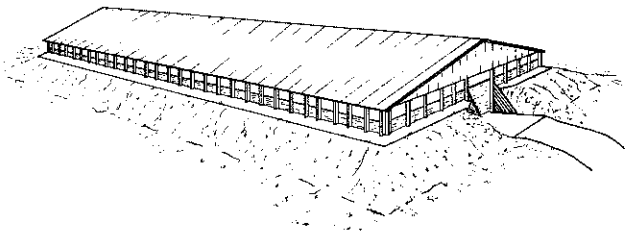
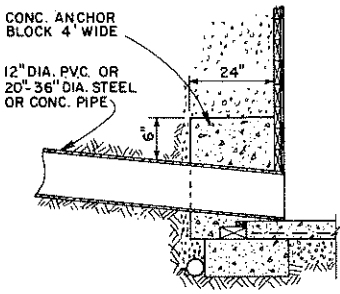


PLAN

SCALE 0' 4' 8' 12'

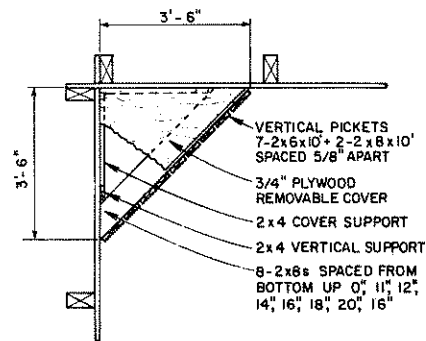


NO. COWS	LENGTH NEEDED FOR 200 DAY STORAGE - 10 FT. DEEP		
	INPUT RATE (ft <sup>3</sup> /cow-day)		
	1.8 <sup>①</sup>	2.0 <sup>②</sup>	2.3 <sup>③</sup>
80	60	64	76
100	72	80	92
120	88	96	112
140	104	112	128
160	116	128	148
180	132	144	168
200	144	160	184



INLET PIPE DETAIL A

SCALE



PICKET DAM DETAIL B

SCALE 12" 6" 0 1' 2'

NOTES:

- EXCAVATE TO GOOD BEARING, 2.5 FT. BELOW GRADE TO PROVIDE FILL FOR BERM.
- SPREAD & COMPACT FILL IN 8 INCH LAYERS.
- PROVIDE DRAINAGE COMPLETELY AROUND WALLS.
- ALL LUMBER IN CONTACT WITH MANURE OR SOIL SHOULD BE PRESSURE PRESERVATIVE TREATED (P.P.T.).
- ADD TEMPORARY INTERIOR BRACING WHEN BACK-FILLING BERM AND PLACING CONC. BERM SLAB.
- IF ROOF OPTION IS OMITTED ADD 4 CORNER PICKET DAMS & PROVIDE FOR LIQUID REMOVAL.
- DESIGN BASED ON EQUIV. FLUID PRESSURE OF 60 LBS/FT<sup>3</sup>.
- DESIGN DEPTH OF 10 FEET.

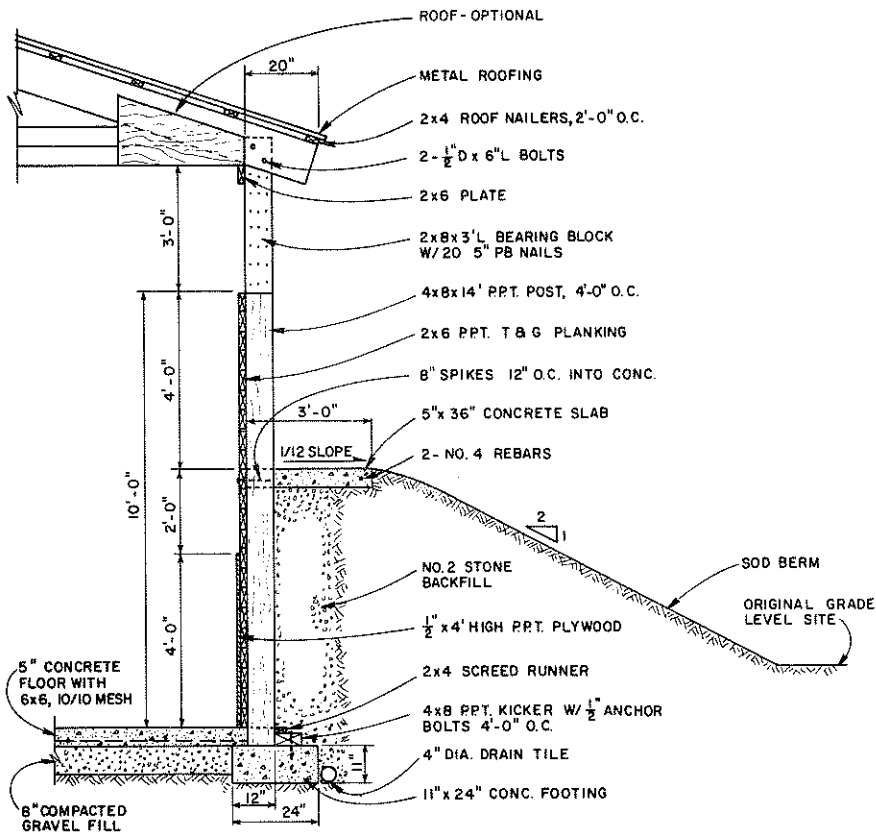
- MANURE ONLY
- MANURE + MILKING CENTER WASTE
- MANURE + MILKING CENTER WASTE + PRECIPITATION

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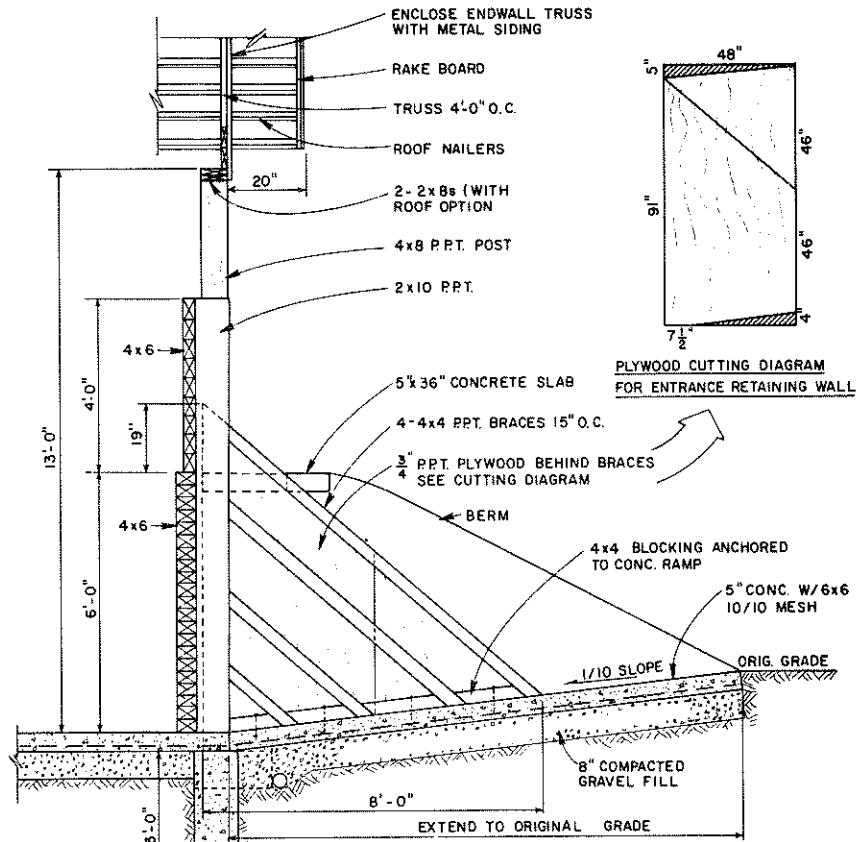


**SIDEWALL SECTION C-C**

SCALE 12' 6' 0' 1' 2'

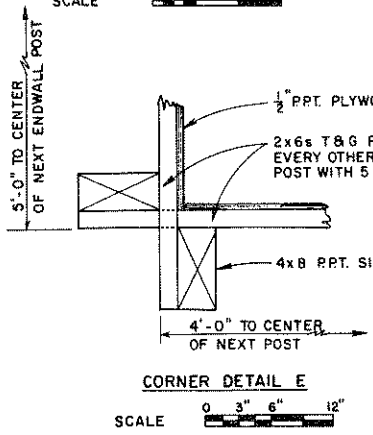
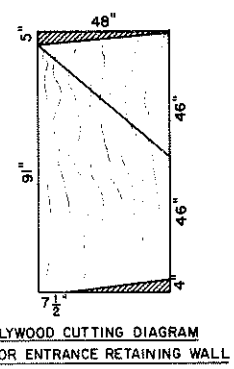
**NOTE**

DRAWING DIMENSIONS ARE TO ACTUAL SCALE, BUT LUMBER SIZES ARE NOMINALLY IDENTIFIED.



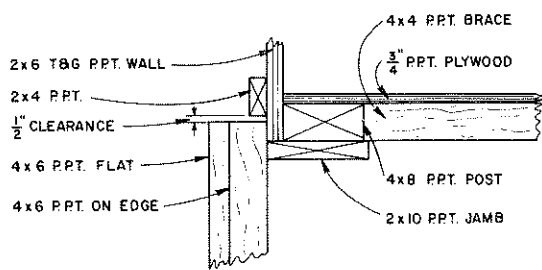
**MANURE BARRIER & ENTRANCE DETAIL D-D**

SCALE 12' 6' 0' 1' 2'



**CORNER DETAIL E**

SCALE 0 3" 6" 12"

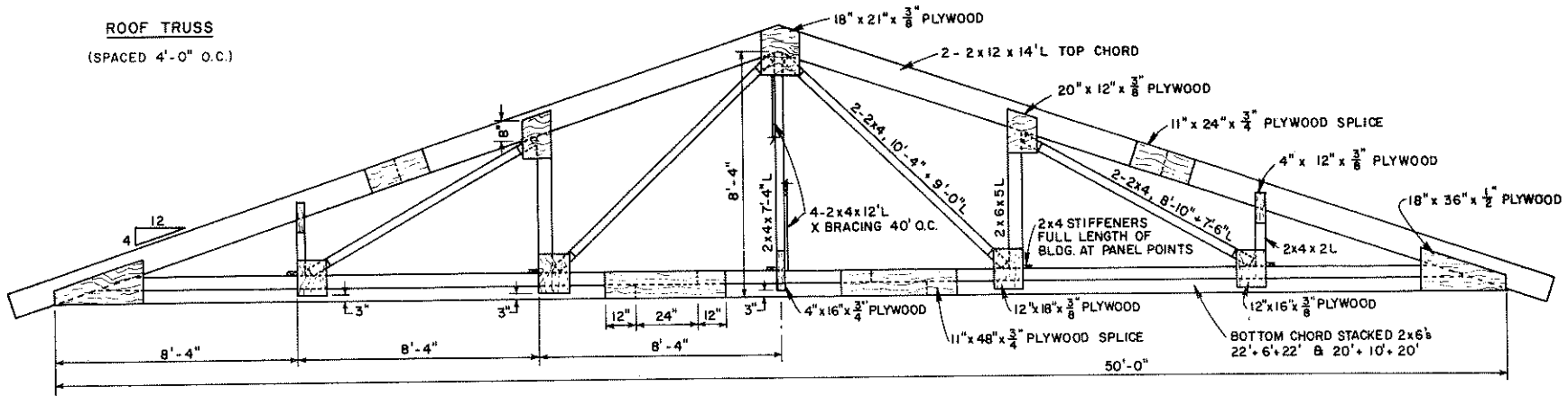


**BARRIER DETAIL F**

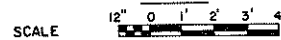
SCALE 0 3" 6" 12"

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**ROOF TRUSS**  
(SPACED 4'-0" O.C.)



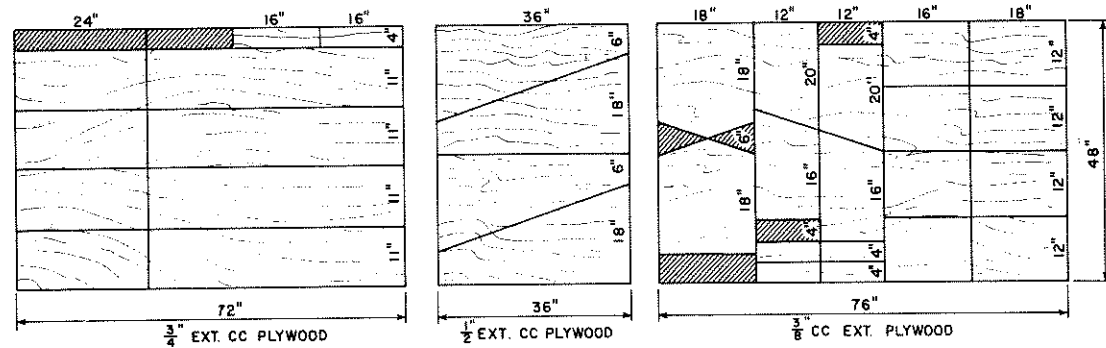
**TRUSS**



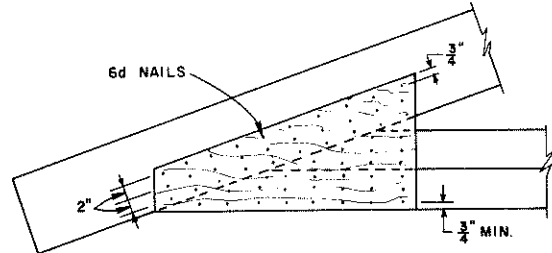
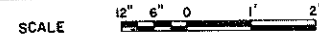
**NOTES**

DESIGN SHOULD BE ADJUSTED TO FIT LOCAL CONDITIONS

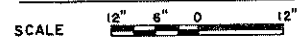
- TRUSS DESIGN ADAPTED FROM MIDWEST PLAN SERVICE MWPS-9, PAGE 54-55.
- DESIGN FACTORS:
  - SPAN 50'-0"
  - SPACING 4'-0" O.C.
  - ROOF SLOPE 4/12
  - ROOF SNOW LOAD 36 lb/ft<sup>2</sup>
  - ROOF DEAD LOAD 7 lb/ft<sup>2</sup>
- LUMBER
  - 15% MOISTURE CONTENT,  $f_b = 1500$  psi
  - 2x6s & 2x12s HEM-FIR NO. 1
  - 2x4s NO. 2
  - USE CLEAN SMOOTH LUMBER
  - DO NOT USE CUPPED OR TWISTED LUMBER.
- PLYWOOD GUSSETS
  - USE EXTERIOR GRADE STRUCTURAL C-C PLYWOOD. GUSSETS ARE GLUED ON BOTH SIDES OF JOINTS.
- GLUE
  - USE RESORCINOL RESIN GLUE FOLLOWING MANUFACTURERS DIRECTIONS FULLY.
- JOINTS
  - SPACE ROWS OF 6d NAILS 2" APART ACROSS LUMBER GRAIN AND NAIL 4" APART WITH GRAIN. DO NOT PLACE NAILS WITHIN 3/4" OF LUMBERS EDGE.
- LAP JOINTS
  - USE C-C EXT. PLYWOOD, AS WIDE AS WEB, GLUED AND NAILED TO EACH SIDE OF EACH JOINT. LAP AT LEAST 6" OVER THE WEB AND CHORD.
- SPLICE
  - GLUE-NAIL TOP AND BOTTOM CHORD SPLICES TO EACH SIDE OF CHORD. USE 3/4" EXT. C-C PLYWOOD THE SAME WIDTH AS THE CHORD AND LAP AT LEAST 12" ON EACH MEMBER WITH FACE GRAIN PARALLEL TO THE CHORD.
- ASSEMBLY
  - ASSEMBLE IN JIG & APPLY GUSSETS ON ONE SIDE. INVERT & APPLY GUSSETS ON OTHERSIDE, AND NAIL ON THE DOUBLE WEBS. STORE TRUSS FLAT TO CURE AT LEAST 24 HOURS.



**PLYWOOD GUSSET CUTTING DIAGRAM FOR ONE TRUSS**



**HEEL GUSSET NAILING DIAGRAM**



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