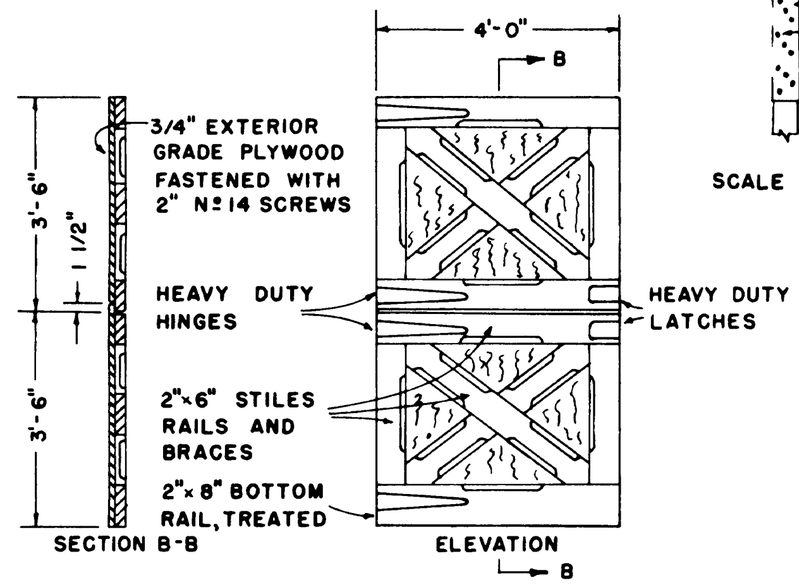
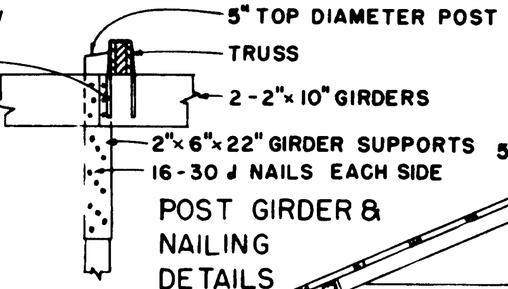


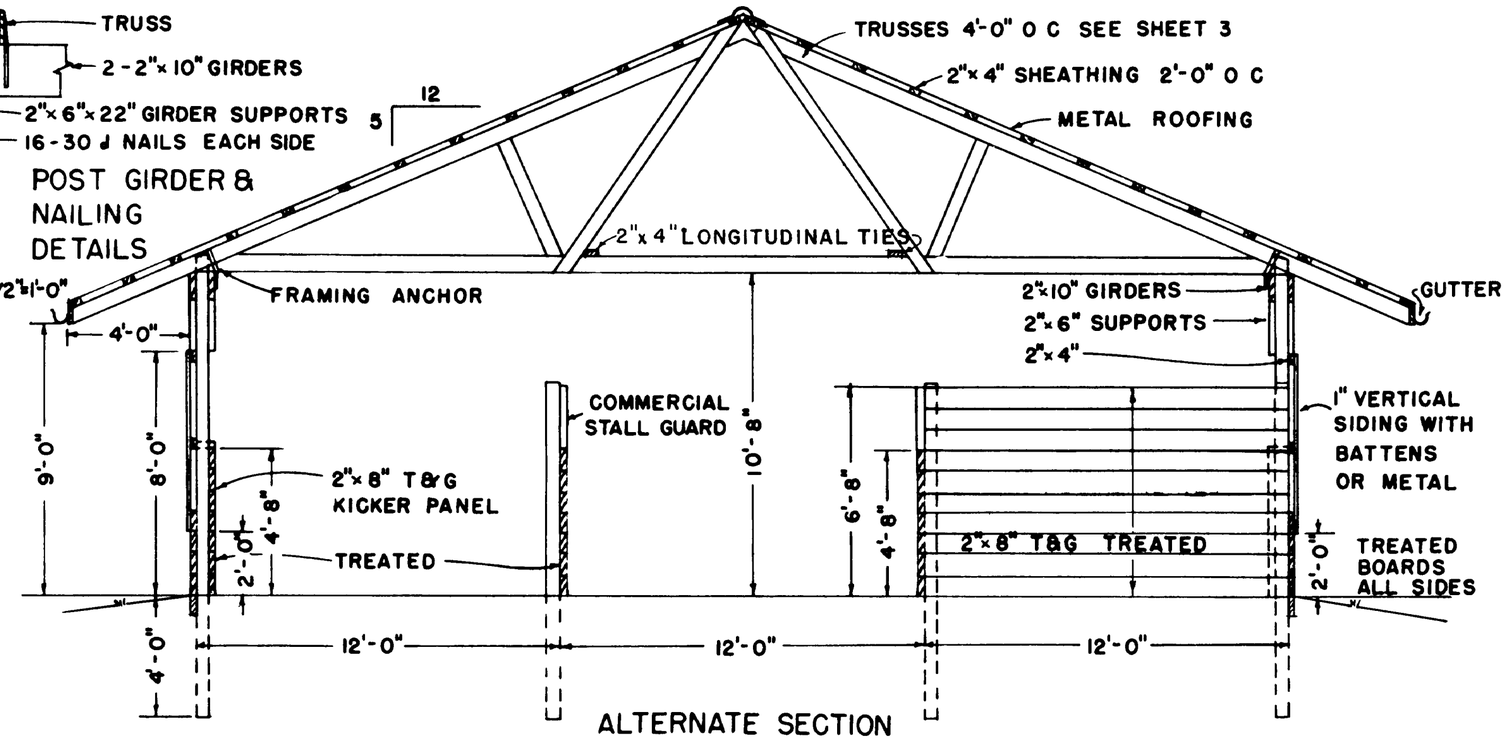
STALL DOOR DETAILS

SCALE 1/2"=1'-0"



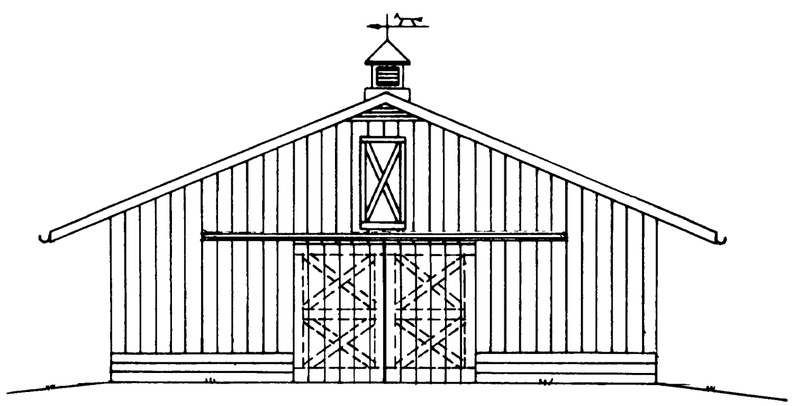
POST GIRDER & NAILING DETAILS

SCALE 1/2"=1'-0"



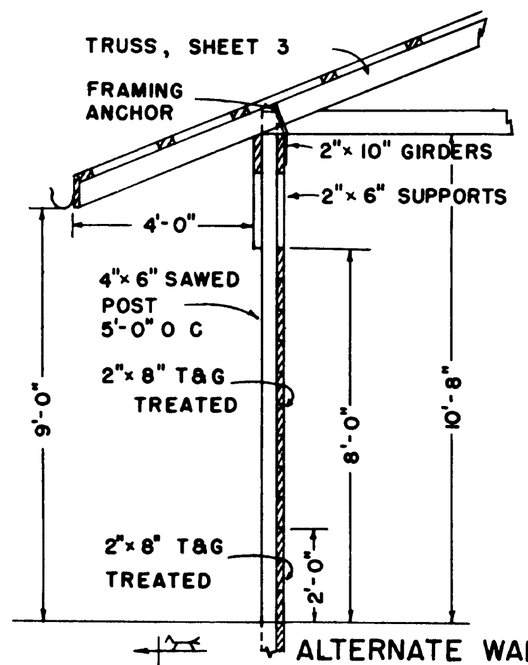
ALTERNATE SECTION A - A

SCALE 1/4"=1'-0"



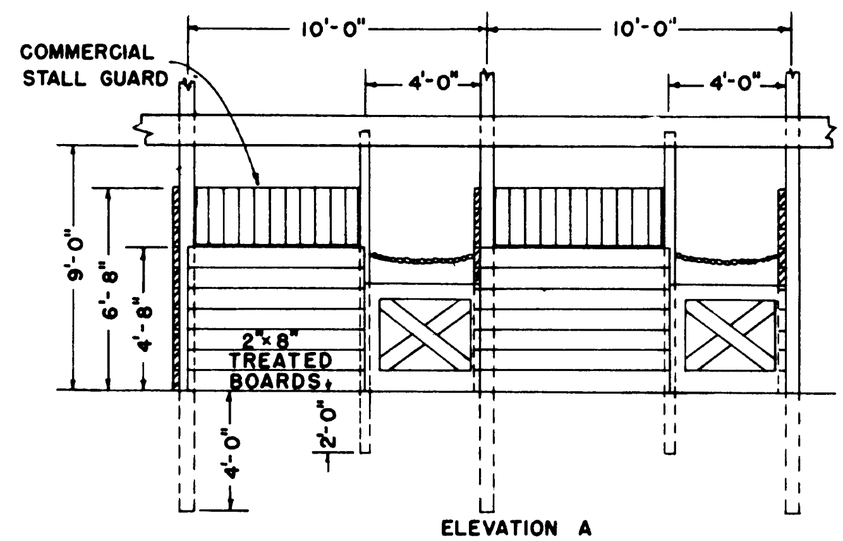
END ELEVATION

SCALE 1/8"=1'-0"



ALTERNATE WALL DETAIL

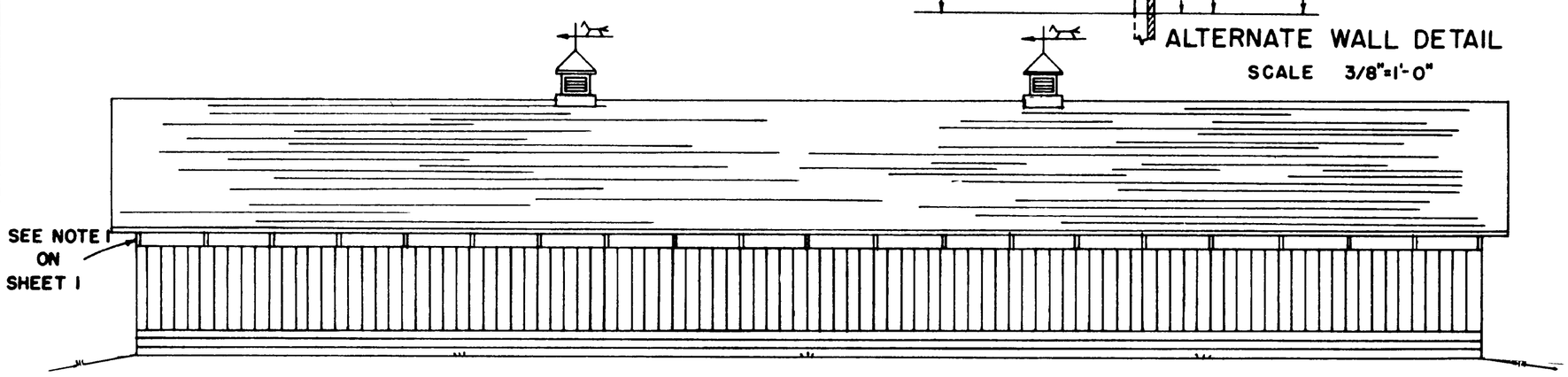
SCALE 3/8"=1'-0"



ELEVATION A

STALL DETAIL

SCALE 1/4"=1'-0"



SIDE ELEVATION

SCALE 1/8"=1'-0"

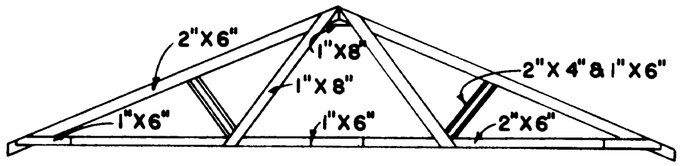
COOPERATIVE EXTENSION WORK IN
AGRICULTURE AND HOME ECONOMICS
DEPARTMENT OF AGRICULTURAL ENGINEERING
COLLEGE OF AGRICULTURE
UNIVERSITY OF KENTUCKY
AND
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

HORSE BARN-17STALL

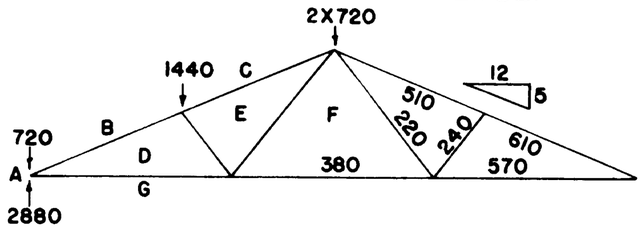
VA. '67 | EX 6011 | SHEET 2 OF 3

REVIEWED

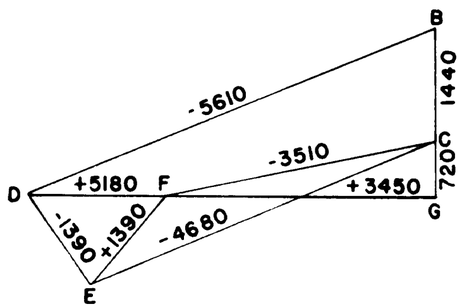
36-FT SPAN, 5 IN 12 PITCH, NAILED TRUSSED RAFTER (NO CEILING) SPACED 4 FT. ON CENTER



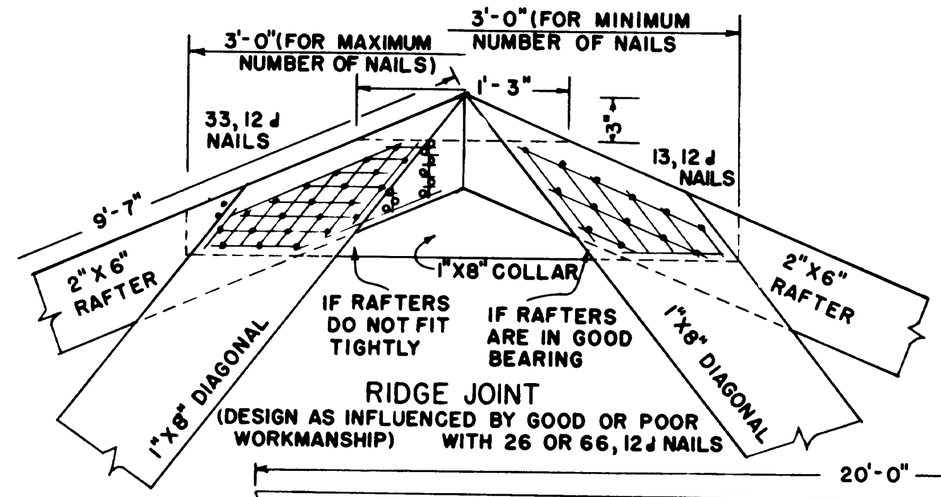
VIEW OF FRONT OF ASSEMBLY



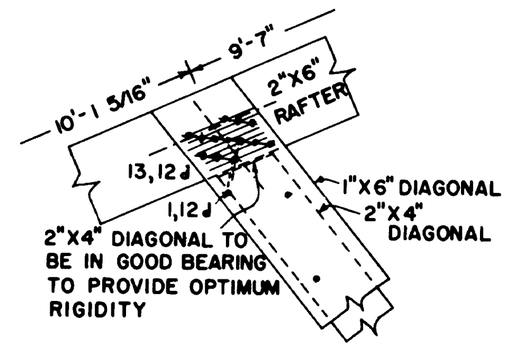
LOAD AND STRESS DIAGRAMS



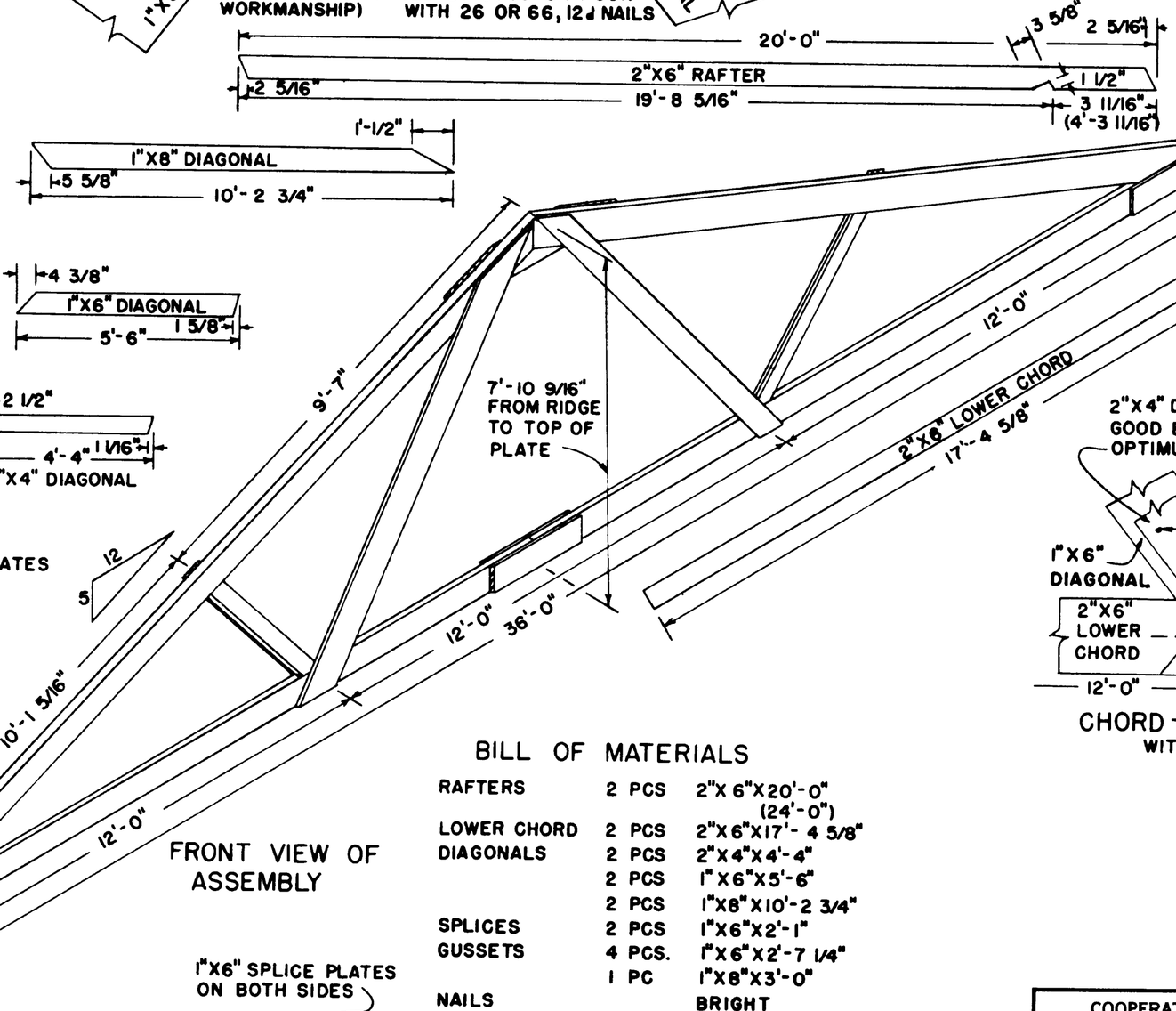
DEAD LOAD & LIVE LOAD ON ROOF: 40 LB/SQ FT
TRUSSED RAFTERS SPACED 4'-0" O C
LUMBER Nº1 SOUTHERN PINE OR DOUGLAS FIR
C=135 PSI COMPRESSION PARALLEL TO GRAIN
F=1500 PSI MODULUS OF RUPTURE
E=1,760,000 PSI MODULUS OF ELASTICITY
CAMBER 5/8" AT CENTER SPLICE



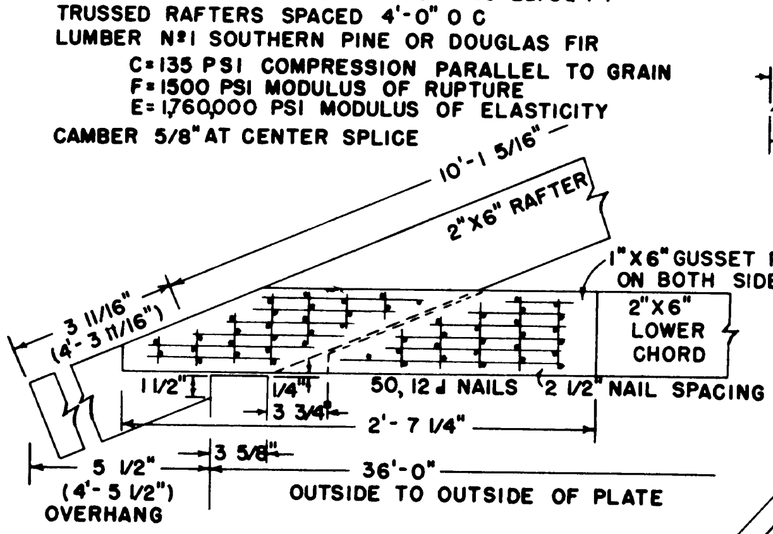
RIDGE JOINT
(DESIGN AS INFLUENCED BY GOOD OR POOR WORKMANSHIP) WITH 26 OR 66, 12 d NAILS



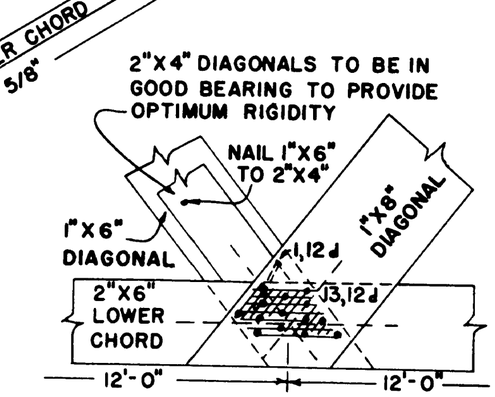
RAFTER-DIAGONAL JOINT
WITH 14, 12 d NAILS



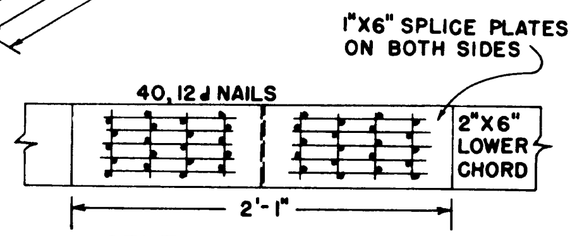
FRONT VIEW OF ASSEMBLY



HEEL JOINT
WITH 50, 12 d NAILS



CHORD-DIAGONAL JOINT
WITH 14, 12 d NAILS



CENTER-SPLICE JOINT
WITH 40, 12 d NAILS

NOTES.

- USE HELICALLY THREADED NAILS FOR PERMANENTLY TIGHT JOINTS THROUGHOUT STRUCTURE
- USE HARDENED NAILS IN DRY SOUTHERN PINE
- DRIVE ALL NAILS FROM FRONT EXCEPT THOSE SHOWN AS (O)
- USE TEMPLATES FOR LOCATING ALL NAILS TO ASSURE MAXIMUM EFFICIENCY AND EFFECTIVENESS

BILL OF MATERIALS

RAFTERS	2 PCS	2"X 6"X20'-0" (24'-0")
LOWER CHORD	2 PCS	2"X6"X17'- 4 5/8"
DIAGONALS	2 PCS	2"X4"X4'-4"
	2 PCS	1"X6"X5'-6"
	2 PCS	1"X8"X10'-2 3/4"
SPLICES	2 PCS	1"X6"X2'-1"
GUSSETS	4 PCS.	1"X6"X2'-7 1/4"
	1 PC	1"X8"X3'-0"
NAILS		BRIGHT
230-270 PCS	12 d	3 1/4"X0.148" (44 LBS)
OR		
NAILS		HARDENED
230-270 PCS	12 d	3 1/4"X0.135" (37 LBS.)

COOPERATIVE EXTENSION WORK IN
AGRICULTURE AND HOME ECONOMICS
DEPARTMENT OF AGRICULTURAL ENGINEERING
COLLEGE OF AGRICULTURE
UNIVERSITY OF KENTUCKY
AND
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

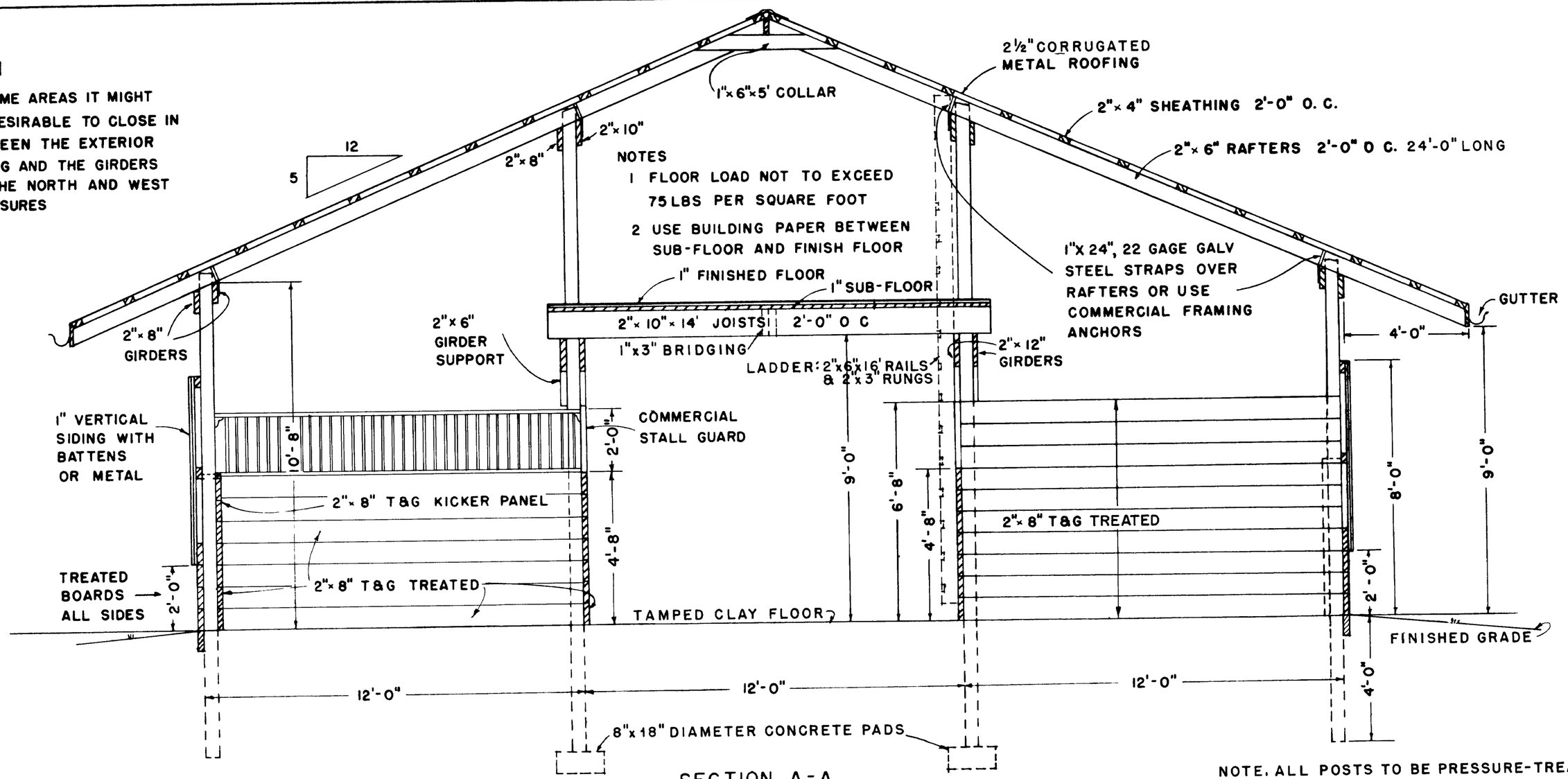
HORSE BARN-17 STALL

VA. '67 | EX 6011 | SHEET 3 OF 3

REVIEWED 1972

NOTE 1

IN SOME AREAS IT MIGHT BE DESIRABLE TO CLOSE IN BETWEEN THE EXTERIOR SIDING AND THE GIRDERS ON THE NORTH AND WEST EXPOSURES



SECTION A-A

SCALE 3/8"=1'-0"

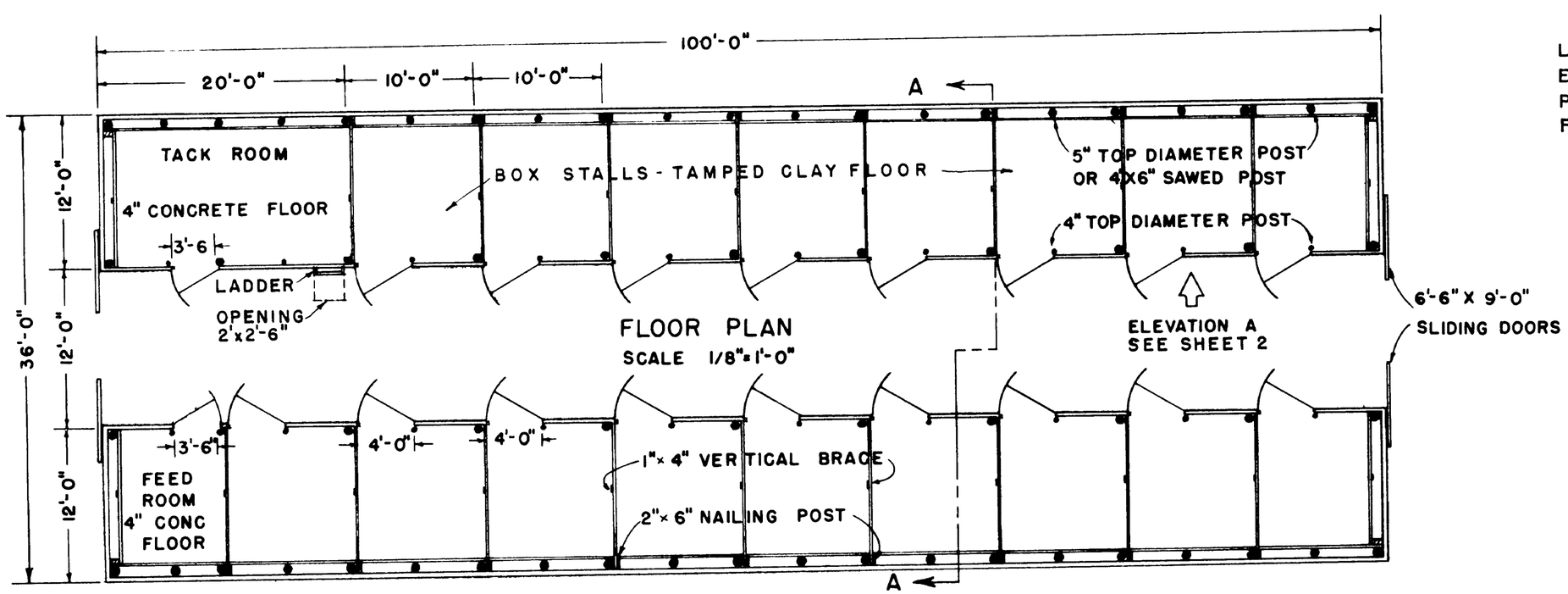
NOTES

1 FLOOR LOAD NOT TO EXCEED 75 LBS PER SQUARE FOOT

2 USE BUILDING PAPER BETWEEN SUB-FLOOR AND FINISH FLOOR

NOTE. ALL POSTS TO BE PRESSURE-TREATED WITH PRESERVATIVE TO A RETENTION OF 8 POUNDS PER CUBIC FOOT.

LOCATE AND USE PROPER TYPE OF EQUIPMENT INSIDE OF STALLS TO PREVENT INJURY OF HORSES. PLACE FEED BOX AND WATERERS IN CORNERS.



FLOOR PLAN

SCALE 1/8"=1'-0"

"THESE PLANS ARE FOR USE AS A CONSTRUCTION GUIDE IF A CONSTRUCTION CONTRACT IS TO BE MADE, WRITTEN SPECIFICATIONS ARE NEEDED."

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

DEPARTMENT OF AGRICULTURAL ENGINEERING
COLLEGE OF AGRICULTURE
UNIVERSITY OF KENTUCKY
AND
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

HORSE BARN-17 STALL

VA. '67	EX 6011	SHEET 1 OF 3

REVIEWED 1972