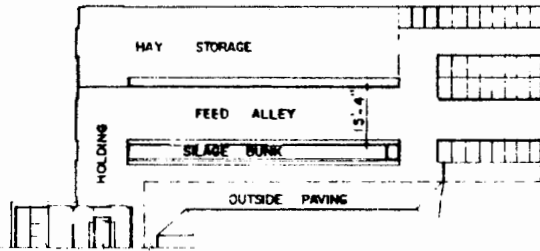
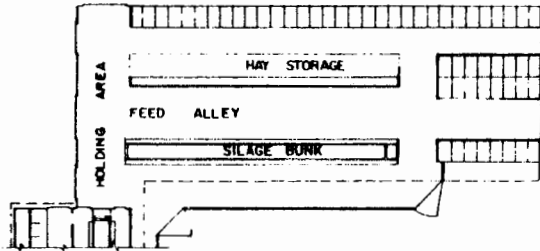


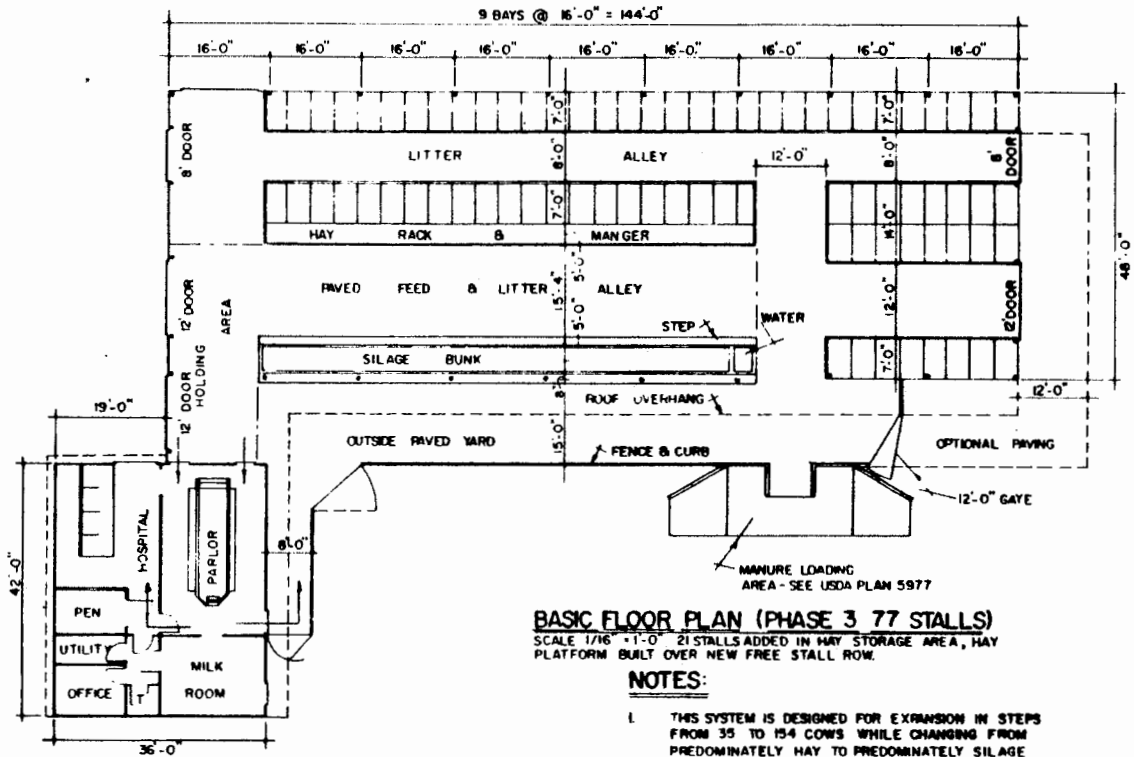
DEVELOPMENT STAGES



PHASE 1 - 35 STALLS
SCALE 1" = 30'-0"
PRIMARY HAY FEEDING.



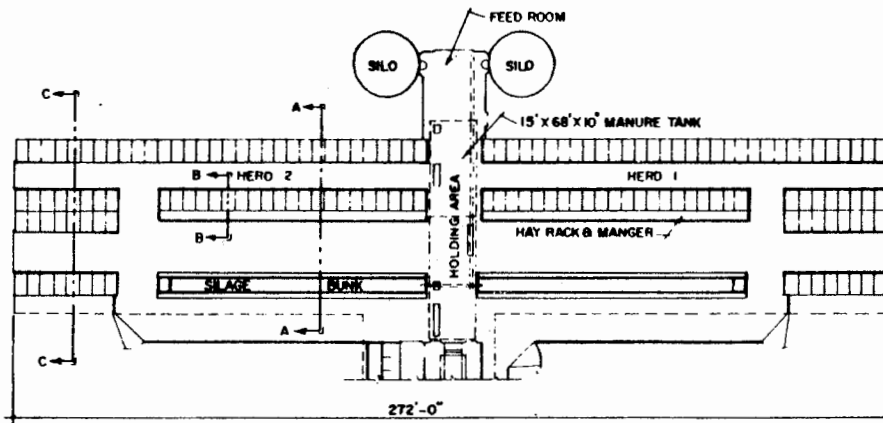
PHASE 2 - 56 STALLS
SCALE 1" = 30'-0"
21 STALLS AND ALLEY ADDED IN HAY STORAGE AREA



BASIC FLOOR PLAN (PHASE 3 77 STALLS)
SCALE 1/16" = 1'-0" 21 STALLS ADDED IN HAY STORAGE AREA, HAY PLATFORM BUILT OVER NEW FREE STALL ROW.

NOTES:

1. THIS SYSTEM IS DESIGNED FOR EXPANSION IN STEPS FROM 35 TO 154 COWS WHILE CHANGING FROM PREDOMINATELY HAY TO PREDOMINATELY SILAGE FORMS OF FEED
2. FEED ALLEY WIDTH ADEQUATE TO ALLOW FEEDING WITH BELF-UNLOADING WAGONS AND HAY TRUCKS.
3. BUILDING SHOULD BE ORIENTED TO SOUTH.
4. CONTINUOUS RIDGE VENTILATOR RECOMMENDED.
5. ALL CONCRETE SHOULD BE AIR-ENTRAINED, 4-6% AIR BY VOLUME.



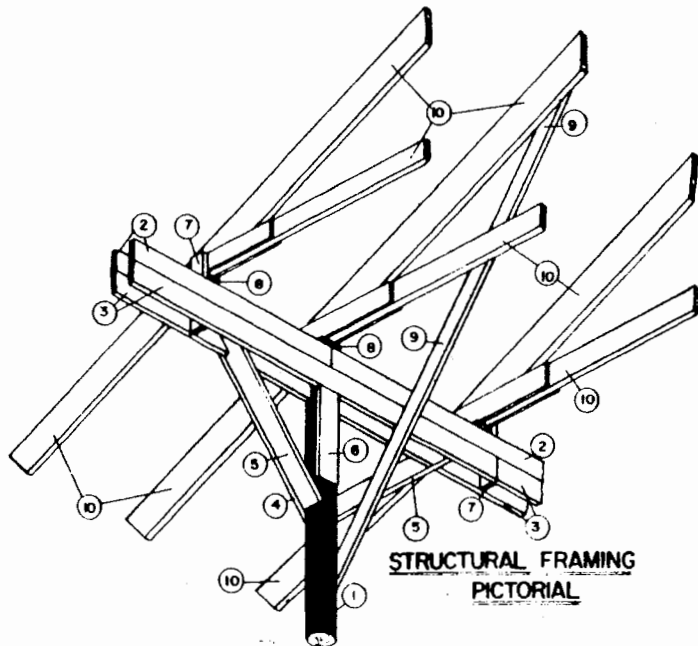
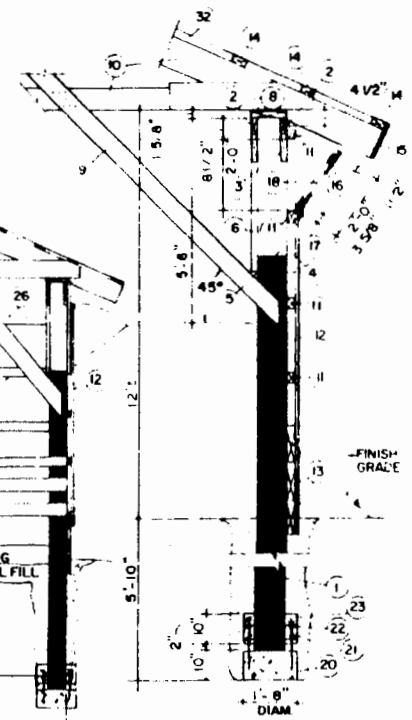
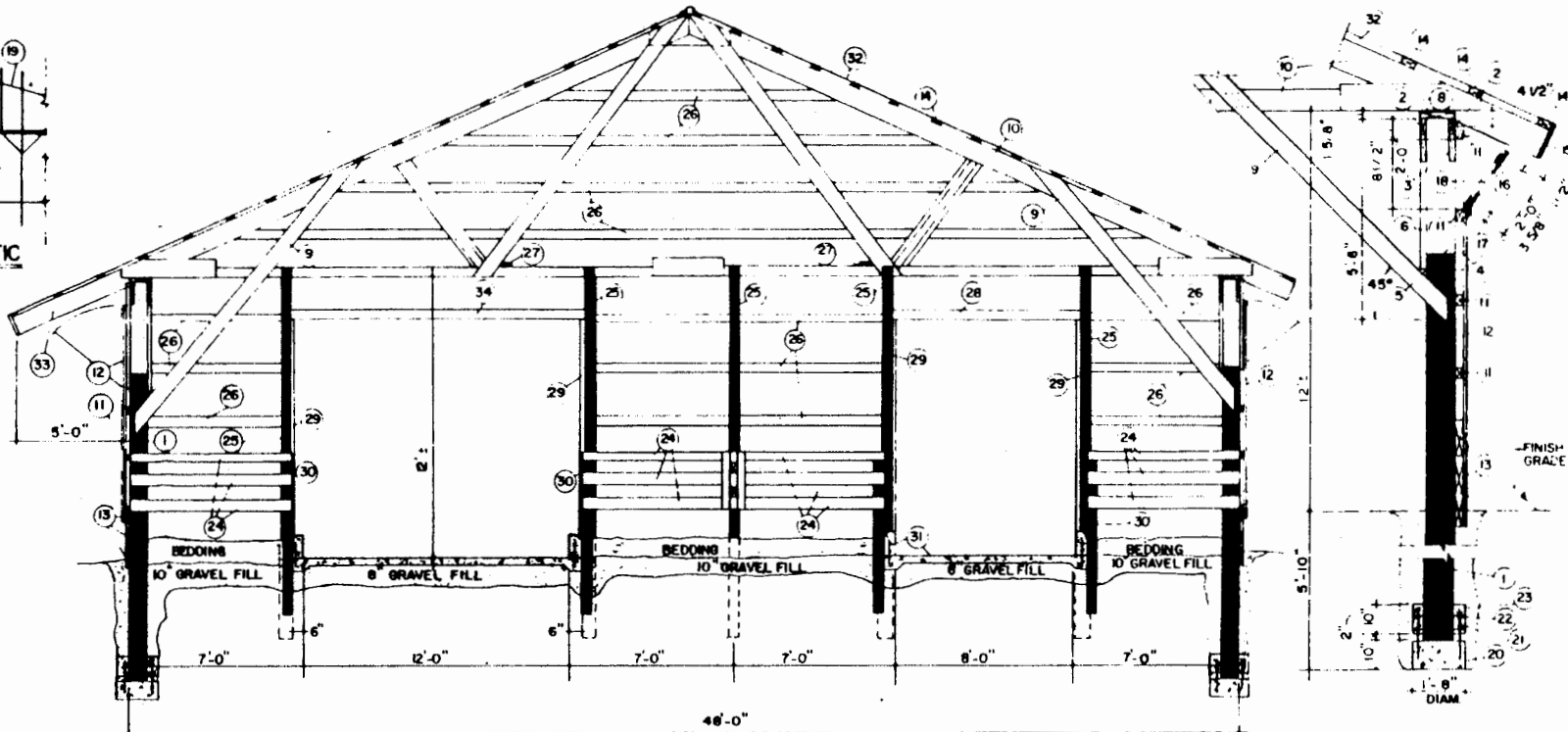
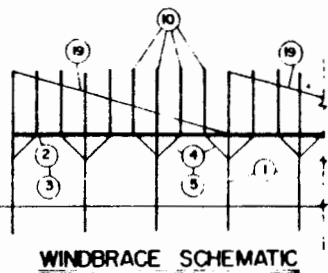
PHASE 4 154 STALLS

SCALE 1" = 30'-0"
SYSTEM CAN BE DOUBLED IN SIZE AT ANY PHASE, DOUBLING ALLOWS HERD DIVISION FEED ROOM & SILOS ADDED.



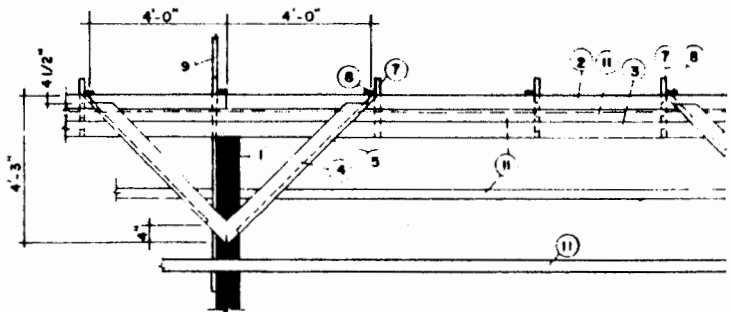
PARTIALLY OPEN FREE STALL HOUSING SYSTEM-35 TO 154 COWS

MASS. '67 EX. 6023 SHEET | OF 4



NOTES: & SPECIFICATIONS

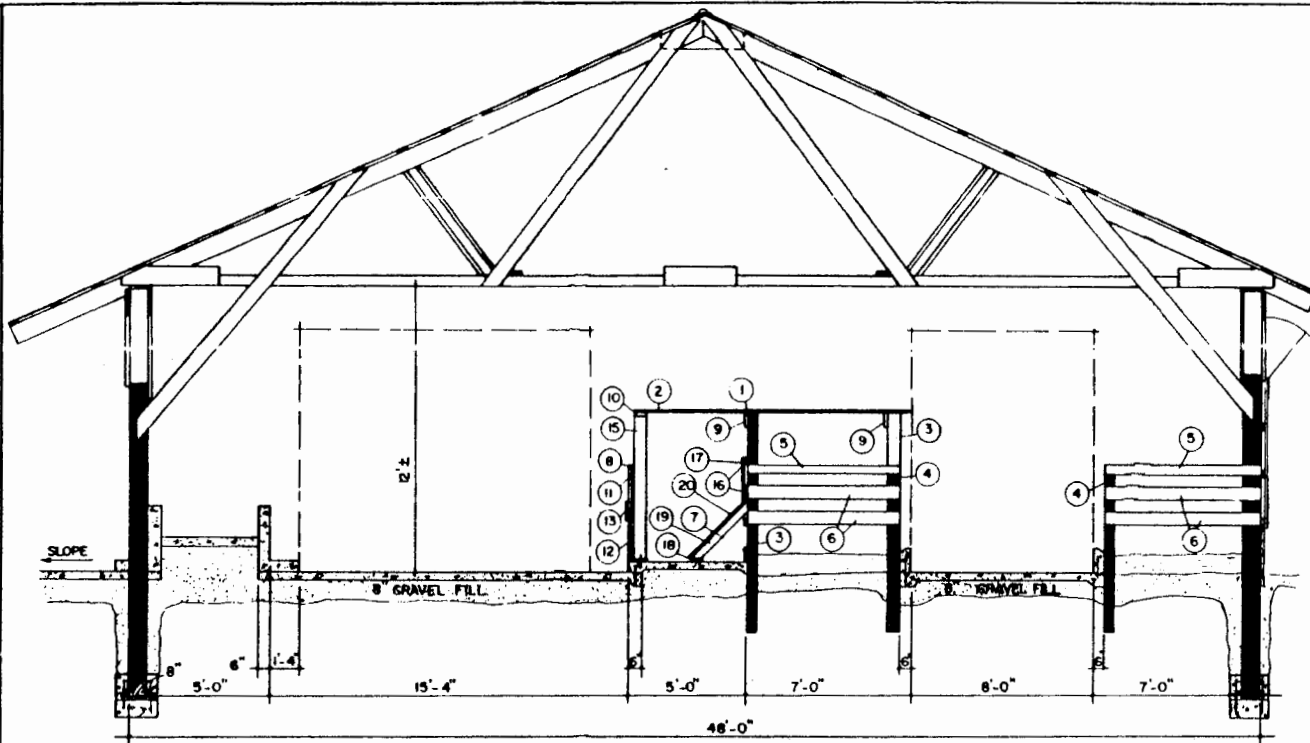
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| <p>1. 7" TOP DIAMETER X 17' PRESSURE TREATED POLE, 16'-0" O.C.</p> <p>2. 2" X 6" X 16" PLATE (LET OUTSIDE PLATES INTO POLE FACE)</p> <p>3. 2" X 10" X 16" PLATE</p> <p>4. 2" X 6" X 5'-7" KNEE BRACE MEMBER</p> <p>5. 2" X 6" X 5'-5" KNEE BRACE MEMBER, NOTCHED INTO POLE & CUT TO FIT BETWEEN PLATES.</p> <p>6. 2" X 6" X 3'-0" SCAB</p> <p>7. 2" X 6" X 1'-9" TRUSS TIE DOWN, 4' O.C.</p> <p>8. 2" X 4" X 9" TRUSS SEAT, 4' O.C.</p> <p>9. 2" X 6" X 15'-6" WIND BRACE 16' O.C.</p> <p>10. 48" TRUSS SEE DETAIL, SHEET 4</p> | <p>11. 2" X 4" GRTS, 2'-0" O.C.</p> <p>12. PLYWOOD (EXTERIOR TYPE) OR VERTICAL BOARD SIDING</p> <p>13. 2" X 12" X 16" PRESSURE TREATED PLANK</p> <p>14. 2" X 4" X 12" PURLIN 2'-0" O.C.</p> <p>15. 1" X 12" FUSCIA</p> <p>16. 1" X 4" DROP-DOWN WINDOW FRAMING</p> <p>17. STRAP HINGE</p> <p>18. 2" WIDE FIBERGLASS PANEL WINDOW</p> <p>19. WINDBRACE, 2" X 6" NAILED TO UNDER-SIDE OF TRUSS UPPER CHORDS.</p> <p>20. 20" DIAM. X 10" THICK CONCRETE FOOTING AT EACH STRUCTURAL POLE.</p> | <p>21. #3 (3/8") REINFORCING ROD, 1'-3" LONG.</p> <p>22. 60# NAILS (8 PER POLE) STAGGERED & DRIVEN 1/2" INTO POLE.</p> <p>23. CONCRETE TO BE POURED AFTER POLE IS SET.</p> <p>24. FREE STALL PARTITION PLANK</p> <p>25. 4" TOP DIAM. X 16" PRESSURE TREATED END WALL POLE</p> <p>26. 2" X 4" END WALL GRIT 2'-0" O.C.</p> <p>27. 2" X 6" WINDBRACE.</p> <p>28. 2-2" X 6" X 9'-0" DOOR HEADER</p> <p>29. 2" X 6" DOOR FRAME</p> <p>30. 4" TOP DIAM. X 7" PRESSURE TREATED STALL POST</p> <p>31. CONCRETE CURB & ALLEY FLOOR</p> <p>32. METAL ROOFING 2 1/2" CORR.</p> <p>33. 5" OVERHANG - SCAB 2" X 10" ONTO TRUSS UPPER CHORD</p> <p>34. 2-2" X 6" X 13'-0" DOOR HEADER</p> |
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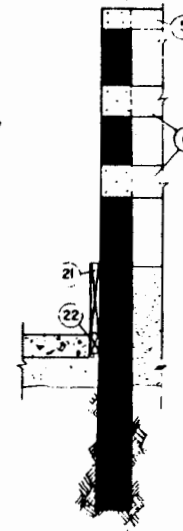
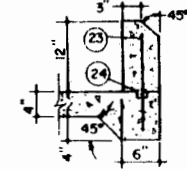
PARTIALLY OPEN FREE STALL HOUSING SYSTEM-35 TO 154 COWS

MASS. '67 EX. 6023 SHEET 2 OF 4



SECTION A-A
SCALE 1/4" = 1'-0"

CONCRETE CURB DETAIL
SCALE 3/4" = 1'-0"



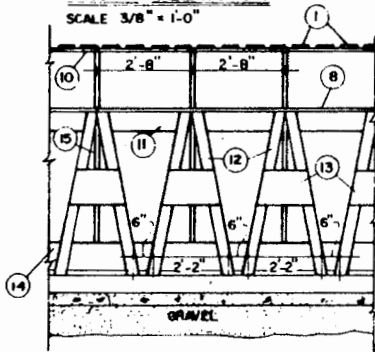
ALTERNATE CURB - POST DESIGNS
SCALE 3/4" = 1'-0"

NOTES:

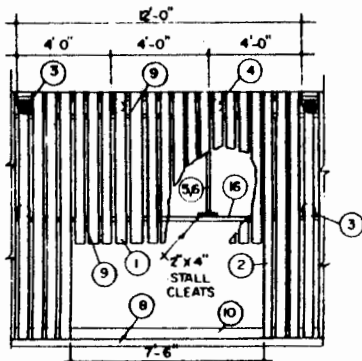
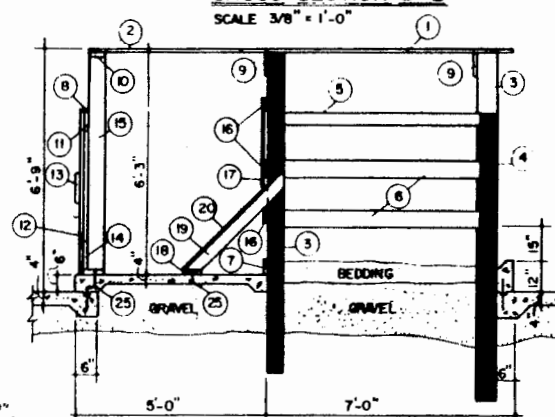
1. 2"x6"x8'-0"
2. 2"x6"x12'-0"
3. 4" TOP DIAMETER X9'-0" TREATED POLE
4. 4" TOP DIAMETER X7'-0" TREATED POLE
5. 2"x4"x6'-6"
6. 2"x6"x6'-6"
7. 2"x8"x12'-0"
8. 2"x4"x8'-0"
9. 2"x10"x12'-0"
10. 2"x6"x8'-0"
11. 2"x6"x12'-0"
12. 2"x4"x4'-9"
13. 1"x12"x1'-9"
14. 2"x10"x12'-0"
15. 2"x6"x6'-3", 2'-8" O.C.
16. 2"x4"x12'-0"
17. 1" BOARDS OR 1/2" EXTERIOR PLYWOOD
18. 2"x4"x8'-0"
19. 2"x4"x4'-0"
20. 1" BOARDS OR 1/2" EXTERIOR PLYWOOD
21. 2"x12"x12'-0" PRESSURE TREATED PLANK
22. 2"x4"x8'-0" PLANK
23. 3"x16" REINFORCING ROD 12'-0" O.C.
24. 1/2" KEY, FORMED WITH OILED 1" X 2"
25. 1/2" ANCHOR BOLT, 4' O.C.

HAY RACK & BALE PLATFORM DETAILS

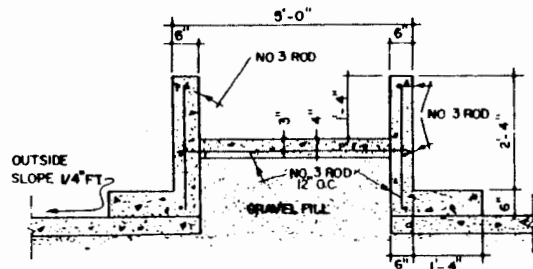
FRONT ELEVATION
SCALE 3/8" = 1'-0"



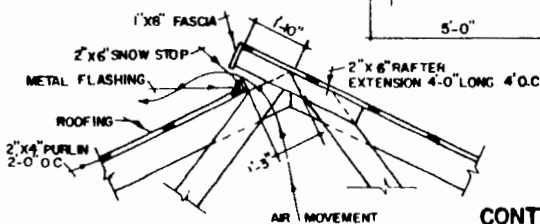
CROSS SECTION B-B
SCALE 3/8" = 1'-0"



PARTIAL PLAN
SCALE 1/4" = 1'-0"



SILAGE BUNK DETAIL
SCALE 1/2" = 1'-0"

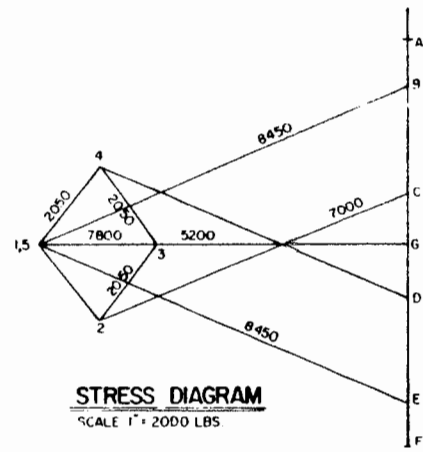
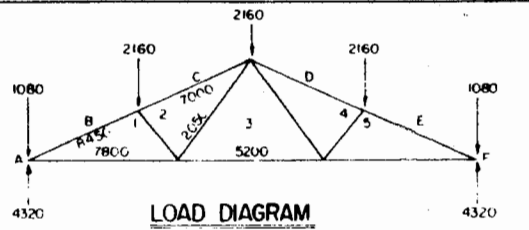


CONTINUOUS RIDGE VENTILATOR
SCALE 3/8" = 1'-0" (OPEN TO SOUTH)



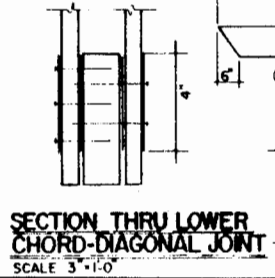
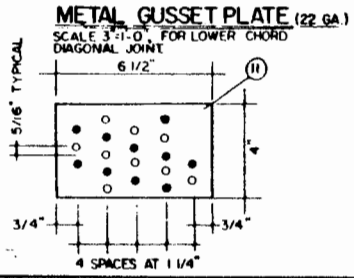
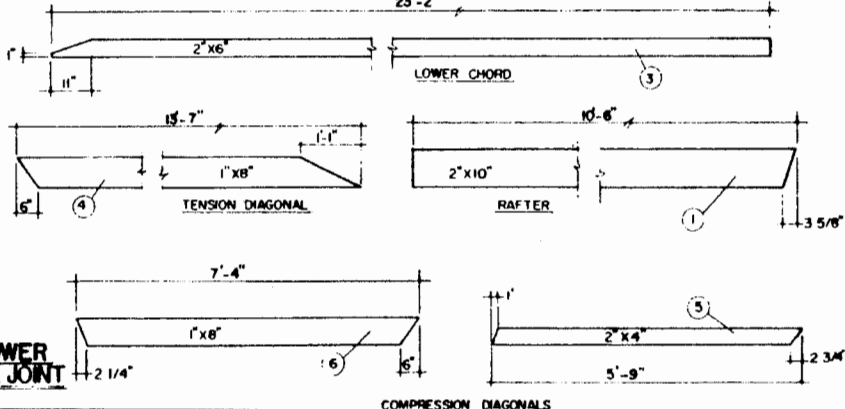
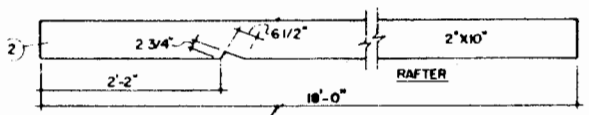
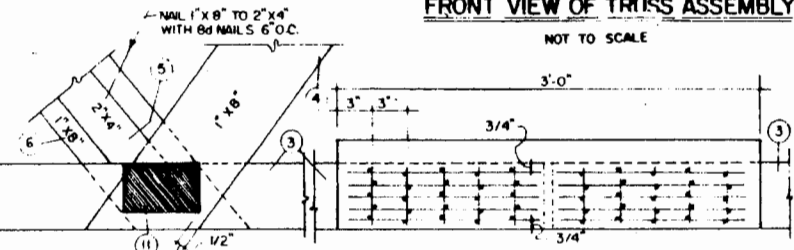
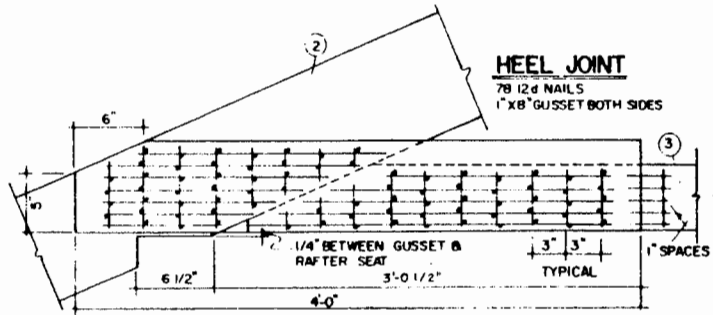
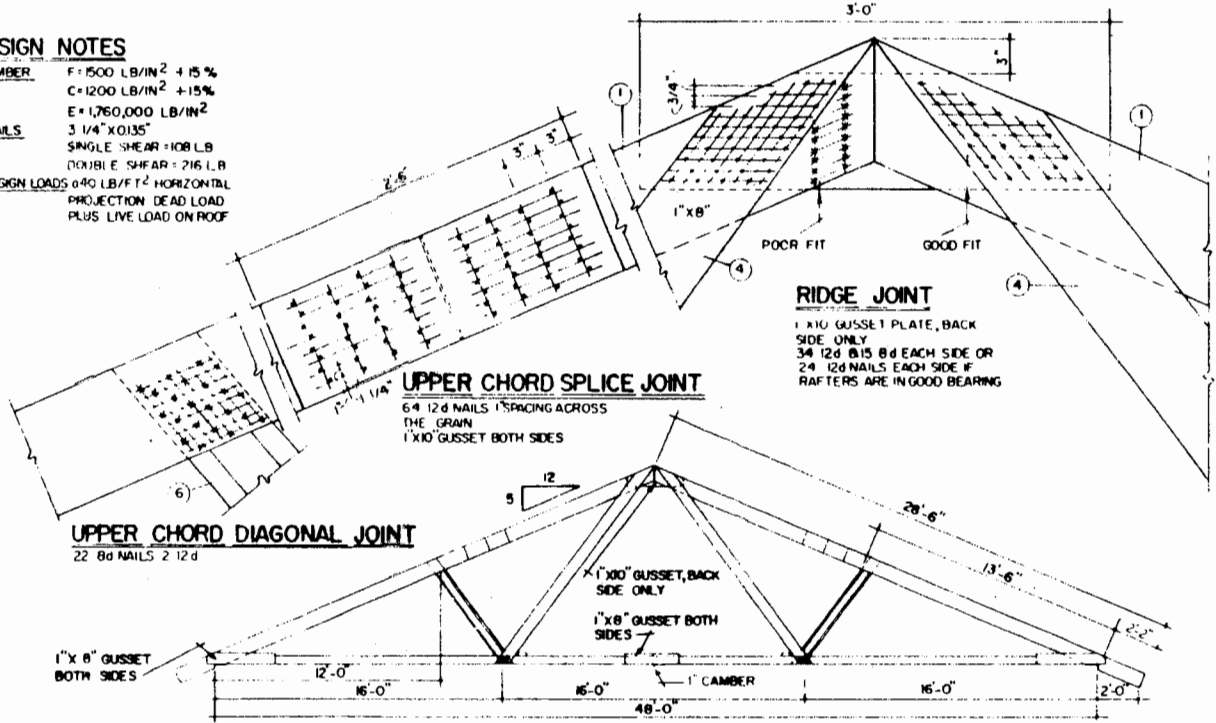
PARTIALLY OPEN FREE STALL HOUSING SYSTEM - 35 TO 154 COWS

MASS. '67 EX. 6023 SHEET 3 OF 4



DESIGN NOTES

- 1 LUMBER F = 1500 LB/IN² + 15%
C = 1200 LB/IN² + 15%
E = 1,760,000 LB/IN²
3 1/4" x 10 1/2"
- 2 NAILS SINGLE SHEAR = 108 LB
DOUBLE SHEAR = 216 LB
- 3 DESIGN LOADS 0.40 LB/FT² HORIZONTAL
PROJECTION DEAD LOAD
PLUS LIVE LOAD ON ROOF



NOTES & SPECIFICATIONS

- 1 LUMBER CONSTRUCTION GRADE DOUGLAS FIR OR EQUIVALENT.
- 2 TRUSSES SPACED 4'-0" ON CENTERS.
- 3 CAMBER 1" AT CENTER SPLICE.
- 4 NAILS USE HARDENED, HELICALLY THREADED NAILS.
- 5 DRIVE ALL NAILS FROM THE FRONT EXCEPT THOSE SHOWN AS W.
- 6 MAKE AND USE A NAILING TEMPLATE FOR LOCATING ALL NAILS.
- 7 MINIMUM END GRAIN NAIL SPACING, ALL MEMBERS 2 1/2"-3."
- 8 MINIMUM EDGE GRAIN NAIL SPACING, ALL MEMBERS 3/4"-1."

JOINT DETAILS: SCALE 1 1/2" = 1'-0"
MEMBER DETAILS: NOT TO SCALE



Disclaimer

This site makes available conceptual plans that can be helpful in developing building layouts and selecting equipment for various agricultural applications. These plans do not necessarily represent the most current technology or construction codes. They are not construction plans and do not replace the need for competent design assistance in developing safe, legal and well-functioning agricultural building system. The LSU Agriculture Center, the Mid-West Plan Service, the United States Department of Agriculture and none of the cooperating land-grant universities warranty these plans.