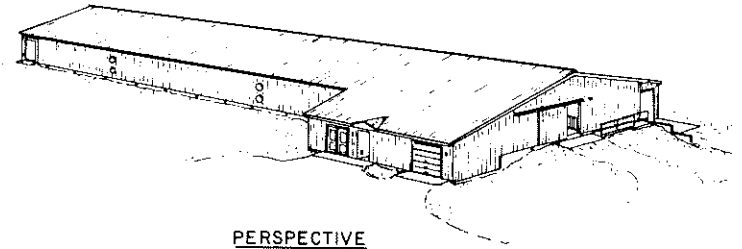


OPTIONS AND CROSS SECTION



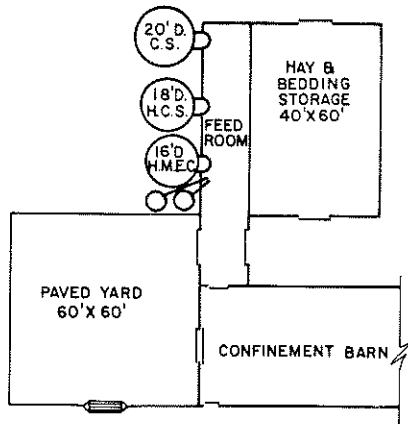
**NOTES:**

1. DETERMINE IF WATER SUPPLY IS PURE AND SUFFICIENT.
2. CHECK WITH ELECTRIC UTILITY ABOUT EASEMENTS & SERVICE.
3. CHECK WITH LOCAL GOVERNMENTS ABOUT ZONING & BUILDING RESTRICTIONS OR REQUIRED PERMITS.
4. SUBMIT PLANS TO YOUR MILK INSPECTOR FOR APPROVAL AND MAKE ARRANGEMENTS TO SHIP MILK.
5. CHECK DIMENSIONS OF MANUFACTURED EQUIPMENT TO BE INSTALLED BEFORE STARTING CONSTRUCTION.
6. ALL LUMBER IN CONTACT WITH MANURE OR SOIL SHOULD BE PRESSURE PRESERVATIVE TREATED (P.P.T.).
7. MILKLINE MUST BE SUPPORTED AT A UNIFORM SLOPE FOR DRAINAGE.
8. MILKROOM MUST BE HIGH ENOUGH FOR BULK TANK CALIBRATION AND MILK MEASUREMENT (WITH DIP STICK).
9. FLUORESCENT LIGHTS SHOULD BE MOISTURE RESISTANT, INDUSTRIAL GRADE FIXTURES.
10. APPROVED BY NORTHEAST DAIRY PRACTICES COUNCIL MAR. 1986.

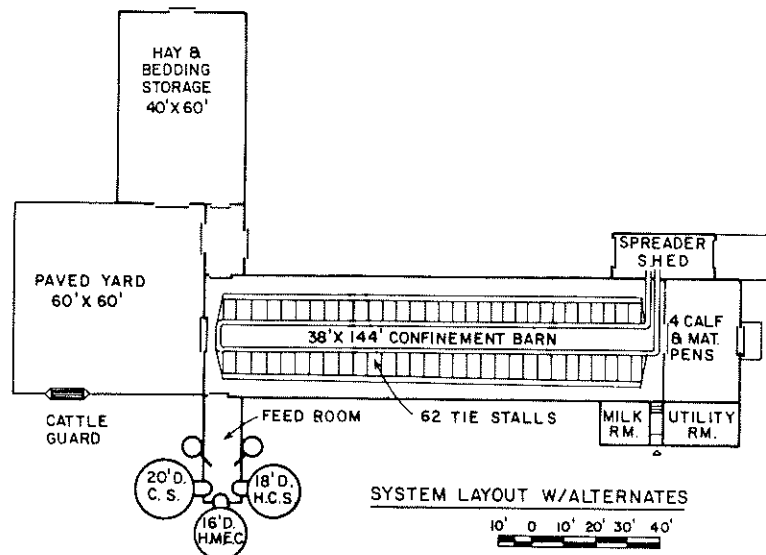


PERSPECTIVE

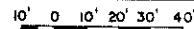
ANIMAL SIZE			TIE STALLS	
COW	GIRTH	WEIGHT	WIDTH	LENGTH
SMALL	71"	1000 LBS.	4'-0"	5'-0"
MEDIUM	78"	1300 LBS.	4'-3"	5'-6"
LARGE	86"	1600 LBS.	4'-6"	6'-0"



ALTERNATE FEED STORAGE

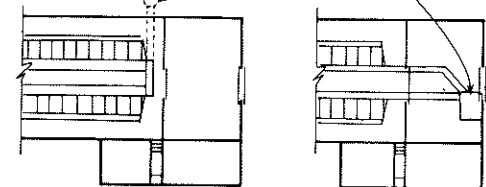


SYSTEM LAYOUT W/ALTERNATES



GRAVITY FLOW GUTTERS, CROSS CHANNEL 24" DIA. PIPE TO STORAGE OR LOADING

GUTTER CLEANER & RAM PUMP TO STORAGE OR LOADING



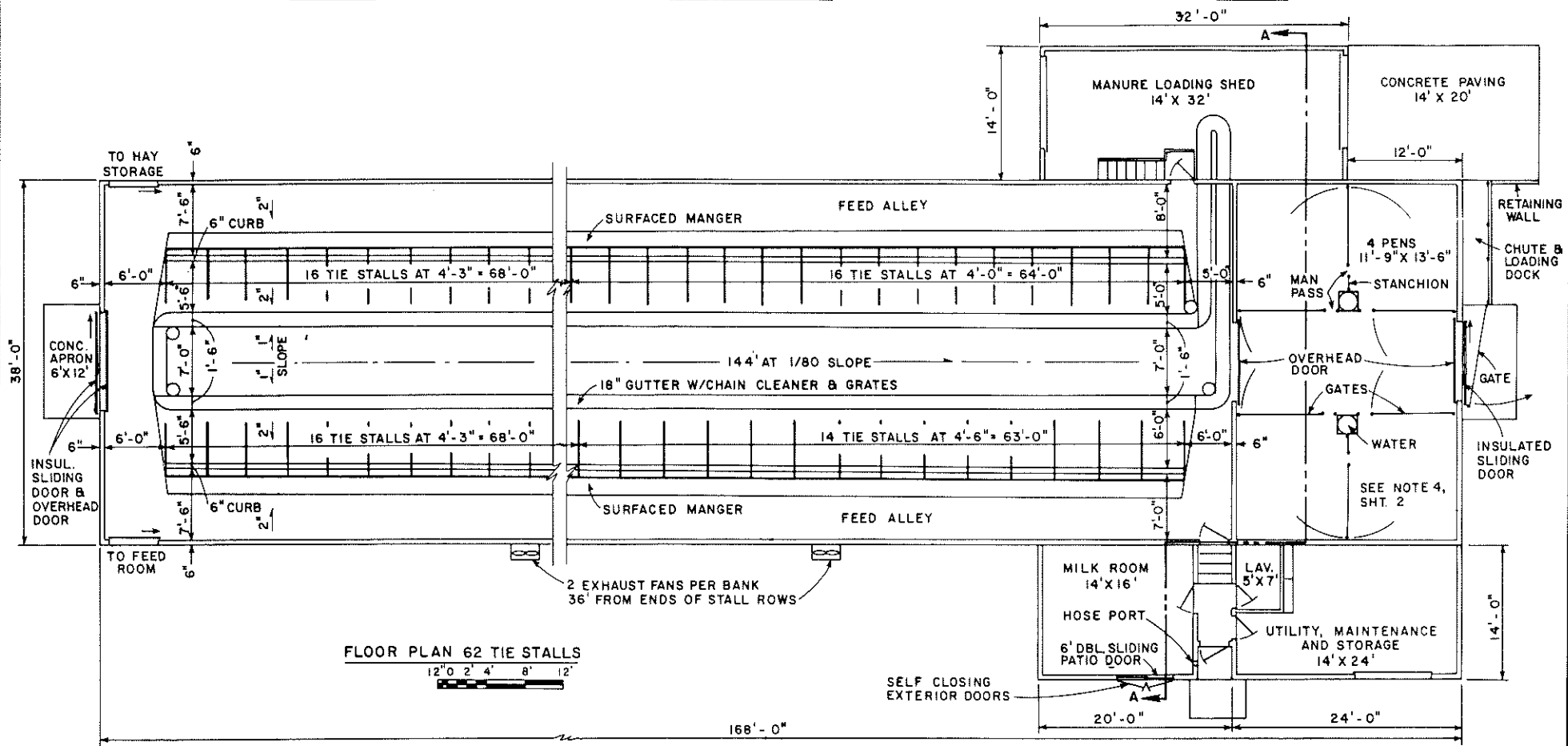
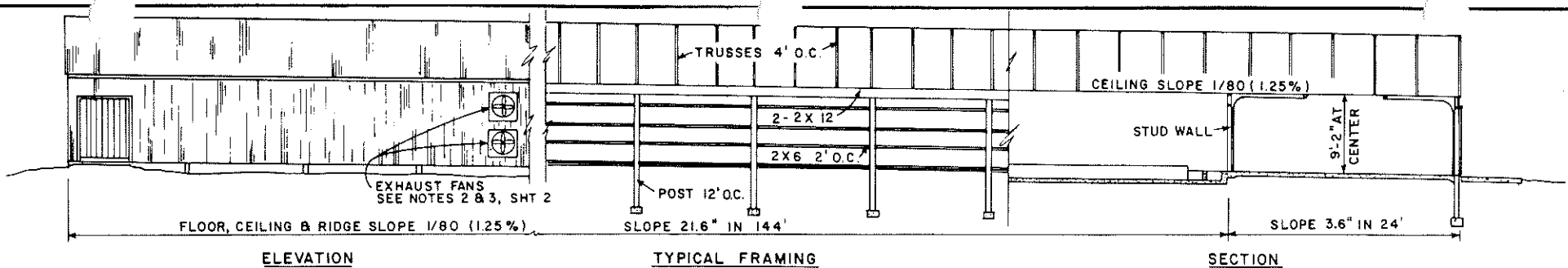
ALTERNATE MANURE HANDLING OPTIONS

COOPERATIVE EXTENSION SERVICE  
AGRICULTURE AND HOME ECONOMICS

AND  
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

SINGLE STORY SLOPING  
TIE STALL DAIRY BARN

NY '86 6378 SHEET 1 OF 4



**VENTILATION SCHEDULE**

INSIDE (°F)	RATE PER COW	(CFM) TOTAL	AIR EXCHANGE TIME (MIN.)	INLET <sup>1</sup> WIDTH (IN.)
BELOW 35	INFILTRATION ONLY			
35	30	1900	24	0.16
45	60	3700	12	0.32
50	120	7500	6	0.64
60	240	14900	3	1.3
75	300	18600	2.4	1.6
ABOVE 75	ADD CIRCULATION FANS			

**NOTES:**

1. OPENING BASED UPON 700'/MIN. AIR VELOCITY AND 200' SLOT INLET.
2. LOW LEVEL EXHAUST FAN COMPLETE WITH GUARDS, INSIDE LOUVERS, OUTSIDE HOOD & MULTI-SPEED CONTROL FOR 1000 CFM TO 4000 CFM AT 0.10" SP (1 EACH BANK)
3. HI-LEVEL EXHAUST FAN ADDS 4000 CFM OR MORE FOR WARM SEASON VENTILATION TURN OFF WITH FUSED SWITCH & USE INSULATED COVER IN COLD WEATHER.
4. FOR ANIMALS IN PENS USE EXHAUST FAN TO CHANGE AIR EVERY 10 TO 20 MIN. (400 TO 800 CFM) OR IN COLD CLIMATES AN AIR-TO-AIR HEAT EXCHANGER 150 TO 600 CFM.

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SINGLE STORY SLOPING  
**TIE STALL DAIRY BARN**

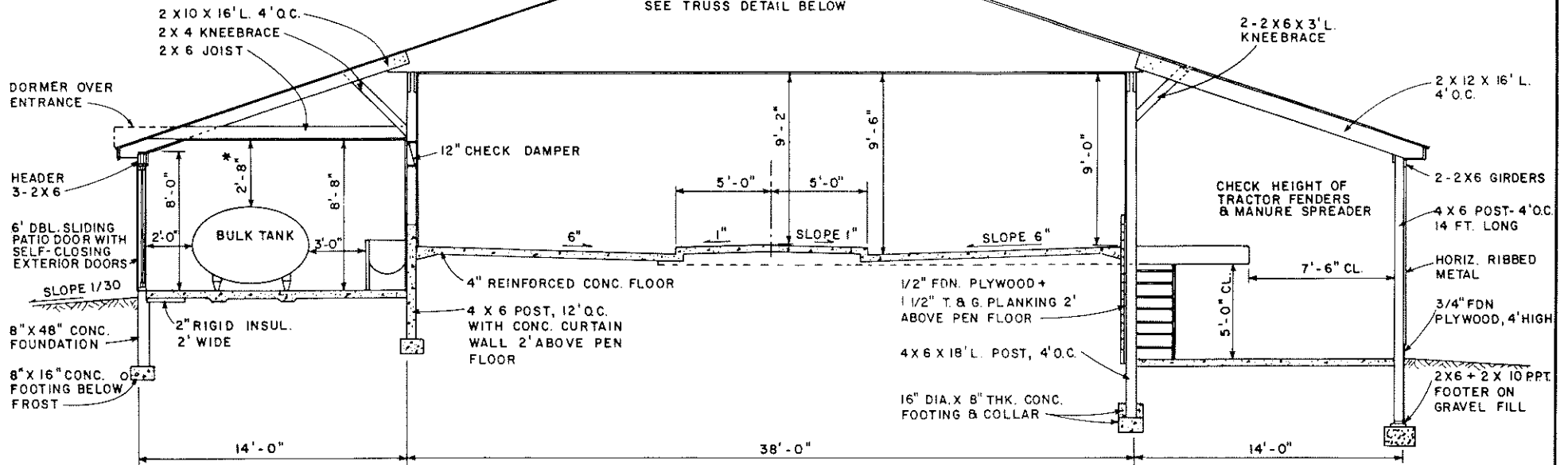
NY '86	6378	SHEET 2 OF 4
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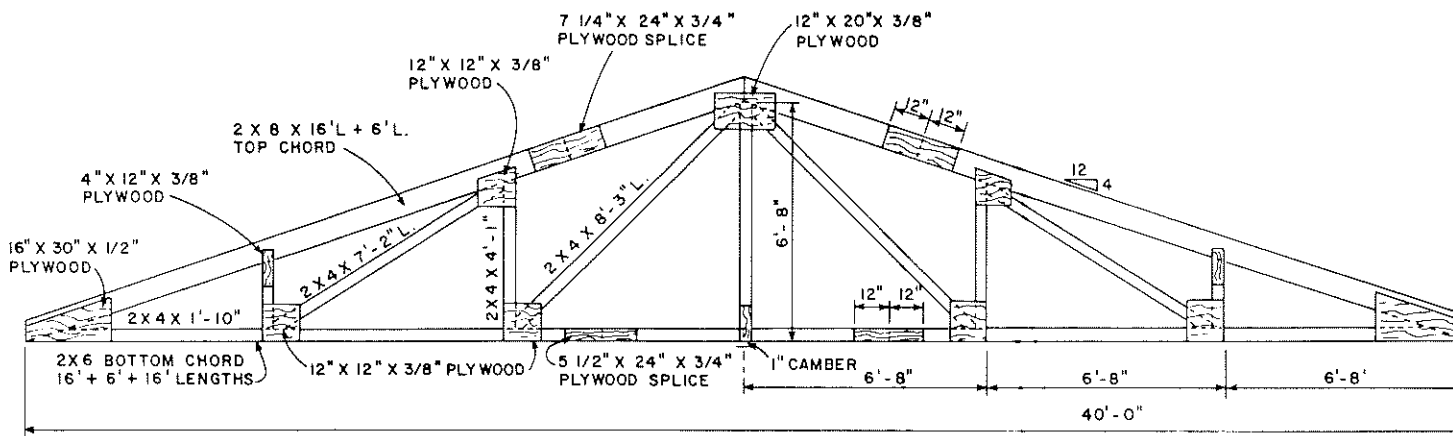
NOTE: CHECK SIZE OF BULK TANK AND CLEARANCE REQUIREMENTS

\* N.Y. REQUIRES 36" ABOVE TANK

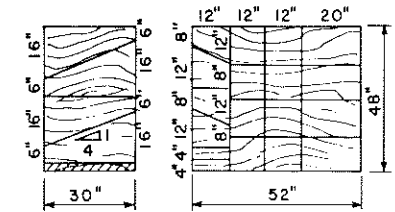
SEE TRUSS DETAIL BELOW



SECTION A-A



TRUSS DETAIL - SPACED 4'-0"



PLYWOOD GUSSET CUTTING DIAGRAM

- NOTES:
1. MANUFACTURED TRUSS MAY REPLACE TRUSS BUILT ON SITE.
  2. TRUSS DESIGN ADAPTED FROM MWPS-9 PG. 44-45.
  3. DESIGN ROOF LOADS & LUMBER STRESSES:  
 FOR 37 PSF USE 1600f LUMBER  
 FOR 29 PSF USE 1400f LUMBER  
 FOR 21 PSF USE 1100f LUMBER  
 FOR HEAVIER ROOF LOADS, DECREASE THE SPACING OF TRUSSES PROPORTIONALLY, EG. 42 PSF/21 PSF = 2, USE 2' O.C. SPACING.
  4. SELECT CLEAN SMOOTH LUMBER NOT CUPPED OR TWISTED. KILN DRIED TO .15% MOISTURE CONTENT.

5. GLUE-NAIL EXTERIOR GRADE STRUCTURAL C-C PLYWOOD. GUSSETS ON BOTH SIDES OF JOINTS & SPLICES.
6. USE RESORCINOL RESIN GLUE FOLLOWING MFG'S DIRECTIONS.
7. SPACE ROWS OF 6d NAILS 2" APART ACROSS GRAIN & 4" APART WITH GRAIN. NAIL AT LEAST 3/4" FROM EDGE.
8. LAP CHORD SPLICES AT LEAST 12" ON EACH MEMBER.
9. ASSEMBLE TRUSS IN JIG. APPLY GUSSETS ON ONE SIDE, INVERT & APPLY GUSSETS ON OTHER SIDE. STORE TRUSS FLAT TO CURE AT LEAST 24 HOURS.

COOPERATIVE EXTENSION SERVICE  
 AGRICULTURE AND HOME ECONOMICS

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SINGLE STORY SLOPING  
 TIE STALL DAIRY BARN

NY 86	6378	SHEET 4 OF 4
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