

MWPS-72364

Open Front Calf Barn

Naturally ventilated resting area and group pens.

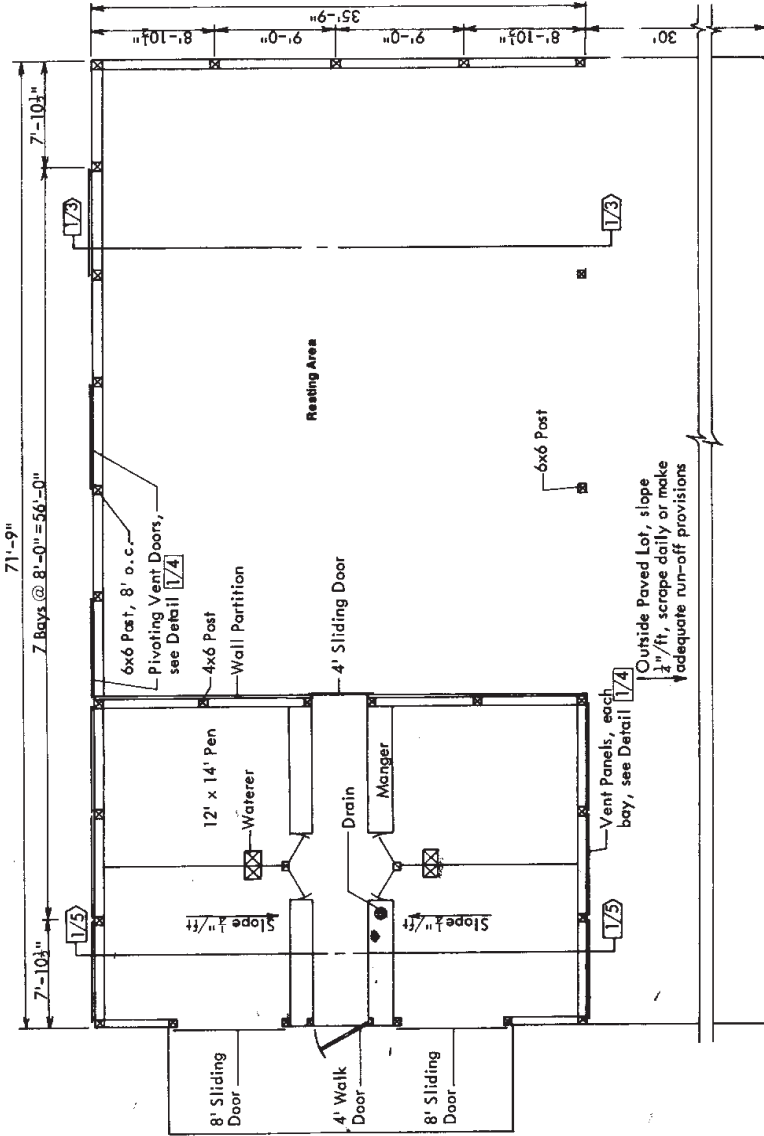
CAUTION!

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.**

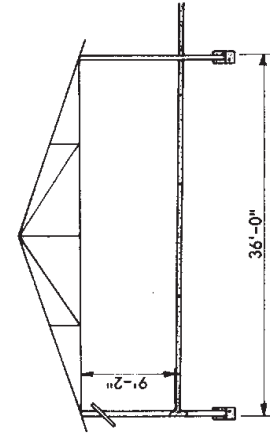
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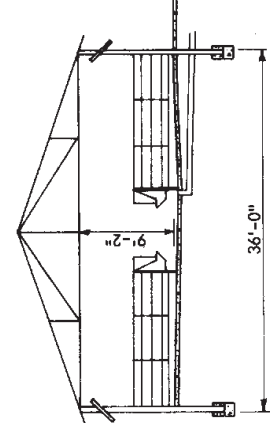
MIDWEST PLAN SERVICE
Cooperative Extension Work in Agriculture and Home Economics and Agricultural Experiment Stations of North Central Region - USDA Cooperating
Open Front Calf Barn Naturally Ventilated
Title Page
MIDWEST PLAN NO. 72364



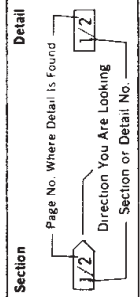
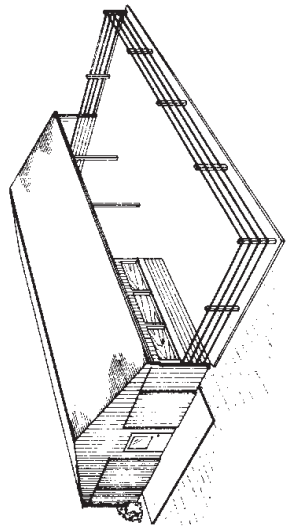
FLOOR PLAN—1/1



CROSS SECTION THROUGH RESTING BARN



CROSS SECTION THROUGH CALF PENS



Section & Detail Indicator

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Walk Door Detail	6
Truss Details	See Truss Page

Preferred Lumber Specifications
 Wall Girts: 2x6 No. 2 (Doug Fir or Southern Pine)
 Trusses: Headers, Top Girts: No. 1 or 1500 f machine rated (Doug Fir or Southern Pine)
 Posts and Splashboards: Pressure Preservative Treated (Southern Pine or equiv.) Cresote-10 pcf, Pentac-0.50 pcf, ACA or CCA (Type A or B)-0.50 pcf retention
 Plywood Roof Sheathing: Use C-C-EXT, unsanded

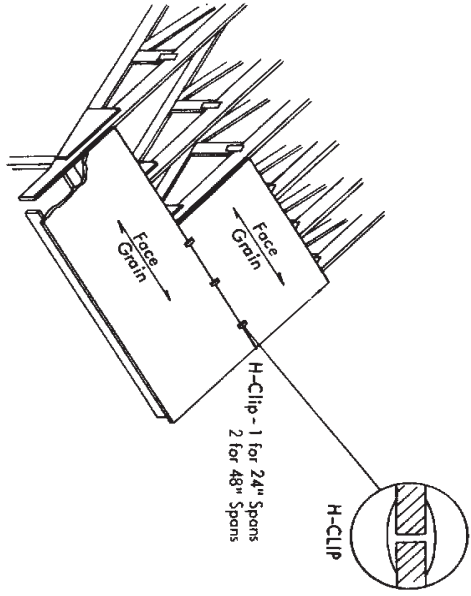
Alternate Lumber Specifications
 2x6 Girts (no. 2 Hem-Fir)
 Trusses (No. 1 Hem-Fir)
 See Truss Page
 Posts (Round vs Sawn)
 6x8 = ASA or ASAE Class 7, 4.8" Top Diameter

TRUSS MIDWEST PLAN SERVICE
 Cooperative Extension & Research in Agriculture & Home Economics in the 12 North Central Universities—USDA Cooperating

OPEN FRONT CALF BARN
 Naturally Ventilated Resting Area & Group Pens

6 Pages plus	Plan No.	Page
36' Truss Sheet	mwp: 72364	1 of 8

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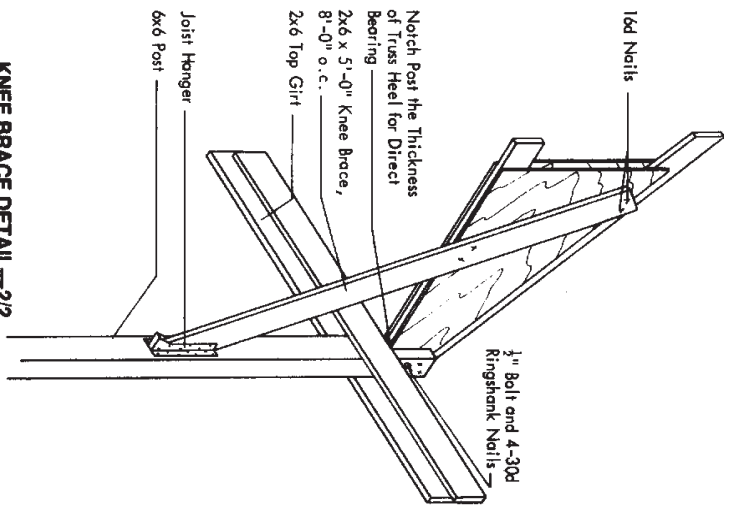


PLYWOOD OVER TRUSS—1/2

Note:
 Approximately 90 - 4' x 8' plywood sheets are required for this roof.
 Leave 8" gap between panel ends and 1/4" gap between panel edges.
 Roof Sheathing (face grain perpendicular to framing).
 See Truss Page for Snow Zones ----- Truss Spacing -----

Total roof load, lb/sq ft	24"	48"	Identification Index*
15 psf (South) Zone 1	16/0	30/12 or 32/16	
25 psf (Central) Zone 2	20/0	36/16 or 42/20	
35 psf (North) Zone 3	"	42/20	
45 psf (North, heavy)	24/0	48/24	

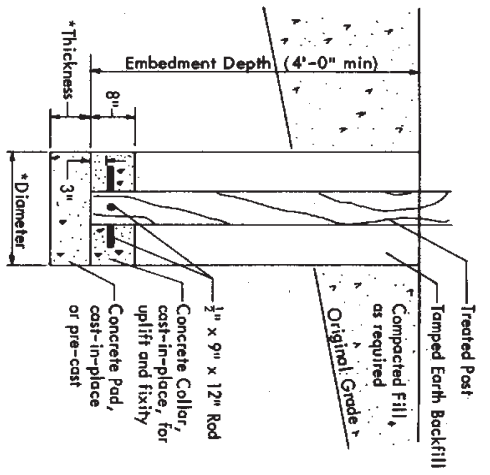
Nailing
 Plywood Thickness Nail Size
 1/2" or less 6d common
 5/8" - 7/8" 8d common
 Space nails 6" o.c. at panel support edges.



KNEE BRACE DETAIL—2/2

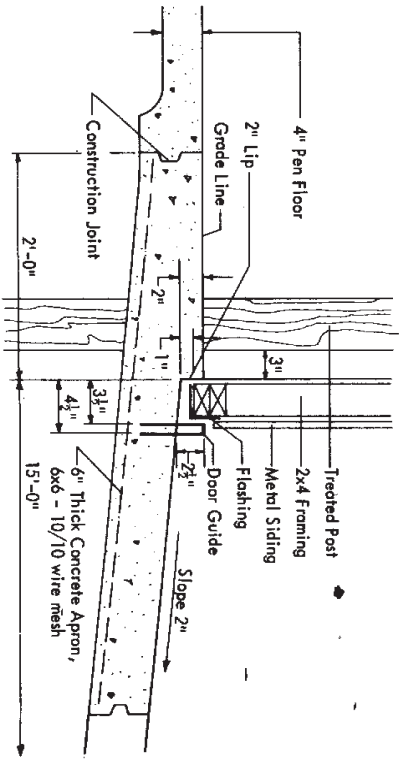
*Identification Index
 Sheathing grades are given an identification index, which indicates strength. The most commonly stocked panels are underlined.

Identification Index	Available thicknesses, in.
12/0	5/16"
16/0	5/16", 3/8"
20/0	5/16", 3/8"
24/0	3/8", 1/2"
30/12	5/8"
30/12	1/2", 5/8"
32/16	5/8"
36/16	5/8", 3/4", 7/8"
42/20	3/4", 7/8"
48/24	

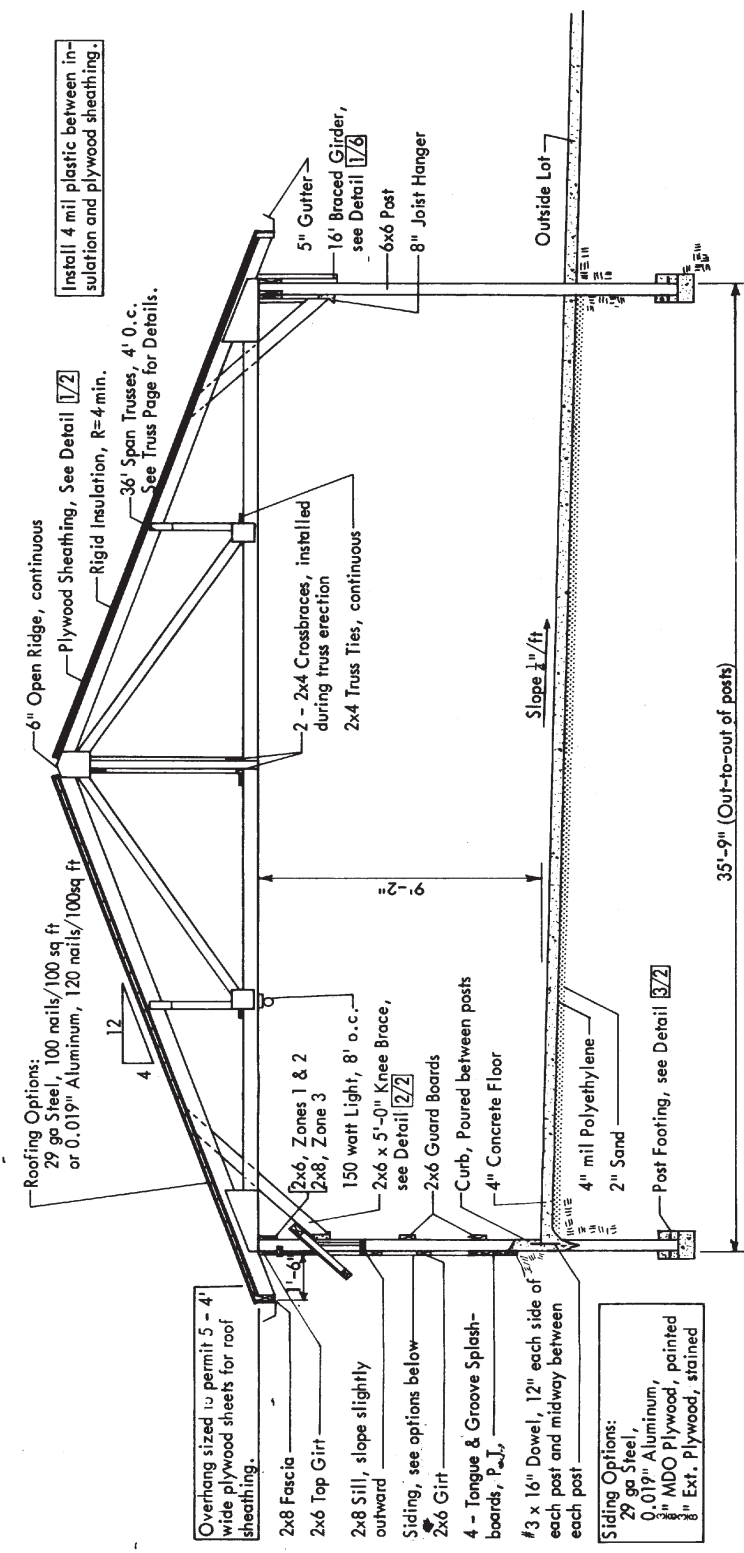


POST FOOTING DETAIL—3/2

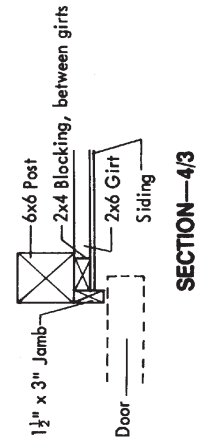
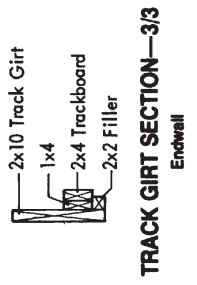
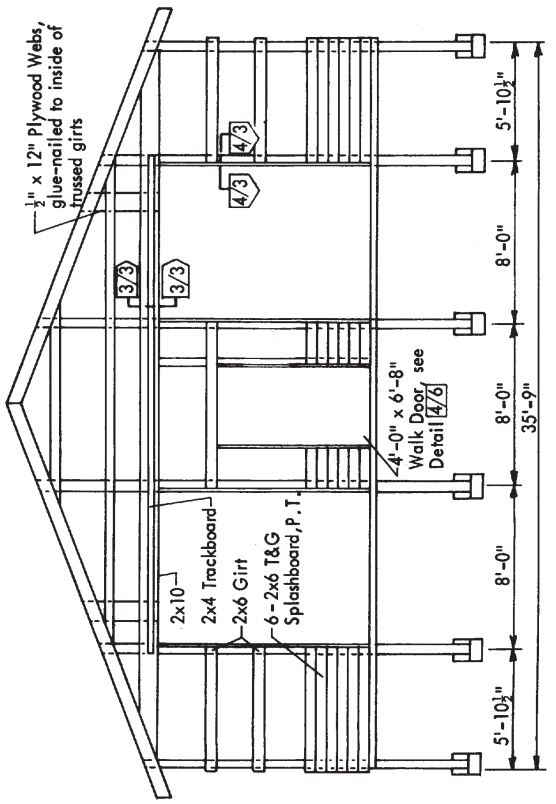
*Footing Size
 12" Dia x 6" Thick @ Endwall Posts
 16" Dia x 6" Thick @ Sidewall Posts
 Extend embedment depth as required to place footing on undisturbed soil. For large diameter footings, use smaller diameter auger and flare the bottom of the hole with Lineman's spoon.

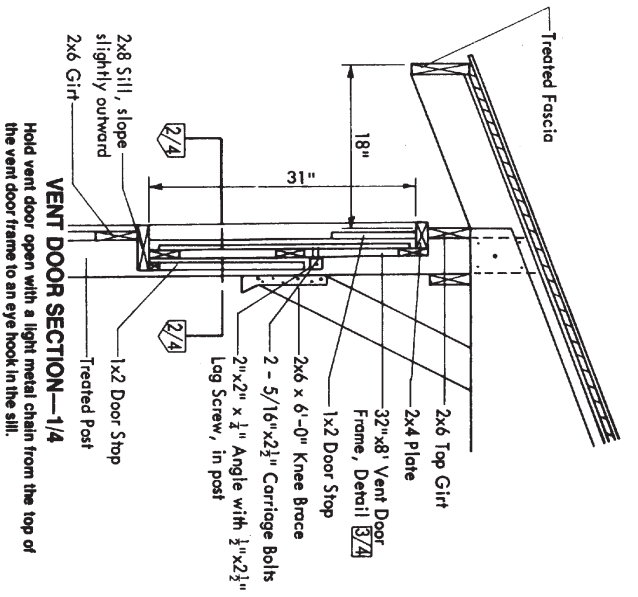


SLIDING DOOR APRON—4/2



CROSS SECTION THROUGH RESTING AREA — 1/3

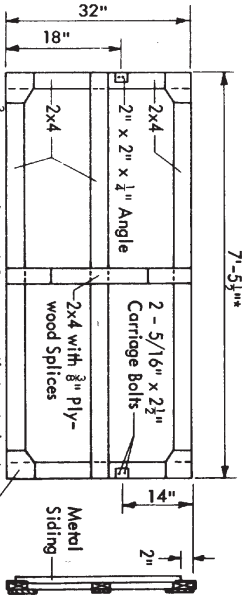




Hold vent door open with a light metal chain from the top of the vent door frame to an eye hook in the sill.

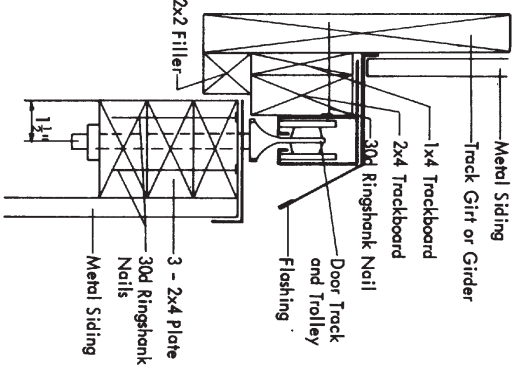
VENT DOOR SECTION—1/4

JAMB SECTION—2/4

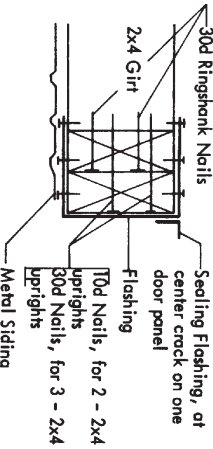


3/8" Exterior Plywood Gussets, nailed and glued; if 3/8" Exterior C-C Plywood is used for covering, delete the gussets.
* Alter this dimension for other than 6" wide building posts or other than 8' o.c.

32" x 8'-0" VENT DOOR FRAME—3/4

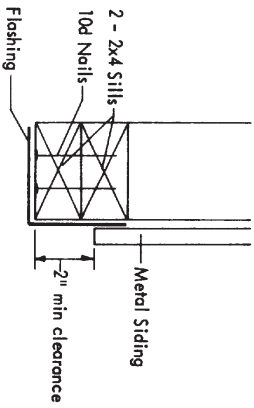


DOOR TRACK ASSEMBLY—4/4

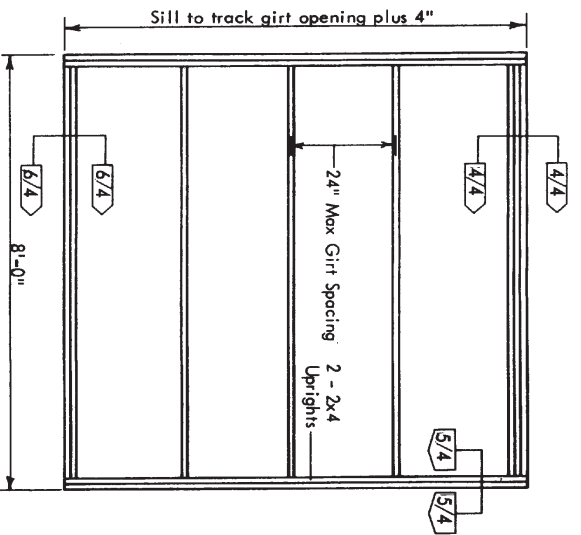


Extend flashing around uprights and nail to girts and uprights.

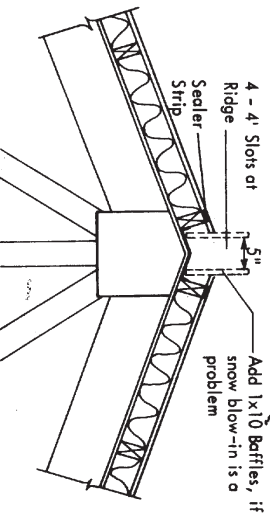
UPRIGHT SECTION—5/4



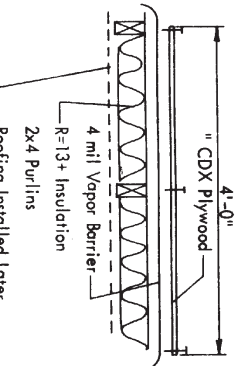
SILL SECTION—6/4



SINGLE SLIDING DOOR—7/4



ALTERNATE—OPEN RIDGE VENT DETAIL—8/4



Fabricate 4x8 and 4x16 panels upside down. Invert and install the panels, staggering the end joints.

ALTERNATE—INSULATED ROOF PANELS—9/4

Reduce heat gain in summer and heat loss in winter.

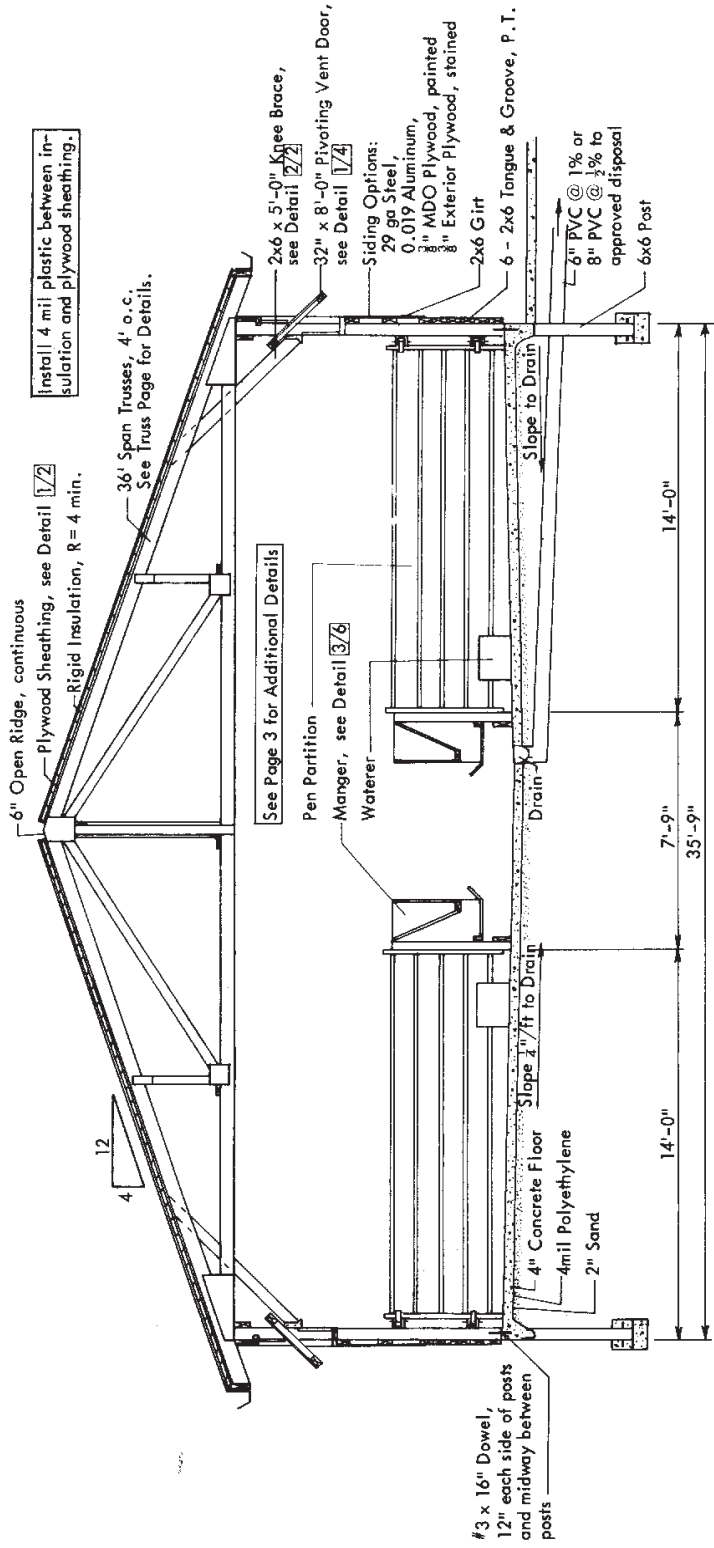
MWPS MIDWEST PLAN SERVICE

OPEN FRONT CALF BARN

Naturally Ventilated
Resting Area & Group Pens

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Install 4 mil plastic between insulation and plywood sheathing.

6" Open Ridge, continuous Plywood Sheathing, see Detail 1/2
Rigid Insulation, R = 4 min.

36' Span Trusses, 4' o.c.
See Truss Page for Details.

See Page 3 for Additional Details

Pen Partition

Manger, see Detail 3/6

Waterer

2x6 x 5'-0" Knee Brace, see Detail 2/2

32" x 8'-0" Pivoting Vent Door, see Detail 1/4

Siding Options:
29 ga Steel,
0.019 Aluminum,
3/8" MDO Plywood, painted
8" Exterior Plywood, stained

2x6 Girt

6 - 2x6 Tongue & Groove, P. T.

6" PVC @ 1% or
8" PVC @ 3/2% to
approved disposal

6x6 Post

#3 x 16" Dowel,
12" each side of posts
and midway between
posts

4" Concrete Floor

4 mil Polyethylene

2" Sand

Slope 1/4" / ft to Drain

Drain

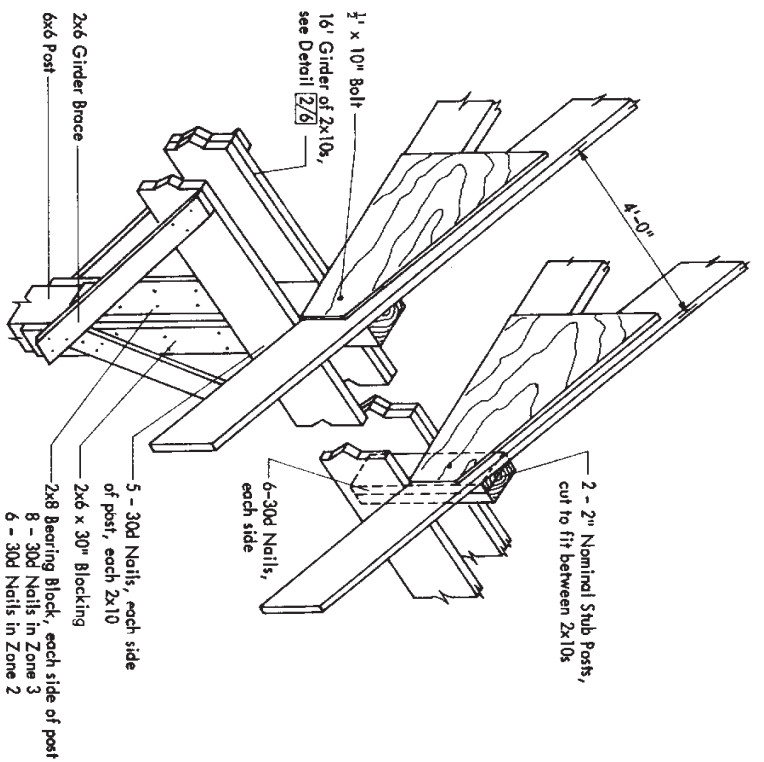
Slope to Drain

14'-0"

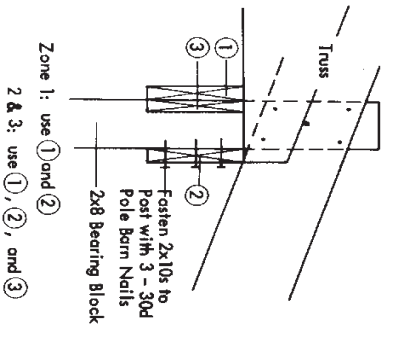
7'-9"

35'-9"

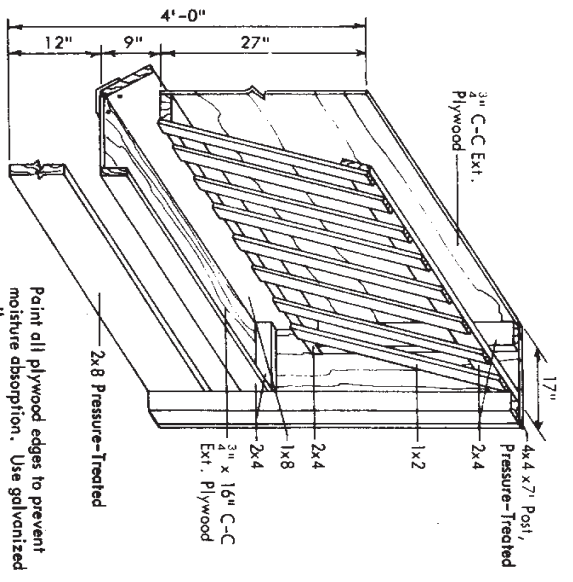
CROSS SECTION THROUGH CALF PENS—1/5



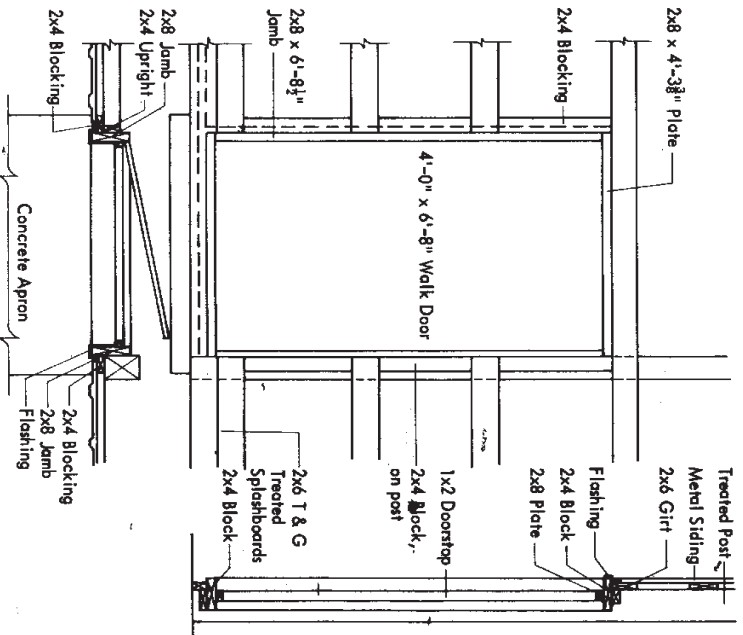
16' BRACED GIRDER DETAIL—1/6



16' BRACED GIRDER SECTION—2/6



MANGER DETAIL—3/6



WALK DOOR DETAIL—4/6