DETAIL
SHOWING CONNECTIONS FOR MEDICATING



BRACE DETAIL
SCALE: 1" = 1'-0"



PEN PARTITIONS
SCALE: 1/2" = 1'-0"

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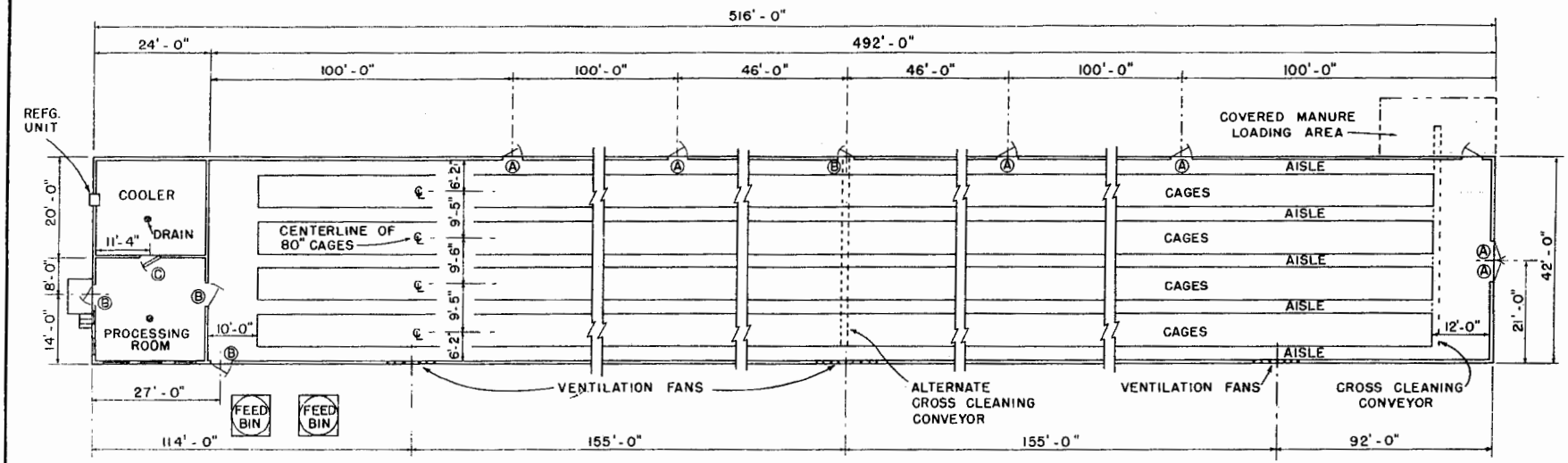
3 STORY BROILER HOUSE

DEL. '67	EX. 6036	SHEET 5 OF 5



FLOOR PLAN

(See Sheet No. 4 for Alternate Floor Plan)

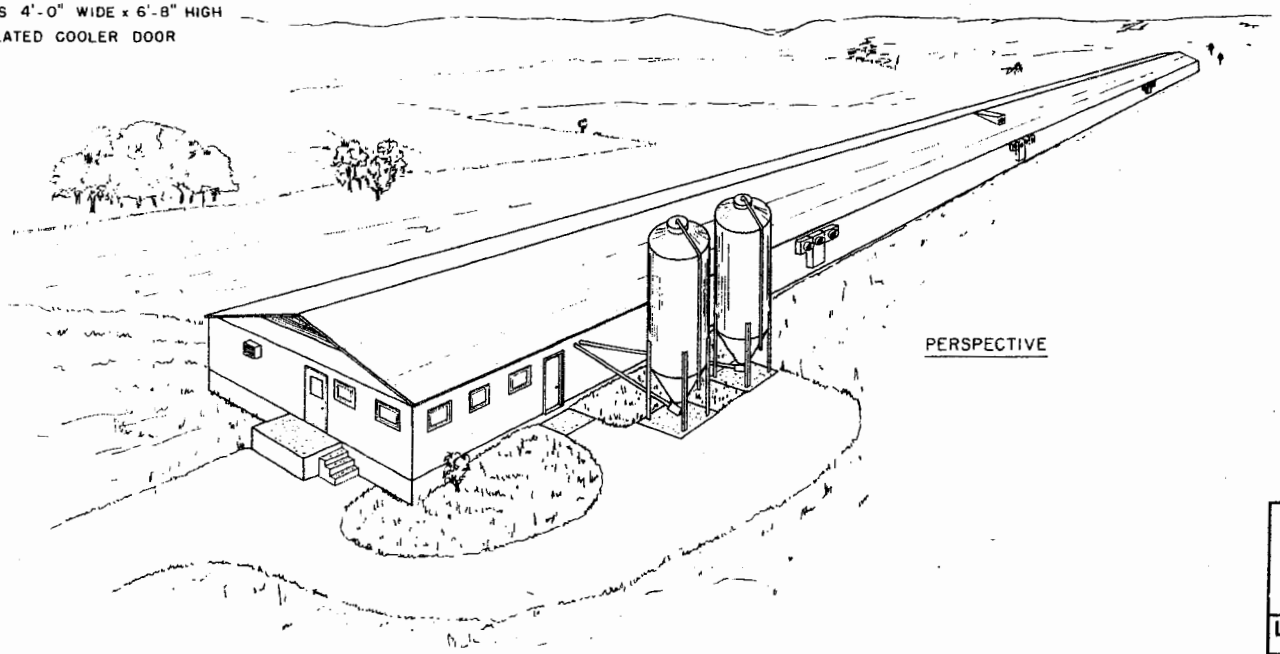
Scale : $\frac{1}{16}$" = 1' - 0"

NOTE:

Ⓐ DOORS 4' - 0" WIDE x 8' - 0" HIGH

Ⓑ DOORS 4' - 0" WIDE x 6' - 8" HIGH

Ⓒ INSULATED COOLER DOOR



PERSPECTIVE

This is a windowless, automatically ventilated poultry house designed for approximately 30,000 laying hens in cages. An egg processing room and cooler are included.

Consult with equipment manufacturer regarding details and dimensions of cages, floor & pit elevations before starting construction.

Design specifications:

Roof design load - 45 psf
Live + dead load
88 mph Wind Eq.

Lumber - 1500 f
See truss notes Sheet #5

Concrete - c = 2500 psi

Masonry Block - c = 800 psi

DESIGNED BY: H. R. DAVIS
CORNELL UNIVERSITY
PLAN 826

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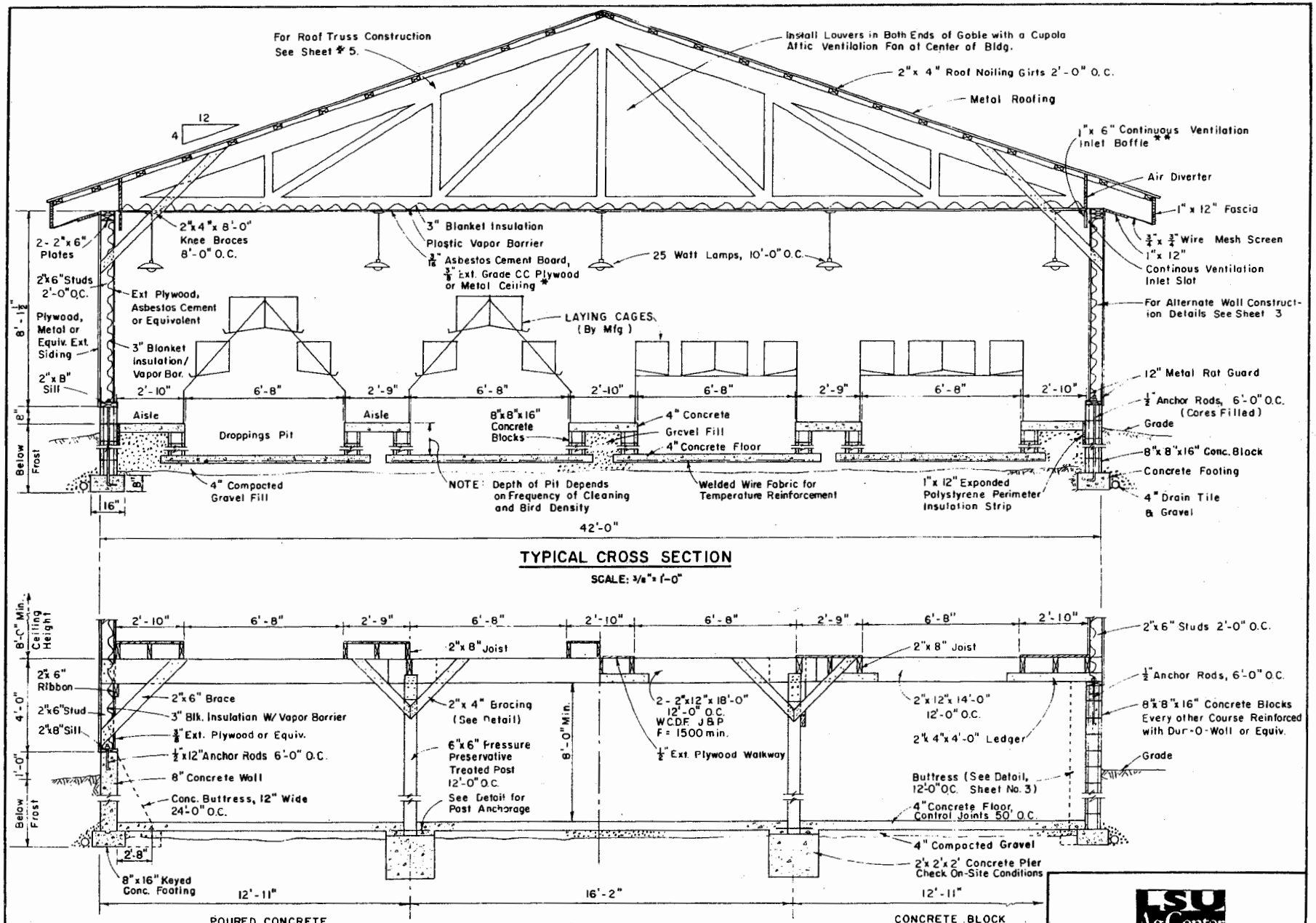
LAYING HOUSE FOR POULTRY
CAGE TYPE

N.Y. '68	EX. 6062	SHEET 1 OF 6



* Composite Rigid Foam Insulation Panels with Equivalent Insulation, Vapor Borrier & Interior Surface Properties may be used.

** For Detailed Information See Cornell Ext. Bulletin No. 1140, Agricultural Eng. Ext. Bulletin No. 319 & Bulletin Titled, Cornell Automatic Matorized Slot Inlet Control for Livestock Environment.

Note: WARNING Suffocating or Lethal Gasses May be present in Pits. Provide Adequate Ventilation at All Times.

Each Producer Should Make Provisions for Cleaning & Rodent Control of Pits.

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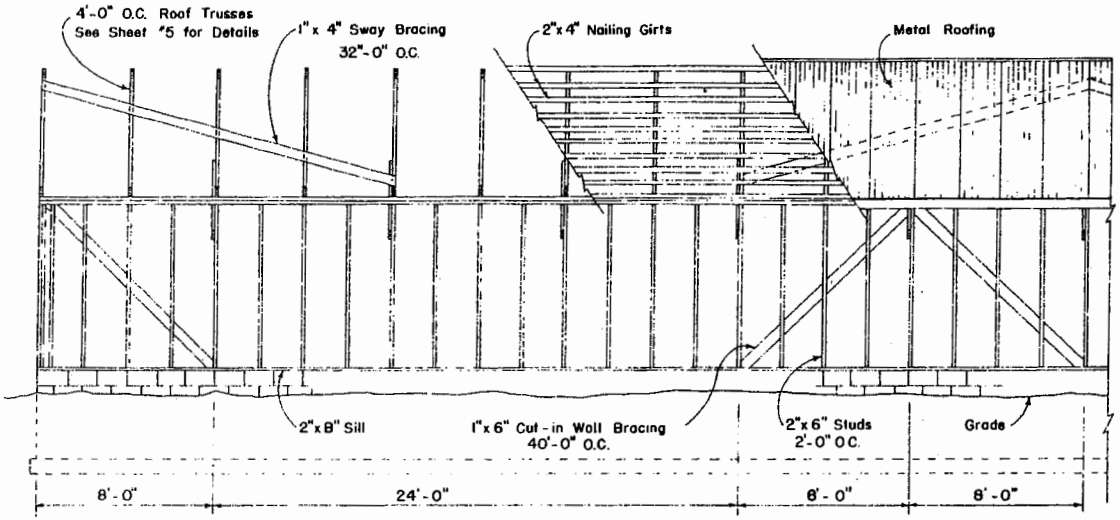
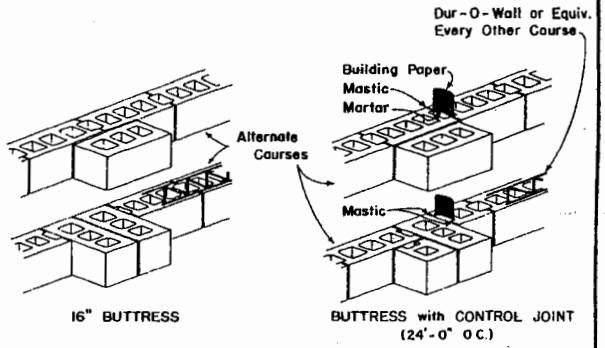
LAYING HOUSE FOR POULTRY
CAGE TYPE

N.Y. '68	EX. 6062	SHEET 2 OF 6

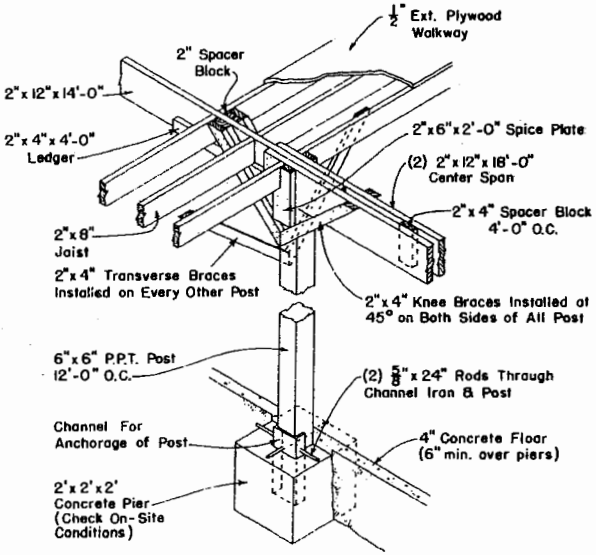


TYPICAL BRACING DETAILS FOR STUD FRAME WALLS & FOR ROOF TRUSSES

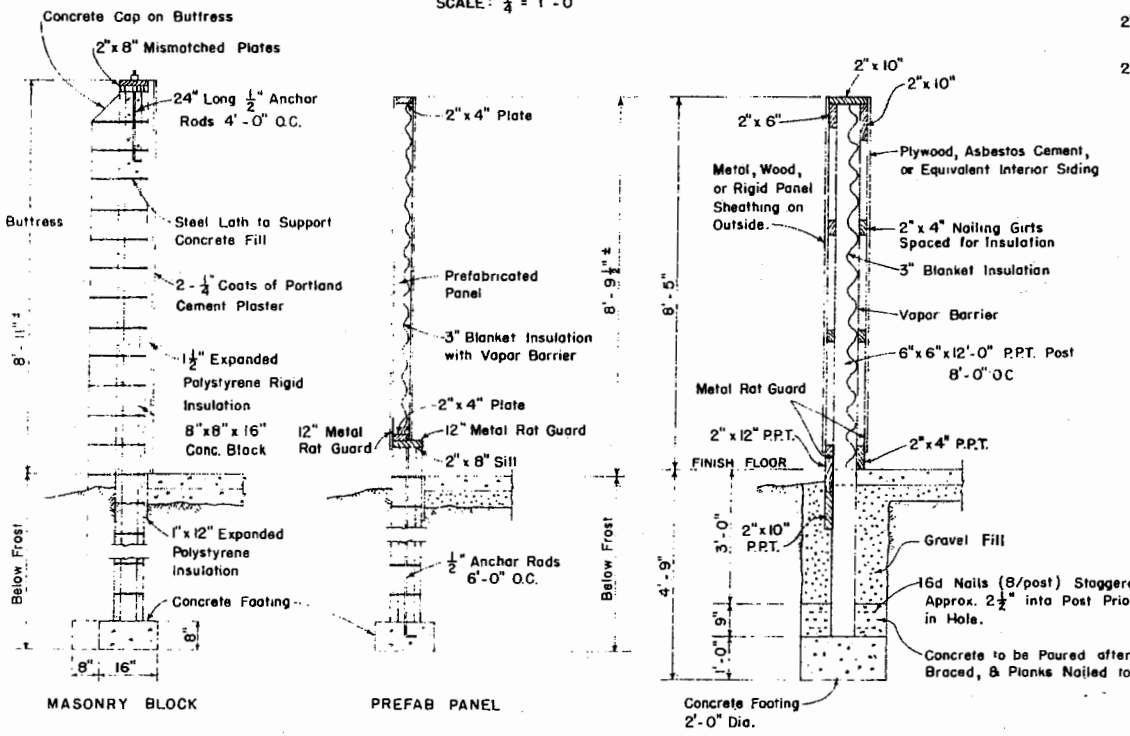
SCALE: $\frac{1}{4}$" = 1'-0"



BUTTRESS DETAILS FOR MASONRY WALLS



POST ANCHORAGE & BRACING



ALTERNATIVE TYPE OF WALL CONSTRUCTION

SCALE: $\frac{1}{2}$" = 1'-0"

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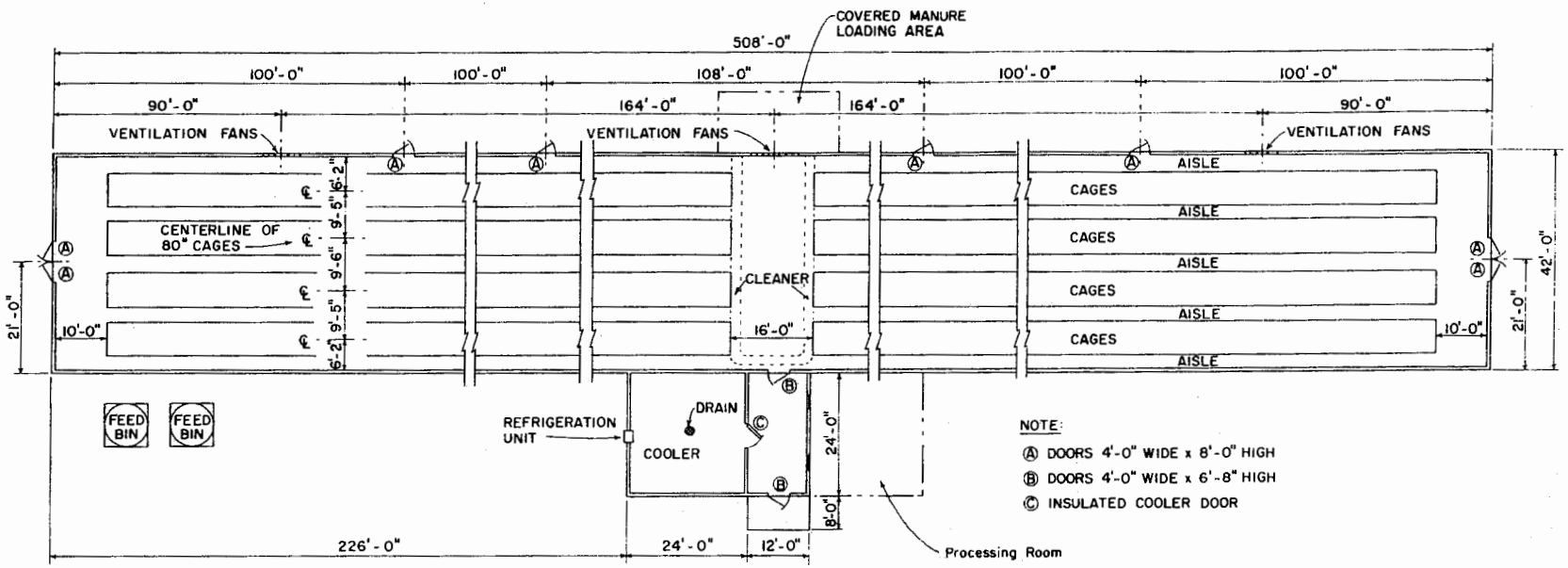
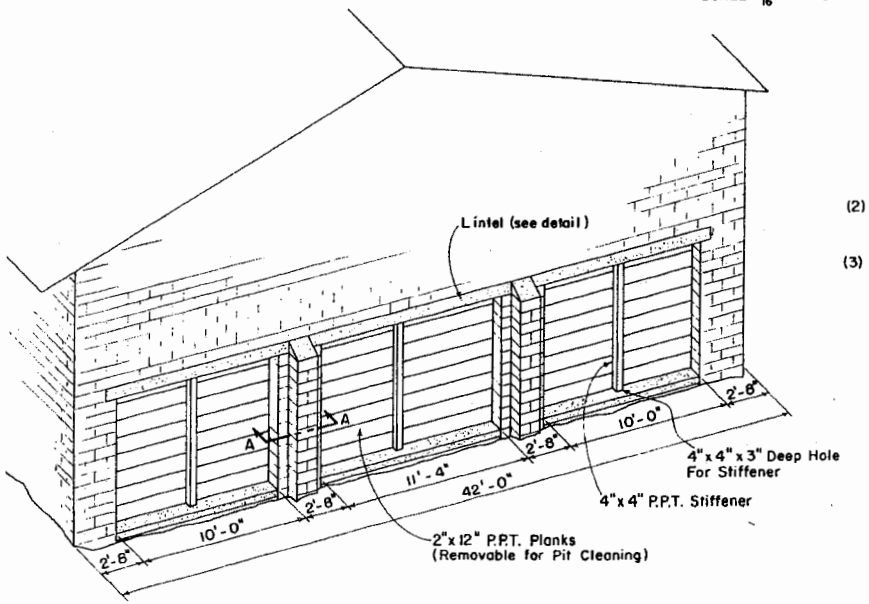
LAYING HOUSE FOR POULTRY
CAGE TYPE

N.Y. '68	EX. 6062	SHEET 3 OF 6

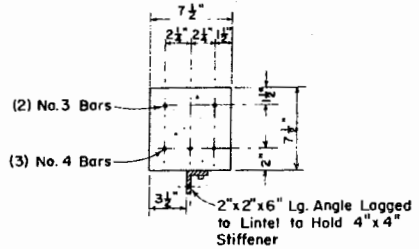


ALTERNATE FLOOR PLAN

SCALE: 1/16" = 1'-0"

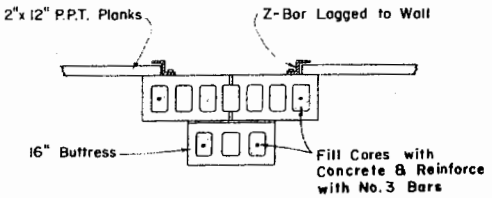


REMOVABLE END WALL SECTIONS FOR CLEANING DEEP PITS



LINTEL DETAIL

SCALE: 1½" = 1'-0"



SECTION A-A

SCALE: 3/4" = 1'-0"

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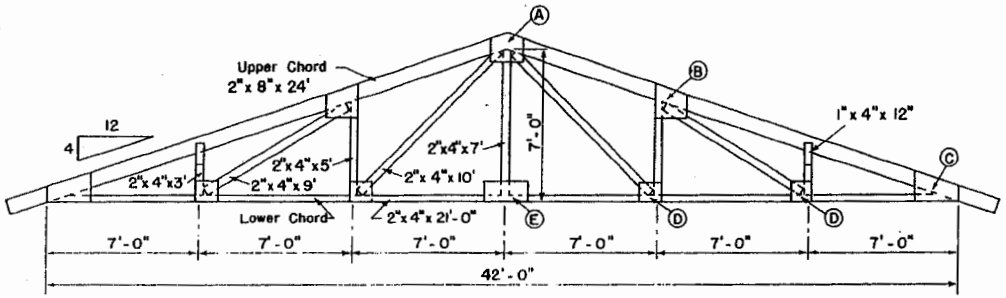
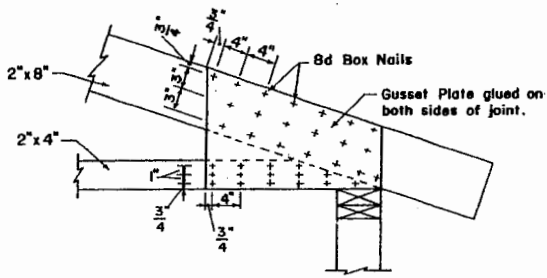
LAYING HOUSE FOR POULTRY
CAGE TYPE

N.Y. '68	EX. 6062	SHEET 4 OF 6



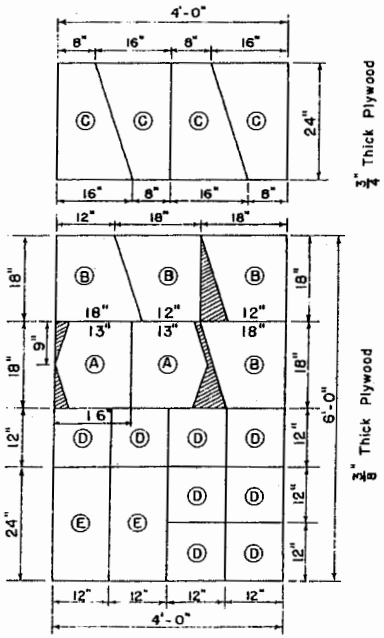
TRUSSED RAFTER

SCALE: $\frac{1}{4}$" = 1'-0"



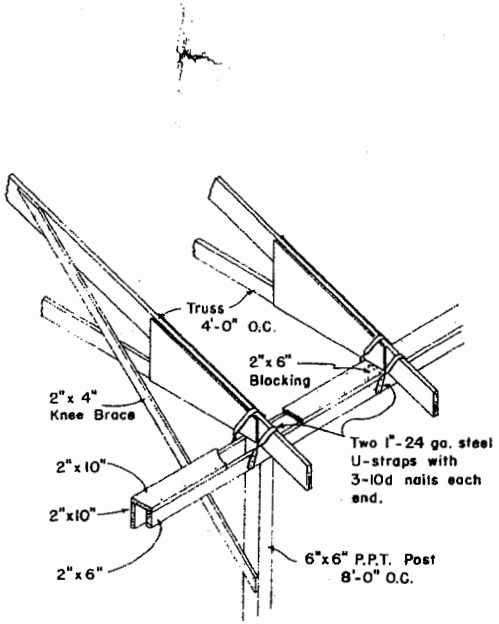
TRUSS HEEL JOINT DETAIL

SCALE: 1"=1'-0"



GUSSET PLATES - CUTTING DIAGRAM

Douglas Fir Plywood, Sanded, Exterior Type



TRUSS ANCHORAGE

For Post & Girder

Notes for Truss #826 Not designed for Concentrated Loads of Suspended Cages and Poultry

Design Values:

Dead Loads: Truss + Roof + Insulated Ceiling - 10 psf	
Live Loads: Snow	35 psf/zone one
Wind equivalent	88 mph
Truss spacing	4' - O.C.

Lumber - for upper and lower chords and web members

Douglas Fir -	Coast Region	- Construction J & P	f = 1500 psi
Hemlock -	West Coast	- Construction J & P	f = 1500 psi
Pine -	Southern	- No. 1 grade (2 in. thick)	f = 1500 psi

or equivalent

Plywood - for gusset plates on each side of joints

Sanded exterior type CC grade Douglas Fir or equivalent
3/4" and 3/8" as indicated in cutting diagrams

Glue - Resorcinol Resin at all gusset to truss member joints

Nails - at all joints

Nail all 3/4" gusset plates to the truss members with 8d box nails, and 3/8" gusset plates with 6d box. Space nails 4" on center in rows 1" to 3" apart. Nail no closer than 3/4" to edge of the gusset plates to avoid splitting.

Fabrication

(I) Mix Resorcinal Resin glue according to manufacturer's specifications. Note glue's pot life and curing time as a function of temperature. Apply glue to both the plywood gusset plates and the lumber members at each joint. Do not "starve" joints of glue.

(II) Carefully remove each truss from the jig after assembly. Stack the trusses in a horizontal position for at least 24 hours. Protect the uncured trusses from rain. Glue cures more slowly if construction is done in cool weather. Heat will be required if fabrication is done in winter for trusses to be stored for later erection during good weather.

Materials for one truss

Member	No. of Pieces	Size	Bd. Ft.
Top Chord	2	2"x 8"x 24'	64
Lower Chord	2	2"x 4"x 21'	28
Webs	2	2"x 4"x 10'	14
	2	2"x 4"x 9'	
	1	2"x 4"x 7'	28
	2	2"x 4"x 5'	
	2	2"x 4"x 3'	
	4	1"x 4"x 12"	2
			136

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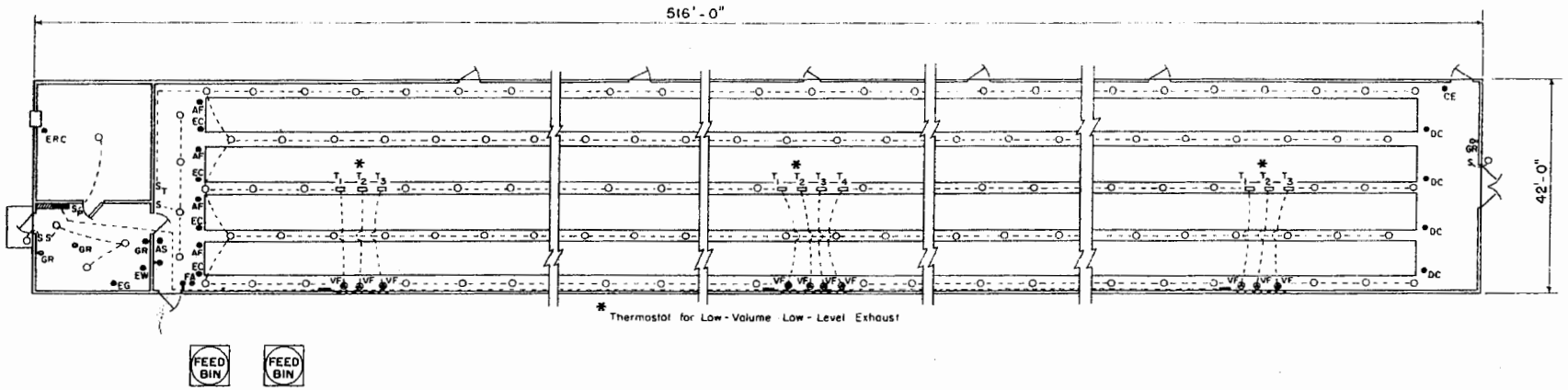
LAYING HOUSE FOR POULTRY
CAGE TYPE

N.Y. '68 | EX. 6062 | SHEET 5 OF 6



WIRING LAYOUT

SCALE: $\frac{1}{16}$" = 1'-0"

Electrical Symbols

---○---	Lighting Outlet
⊖	Duplex Convenience Outlet
⊖ GR	Grounding-Type Convenience Outlet
▲	Special Purpose Outlets
	EG - Egg Grader EW - Egg Washer ERC - Egg Room Cooler FA - Feed Bin Auger AF - Automatic Feeder EC - Egg Collector DC - Droppings Cleaner CE - Cross Elevator VF - Ventilating Fan AS - Alarm System
S	SPST Switch
S_p	Switch w/Pilot Light
S_T	SPDT Time Switch (230 Volt)
T	Thermostat
▨	DPDT Service Entrance Switch for use with Standby Generator
▬	Distribution Panel - (Fuse or Circuit Breaker)

Example of Demand Calculation for Service Entrance Conductors & Equipment
Article 220-4(1) 1965 National Electrical Code

Continuous Loads	Amperes	230V.
Lighting 240 x 40 watts = 9,600 ÷ 230V	41.3	
Fan Motors, 10 - 1/2 hp. x 4.9A	49.0	
Total @ 100%	90.3	90.3
Intermittent Loads (next 60 Amperes)		
Lights 10 x 100 watts = 1,000 ÷ 230V	4.4	
Convenience Outlets 6 x 1.5A	9.0	
Feeders 4 - 1 hp. x 8A	32.0	
Egg Gatherers 4 - 1/2 hp. x 4.9A	19.6	
End Elevator - 1 - 2 hp. x 12A	12.0	
Cross Feed Auger 1 - 1/2 hp. x 4.9A	4.9	
*Pit Cleaners 1 - 3 hp. x 17A	17.0	
*Cross Conveyor - 1 - 5 hp. x 28A	28.0	
Egg Cooler 1 - 1 1/2 hp. x 10A	10.0	
Egg Grader 1 - 1/3 x 3.6A, 1 - 1/2 x 2.2	5.8	
Total Intermittent Loads	142.7	
60 Amperes @ 50%	60.0	30.0
Remainder @ 25%	82.7	20.7
Computed Demand for Service Entrance Equipment		141.0

A 150 Ampere Service is Required

* If the 3 hp. electric pit cleaners and a 5 hp. cross conveyor are not used the computed demand will be 15.3 amperes less or 125.7.

Notes

1. All permanent wiring should comply with the National Electrical Code and any other local code in authority.

2. Non-metallic wiring and devices (switches, lampholders and receptacles) are recommended for all buildings housing livestock. See National Electrical Code Article 336-3.

3. All motors 1/2 hp. or larger should be connected to 230 volts to reduce ampere requirements by one-half. This allows the use of smaller wire, reduces voltage drop and insures balanced load on the electric service and transformer.

4. Lighting circuits used for egg production should be equally divided on 115 volt sides of the service to insure balanced load on the system. The ampere load on any circuit should not exceed 80 percent of the rating.

5. Incandescent lamps rated at 120 to 125 volts and 25 watts on 10 ft. centers for use with light colored ceilings or with shallow dome reflectors are recommended. Lamps should be not more than 6 feet above the lowest feeder or provide at least one foot candle minimum intensity for birds in lowest cages.

6. Light control circuitry diagrams are available for increasing the light intensity for chore duties in the house.

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LAYING HOUSE FOR POULTRY
CAGE TYPE

N.Y. '68	EX. 6062	SHEET 6 OF 6

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.