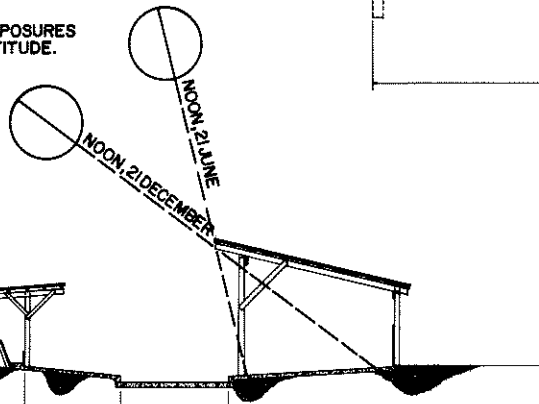
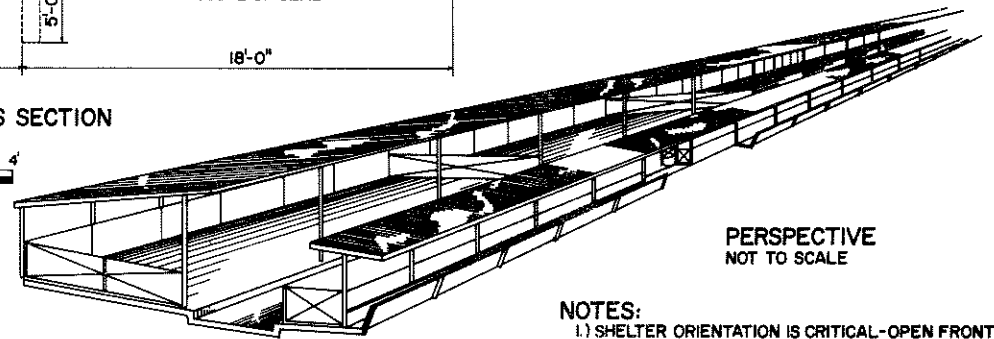
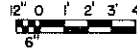


SEASONAL SUN EXPOSURES AT 40° NORTH LATITUDE.



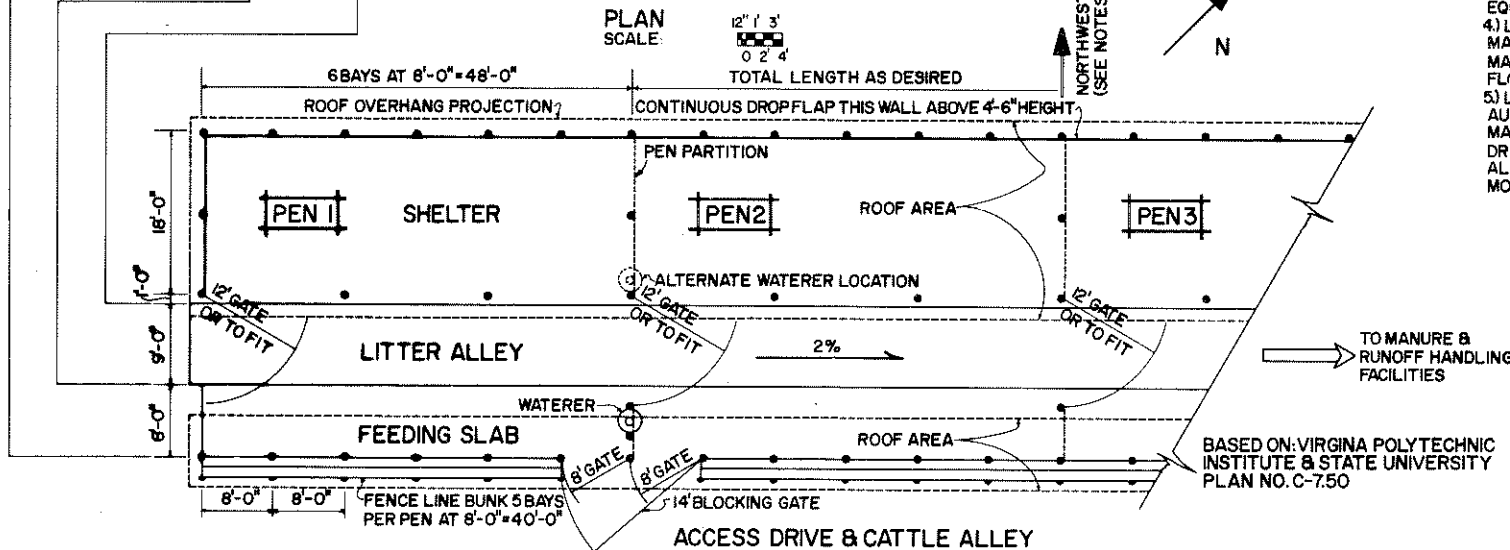
CROSS SECTION

SCALE.



NOTES:

- 1.) SHELTER ORIENTATION IS CRITICAL - OPEN FRONT SHOULD FACE TO SOUTHEAST.
- 2.) SLOPED FLOOR AREAS ARE SELF-CLEANING NO BEDDING IS REQUIRED.
- 3.) IT MAY BE NECESSARY TO INCREASE BUNK ROOF CLEARANCE FOR FEED WAGON PASSAGE - MEASURE EQUIPMENT TO BE USED.
- 4.) LITTER ALLEY WIDTH VARIABLE, DEPENDING ON MANURE HANDLING EQUIPMENT. SELF-LOADING MANURE SPREADERS REQUIRE GREATER WIDTH WITH FLOATATION TIRES.
- 5.) LITTER ALLEY CAN BE SCRAPED BY TRACTOR OR AUTOMATIC ALLEY CLEANERS; ALLEY FLUSHING MAY BE POSSIBLE IN WARM CLIMATE. ELECTRIC DRIVE THRU GATES ARE SUGGESTED ALONG LITTER ALLEY TO FACILITATE MANURE-SCRAPING TRACTOR MOVEMENT.



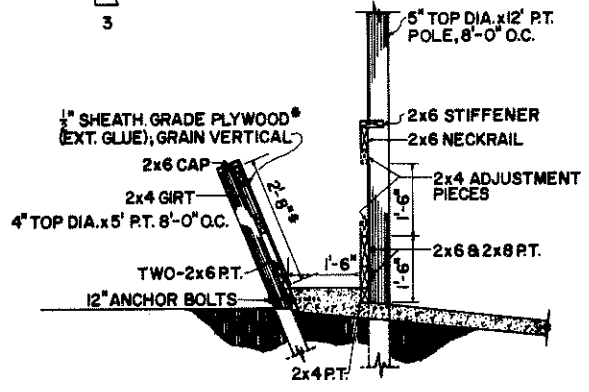
BASED ON: VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY PLAN NO. C-750

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

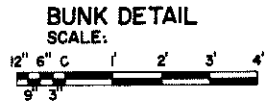
AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

BEEF FEEDING PENS COUNTER-SLOPED

VA. '78 6297 SHEET 1 OF 2

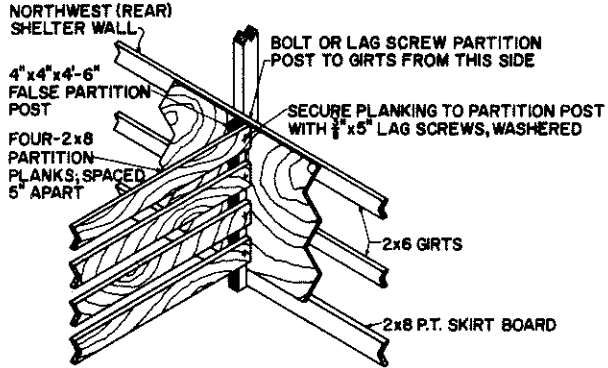


*PLYWOOD BUNK LINER CUT IN 2'-8" LENGTHS FROM STANDARD SHEET (3 PIECES PER SHEET)



AREA OF ANIMAL USE	NUMBER OF HEAD PER 48' PEN	
	50*	63
RESTING SHELTER ¹	17.5	13.9
FEEDING SLAB	7.7	6.1
TOTAL SLOPED FLOOR	25.2	20.0
LITTER ALLEY	8.6	6.8
TOTAL ANIMAL AREA ²	33.8	26.8
	AVAILABLE FEEDING SPACE IN/H/D	
FEED BUNK	8.9	7.0

*50 HD/PEN RECOMMENDED HOT WEATHER PEN POPULATION UNTIL EXPERIENCE IS GAINED IN FACILITY MANAGEMENT.
1) DOES NOT INCLUDE FEED BUNK ROOF SHELTER.
2) TOTAL ANIMAL AREA IS 68% ROOFED.



PEN PARTITION DETAIL NOT TO SCALE

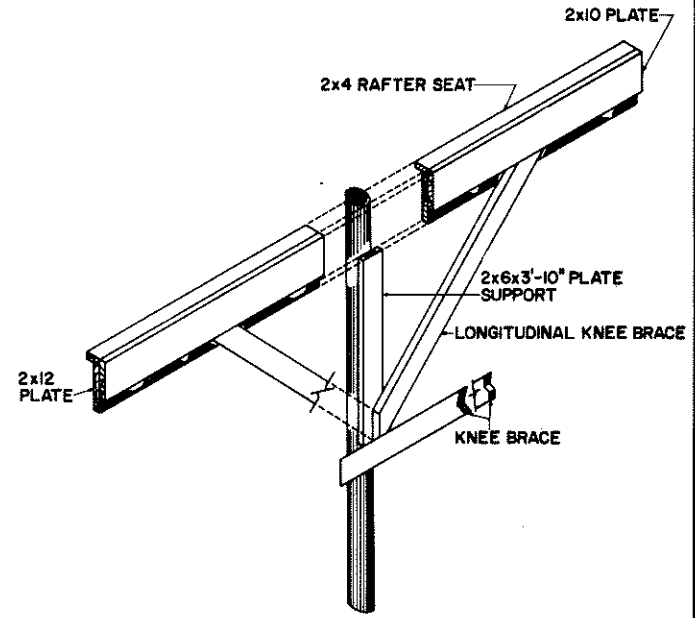
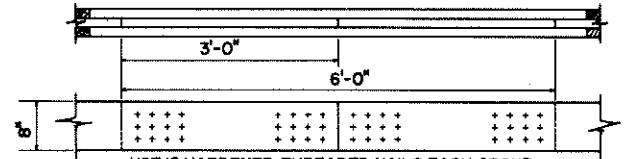
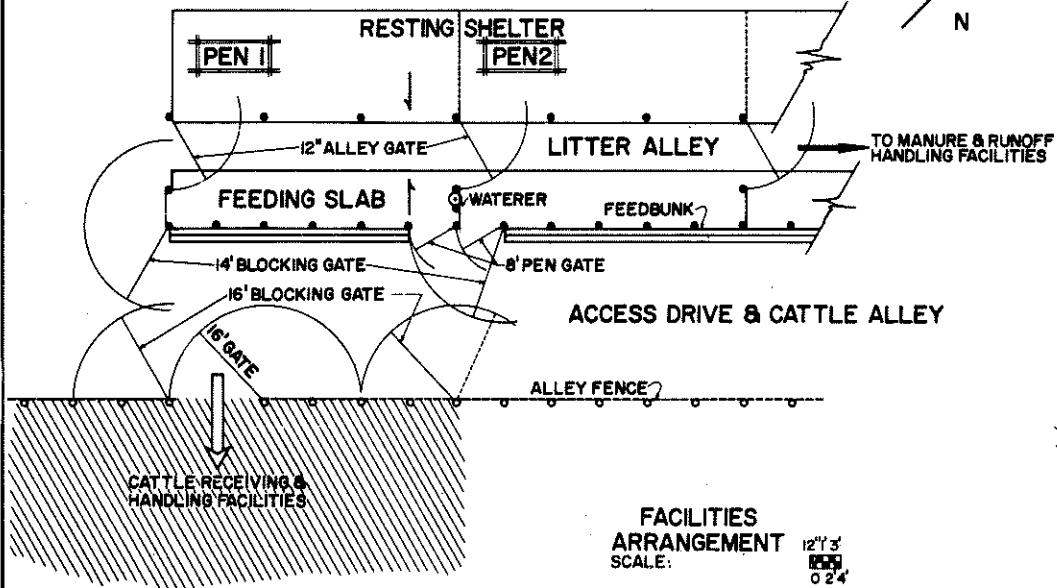


PLATE DETAIL NOT TO SCALE

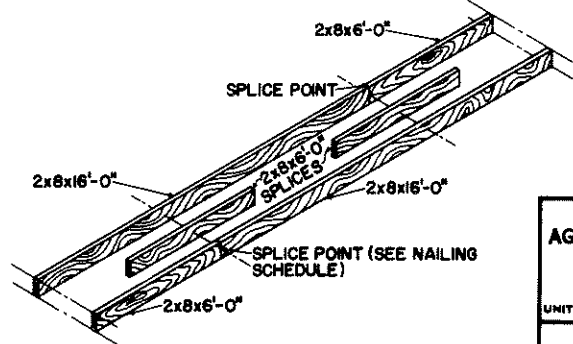


USE 12 HARDENED THREADED NAILS EACH GROUP 20D WITH LUMBER S4S, 50D WITH ROUGH LUMBER

SPliced RAFTER NAILING SCHEDULE NOT TO SCALE



FACILITIES ARRANGEMENT SCALE: 12' 3" 15' 0" 0 2 4'



ALTERNATE RAFTER DESIGN NOT TO SCALE

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING
BEEF FEEDING PENS COUNTER-SLOPED
VA. '78 6297 SHEET 2 OF 2