

MWPS-72365

24' x 80' Calf Barn

Individual pens, barn cleaner group pens, open front area. This plan is designed to meet the calf-housing requirements of 100 milk-cow hear (100 cows in milk at any given time.) It is assumed that bull calves will be raised through weaning and then sold. Calves are kept in individual pens for at least six weeks. Group pens are more convenient for calves from 1 1/2 to 2 1/2 months old.

CAUTION!

Additional professional services will be required to tailor this plan to your situation, including but not limited to: assurance of compliance with codes and regulations; review of specifications for materials and equipment; supervision of site selection, bid letting and construction; and provision for utilities, waste management, roads or other access. **Furthermore, any deviation from the given specifications may result in structural failure, property damage, and personal injury including loss of life.**

WARRANTY DISCLAIMER

This plan provides conceptual information only. **Neither midwest plan service nor any of the cooperating land-grant universities, or their respective agents or employees, have made, and do not hereby make, any representation, warranty or covenant with respect to the specifications in this plan.** Additional professional services will be required to tailor this plan to your situation, including but not limited to: assurance of compliance with codes and regulations; review of specifications for materials and equipment; supervision of site selection, bid letting and construction; and provision for utilities, waste management, roads or other access.

MIDWEST PLAN SERVICE
Cooperative Extension Work in Agriculture and Home Economics and Agricultural Experiment Stations of North Central Region - USDA Cooperating
24' x 80' Calf Barn Individual pens, barn cleaner
Title Page
MIDWEST PLAN NO. 72365

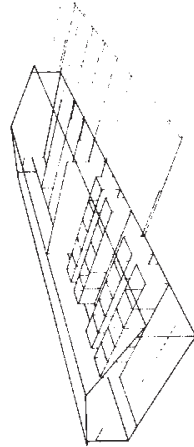
MWPS 72365

24' x 80' Calf Barn, Individual Pens (Uninsulated Area), Group Pens (Open Front Area)
 This plan is designed to meet the calf-housing requirements of a 100 milk cow herd (100 cows in milk at any given time). It is assumed that bull calves will be raised through weaning and then sold. Calves are kept in individual pens for at least six weeks. Group pens are more convenient for calves from 1½ to 2½ months old. See floor plan B.

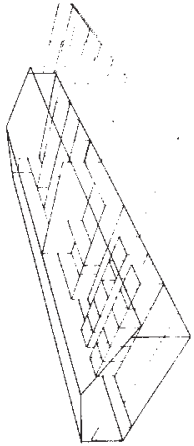
- Assumed calf herd makeup:
- 20 calves (bulls & heifers)
 - 7 calves (heifers only)
 - 7 calves (heifers only)
 - 7 calves (heifers only)
 - 7 calves (heifers only)
 - 7 calves (heifers only)

Ventilation and Heating

Heated Area—Tight fitting doors and construction reduce heat loss. Check with your insurance company before selecting heater as certain types of heaters may be considered high risk. Select ventilation fans to provide the required air exchange at 1/4 inch static pressure.



Plan A
Individual Pens

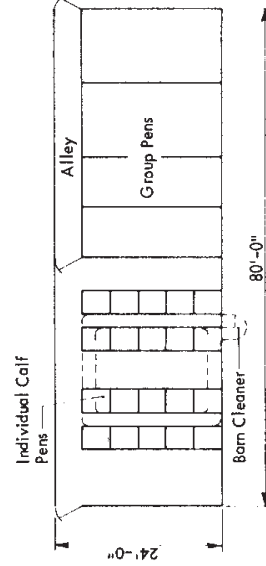


Plan B
Individual Pens and Group Pens

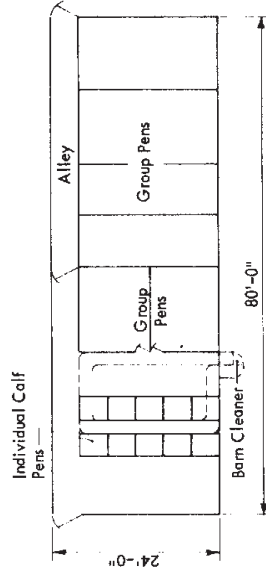
See MWPS - 7, Dairy Housing and Equipment Handbook, for additional information.

PREFERRED LUMBER SPECIFICATIONS

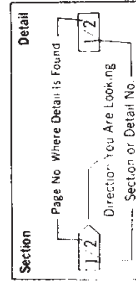
- Wall Girts
2x6 No. 2 (Doug Fir or Southern Pine), Max. Spacing: 32"
- Trusses, Headers, Top Girts
No. 1 or 1500 (machine rated (Doug Fir or Southern Pine))
- Posts and Sillshboards
Pressure Preservative Treated (Southern Pine or equiv.) Cresote-10 pct. Pentachlorophenol, ACA or CCA (Type A or BY-50 pct retention)
- Alternate Lumber Specifications
2x6 Girts (No. 2 Hem-Fir) Max Spacing: 24"
- Trusses (No. 1 Hem-Fir)
- See Truss Page
- Posts (Round or Sawm)
- 6x6 — ASA or ASAE Class 7, 4.8" Top Diameter



Floor Plan A

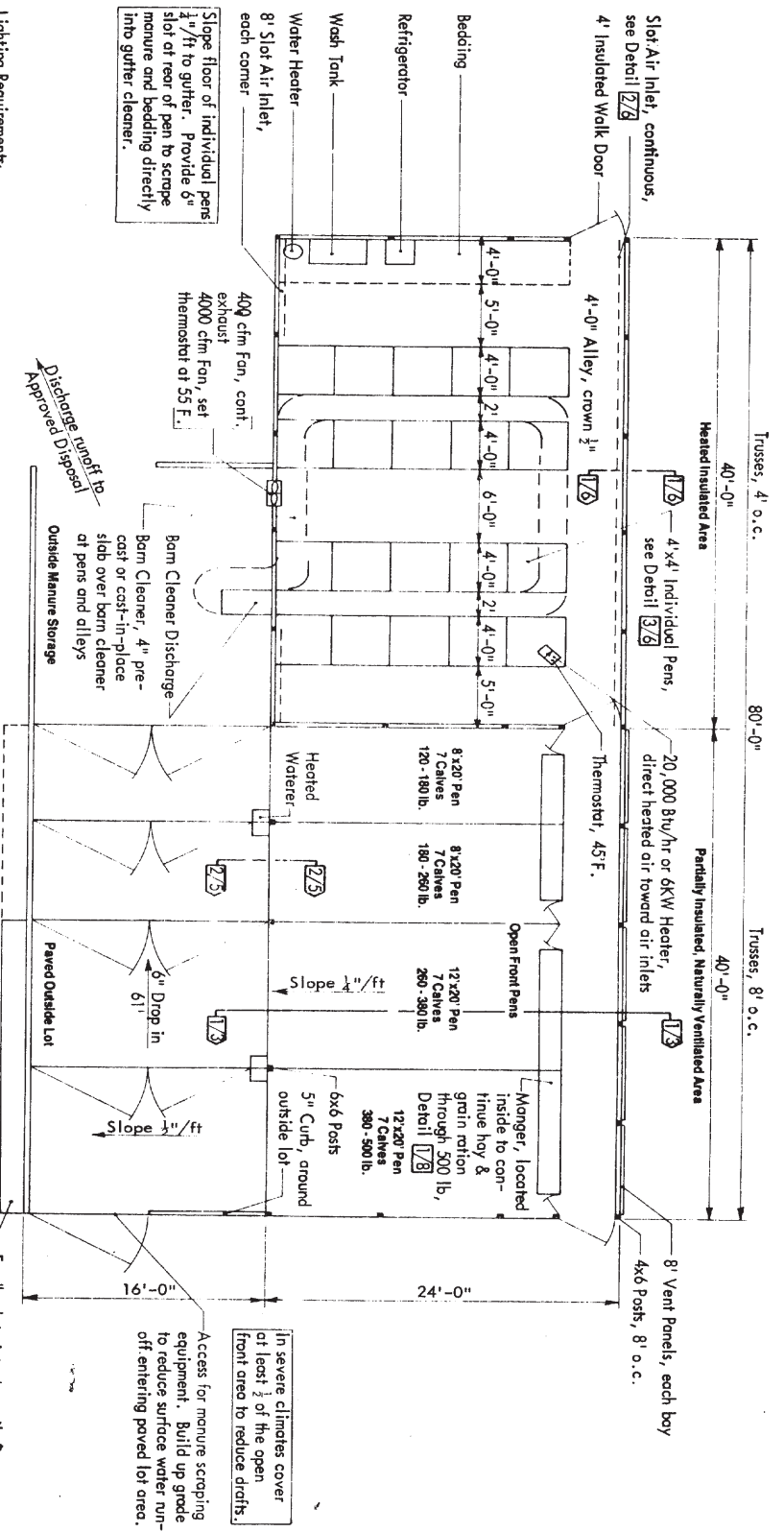


Alternate Floor Plan B



Section & Detail Indicator

MWPS MIDWEST PLAN SERVICE	
Cooperative Extension & Research in Agriculture & Home Economics in the 12 North Central Universities—USDA Cooperating	
24' x 80' CALF BARN Individual Pens, Barn Cleaner Group Pens, Open Front Area	
8 Pages plus 24' Truss Sheet	Plan No. mwps- 72365
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Lighting Requirements:
 2 rows of 100 watt Lights, 8' o.c. in both
 nursery and open front area. See electrical
 notes on page 7.

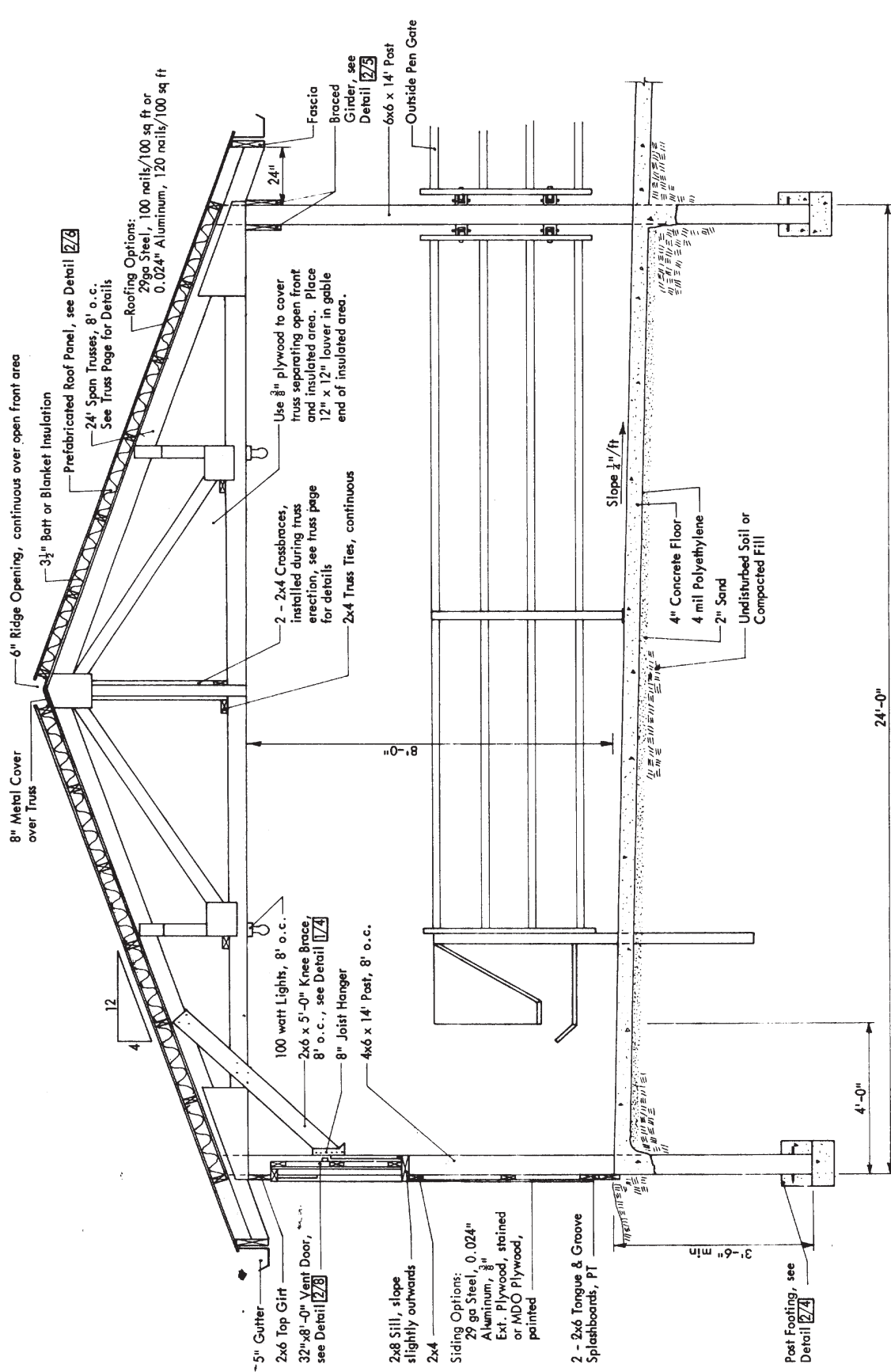
FLOOR PLAN A-112

Feedbunk to introduce silage to
 6 mon. old calves or for outside
 feeding program. In an alternate
 management scheme all rations
 could be fed outside in covered
 bunks.

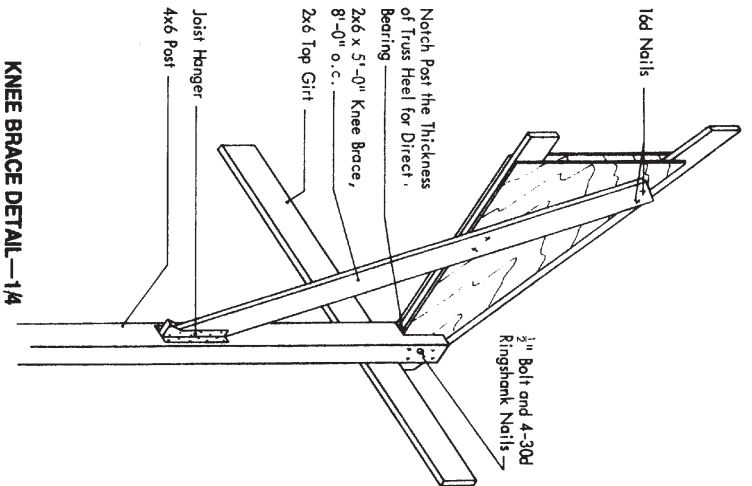
In severe climates cover
 at least 1/2 of the open
 front area to reduce drafts.
 Access for manure scraping
 equipment. Build up grade
 to reduce surface water run-
 off entering paved lot area.

MWPS MIDWEST PLAN SERVICE	
24' x 80' CALF BARN	
Individual Pens, Barn Cleaner Group Pens, Open Front Area	
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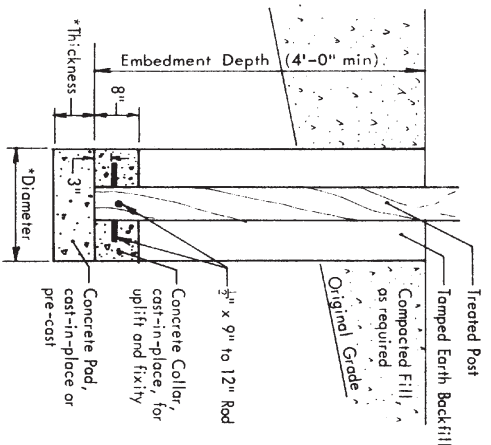
CROSS SECTION — 1/3
Open Front Area



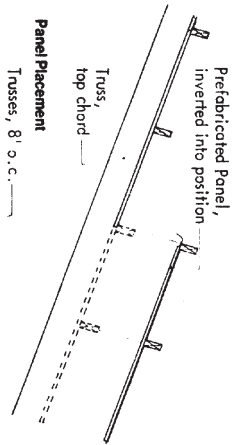
KNEE BRACE DETAIL—1/4

Extend embedment depth as required to place footing on undisturbed soil. For large diameter footings, use smaller diameter auger and flare the bottom of the hole with Lineman's spoon.

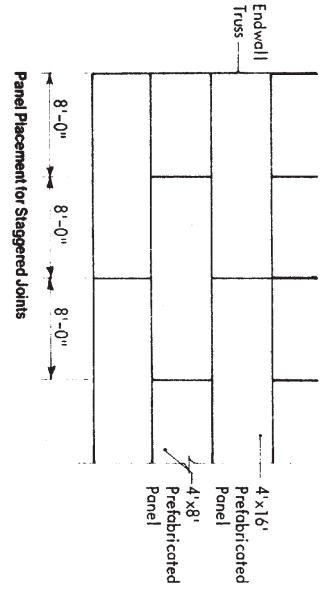
*Footing Size
 12" Dia x 6" Thick @ Endwall Posts
 16" Dia x 6" Thick @ Sidewall Posts



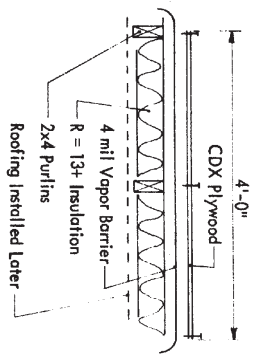
POST FOOTING DETAIL—2/4



Panel Placement
 Trusses, 8' o.c.

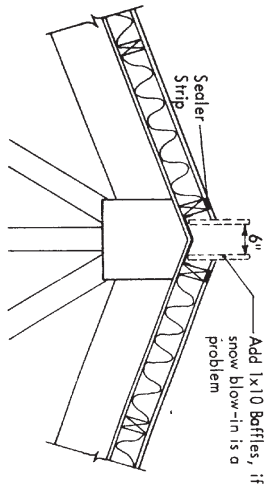


Panel Placement for Staggered Joints



Panel Detail
INSULATED ROOF PANELS—3/4

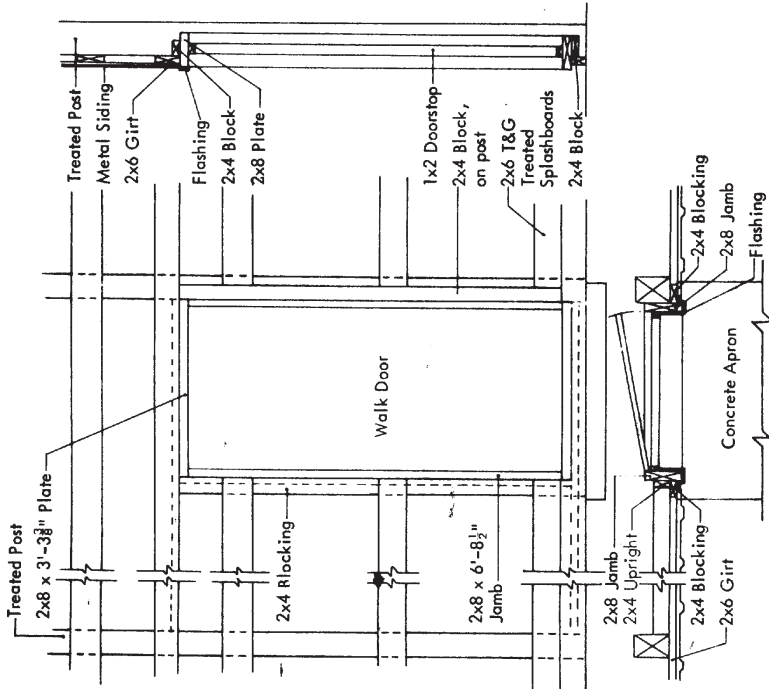
Open Front Area
 Reduce heat gain in summer and heat loss in winter. Fabricate 4x8 and 4x16 panels upside down. Invert and install the panels, staggering the end joints.



OPEN RIDGE VENT DETAIL—4/4

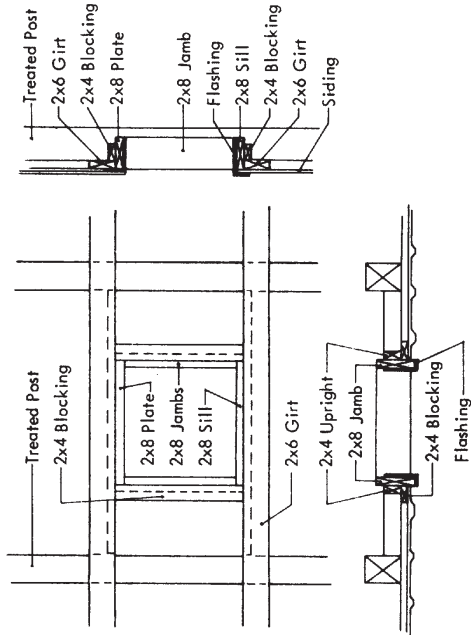
MPSS MIDWEST PLAN SERVICE

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	MPSS-72365	4 of 10
24' x 80' CALF BARN Individual Pens, Barn Cleaner Group Pens, Open Front Area		



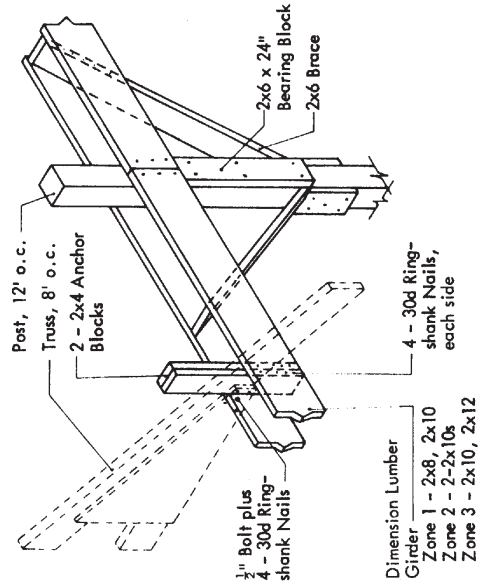
WALK DOOR FRAMING—1/5

For a building with an interior lining, extend the jambs, plate and sill to be flush with the inside edges of the posts, insulated walk doors adjacent to heated areas.



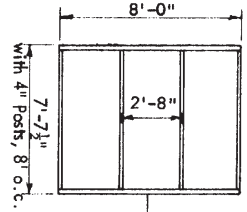
FRAMED OPENING DETAIL—3/5

For windows, fans and small vent doors. For a building with an interior lining, extend jambs, plate and sill to be flush with the inside edges of the posts.

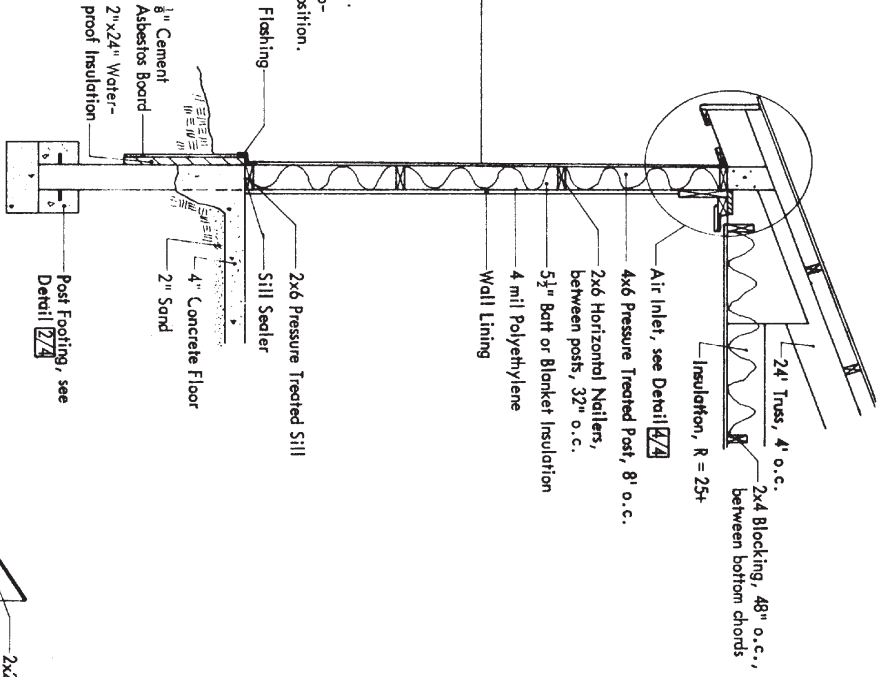


12' GIRDER, POST, TRUSS CONNECTION—2/5

Open Front Area



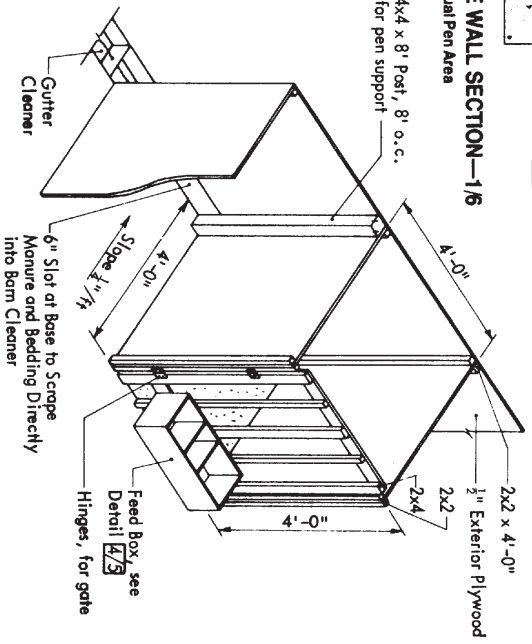
Wall Panel can be prefabricated and fitted into position.



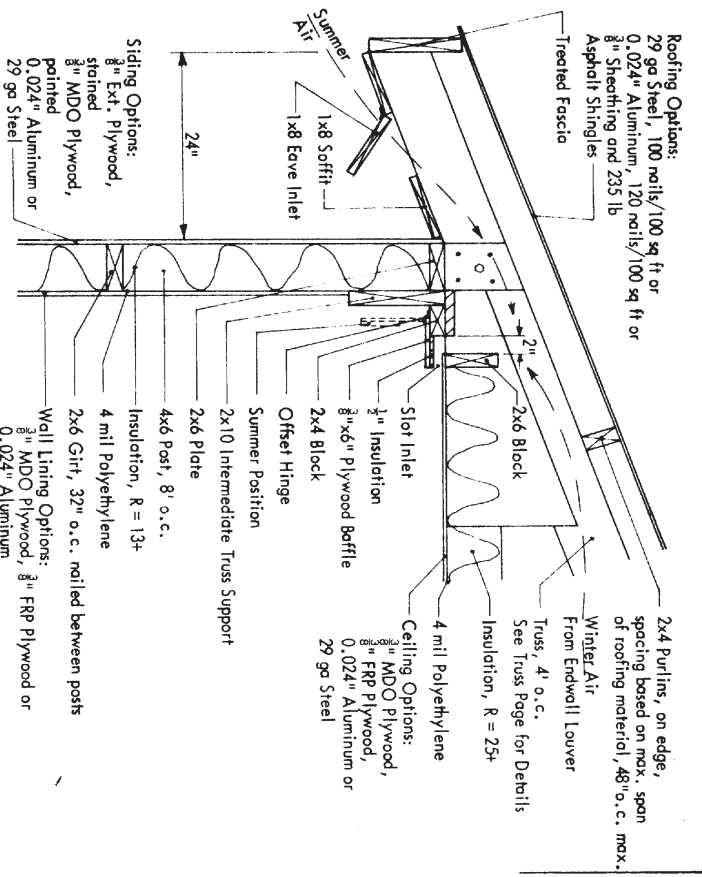
INSULATED POLE WALL SECTION—1/6

Individual Pen Area

4x4 x 8' Post, 8' o.c. for pen support



INDIVIDUAL CALF PEN—3/6



AIR INLET DETAIL—2/6

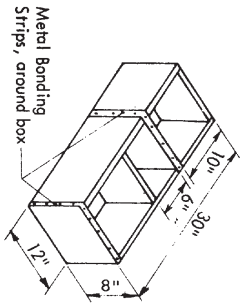
Heated Area

Install eave inlet along both long walls. Install slot inlet along the long wall toward the prevailing winter winds. Install fans, and 8' or slot inlet near the corners along the other long wall.

Summer: Open eave inlet next to slot inlet to draw air directly into building. Drop slot inlet baffle.

Winter: Close eave inlets. Draw air through louver located in gable end. Fasten slot inlet baffle in "up" position to force cold air across ceiling.

Hold vent doors and baffles in position with hooks and eyes. Slot opening 1/4".

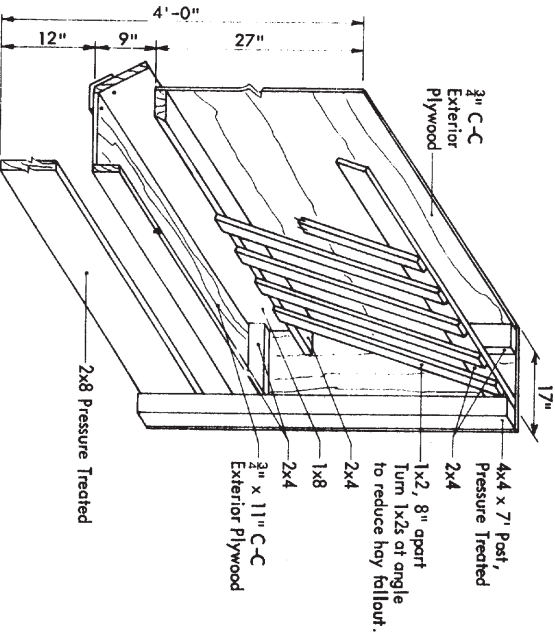


FEED BOX DETAIL—4/6

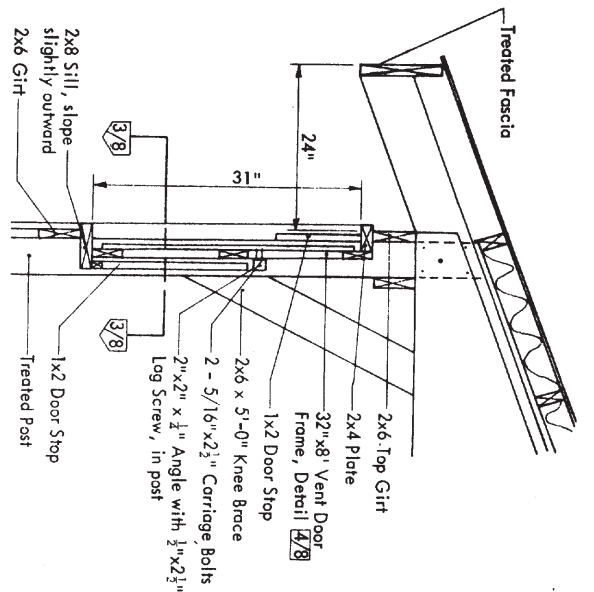
MWGS5 MIDWEST PLAN SERVICE

24' x 80' CALF BARN
Individual Pens, Barn Cleaner
Group Pens, Open Front Area

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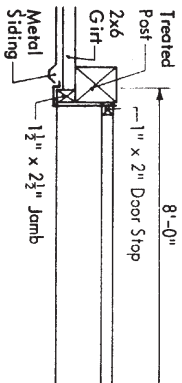


MANGER—1/8

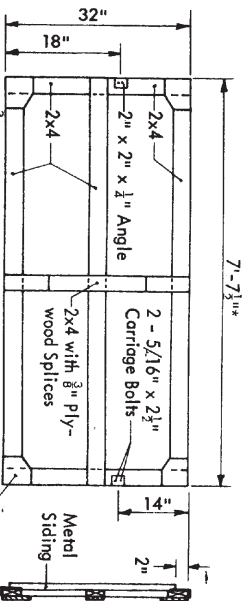


VENT DOOR SECTION—2/8

Open From Area
Hold vent door open with a light metal chain from the top of the vent door frame to an eye hook in the sill.

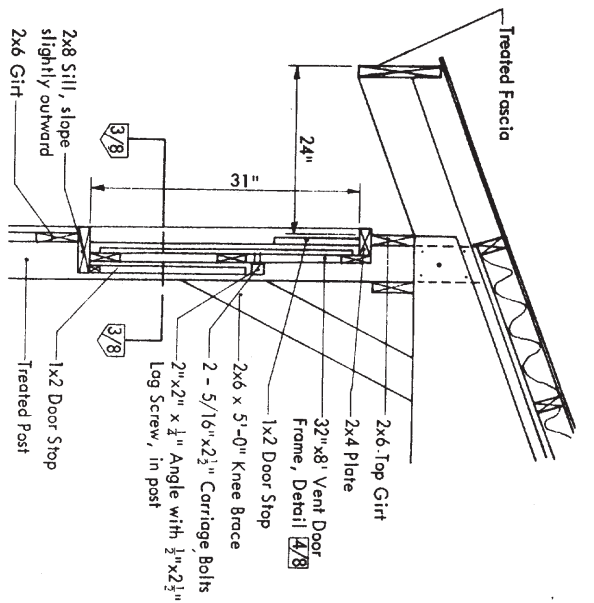
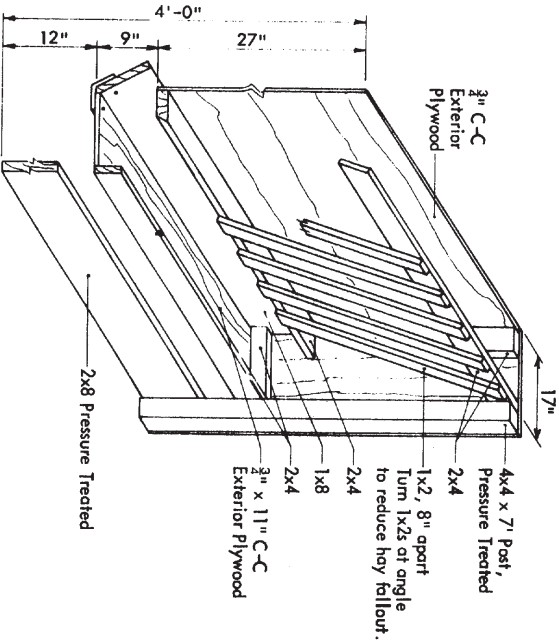


JAMB SECTION—3/8

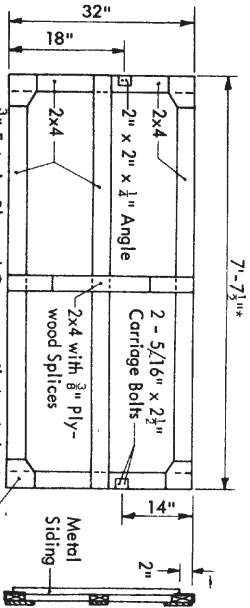
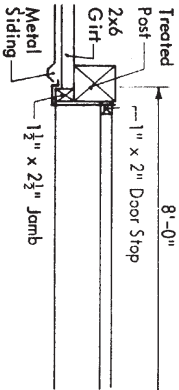


32" x 8" VENT DOOR FRAME—4/8

3/8" Exterior Plywood Gussets, notched and glued; if 3/8" Exterior C-C Plywood is used for covering, delete the gussets.
*Alter this dimension for other than 4" wide building posts or other than 8' o.c.



Open Front Area
 Hold vent door open with a light metal chain from the top of the vent door frame to an eye hook in the sill.



*Alter this dimension for other than 4" wide building posts or other than 8' o.c.
 if 3" Exterior Plywood Gussets, nailed and glued, delete the gussets

if 3" Exterior C-C Plywood is used for covering,

delete the gussets

32" x 8" VENT DOOR FRAME—4/R