

**SPECIFICATIONS**

Unless otherwise specified, all cast-in-place concrete is to be at least 3000 psi @ 28 days, 6% air entrained.

All reinforcing steel to be at least 40,000 psi deformed bars; provide 2" concrete cover over reinforcing steel.

All exposed steel to be galvanized or painted to resist corrosion from moisture and manure gases.

All framing lumber is No. 2 (or better), S-P-F species group, unless otherwise specified.

All wood indicated 'pressure-treated' is CCA pressure-treated to a net retention of 0.4 lb/ft<sup>3</sup> (ground contact specification, CSA-080 Wood Preservation).

All nails exposed to treated wood, humid atmosphere or weather to be hot-dip galvanized.

This plan is designed to meet the requirements of the Canadian Farm Building Code.

Notes thus marked indicate where this plan gives structural choices to be selected to meet local climatic loads (wind, snow), soil bearing capacity and other local conditions. The plan user must ensure that these requirements are met. Consult an engineer if you are not familiar with the details required.

**ONE SET OF DRAWINGS AND LEAFLETS SHOULD INCLUDE:**

CPS no.	sheet no.	Title
4151	-1-	Open-end pole sheep barn drive-thru feeding
4151	-2-	Floor plan and cross-section
4151	-3-	Wall section
4151	-4-	Construction details
	-5-	truss design and spacing to suit local snow + dead load

**AND LEAFLETS**

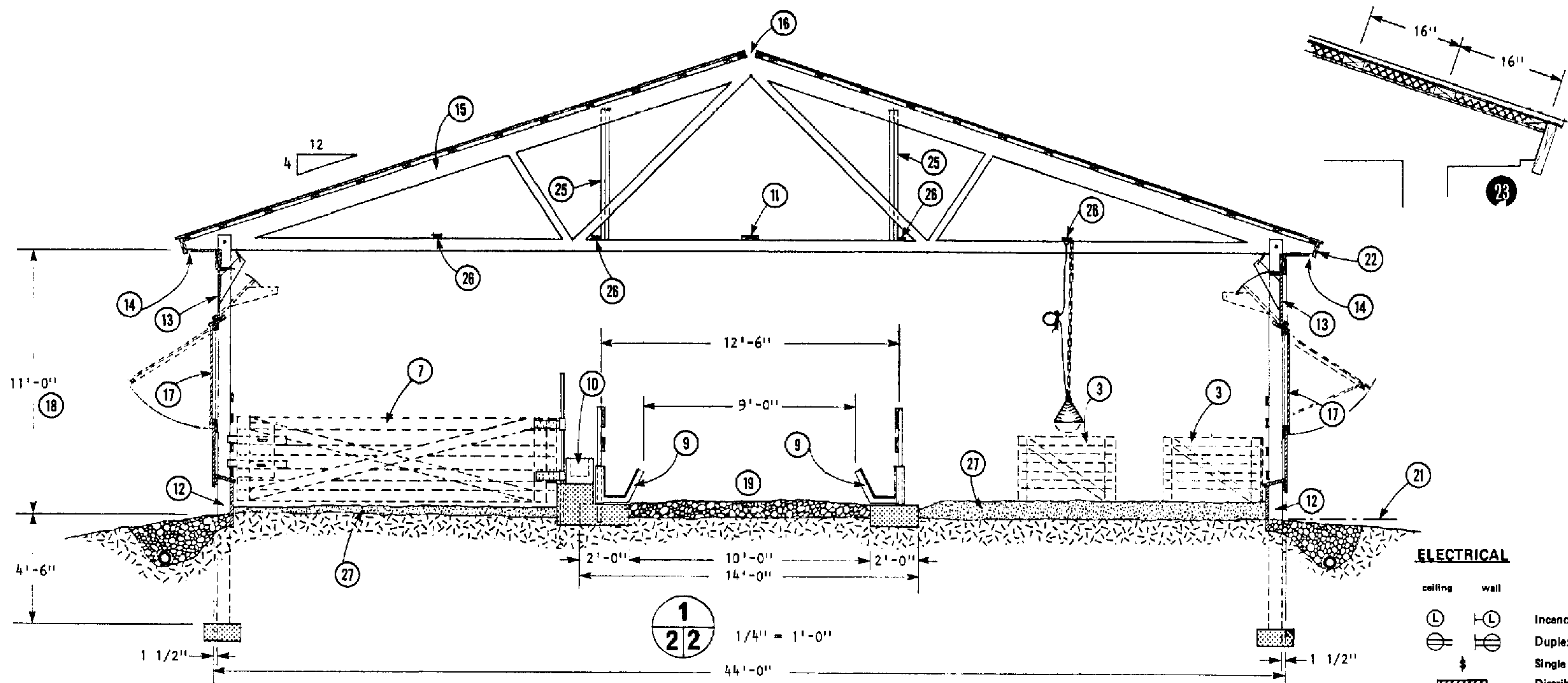
4151	Open-end pole sheep barn, drive-thru feeding
4831	Portable claiming pen
9102	Truss erecting and bracing

	REVISED & RE-ISSUED	H.A.J.	87-09	JET
SYM	REVISIONS	CHECKED	DATE	APPROVED

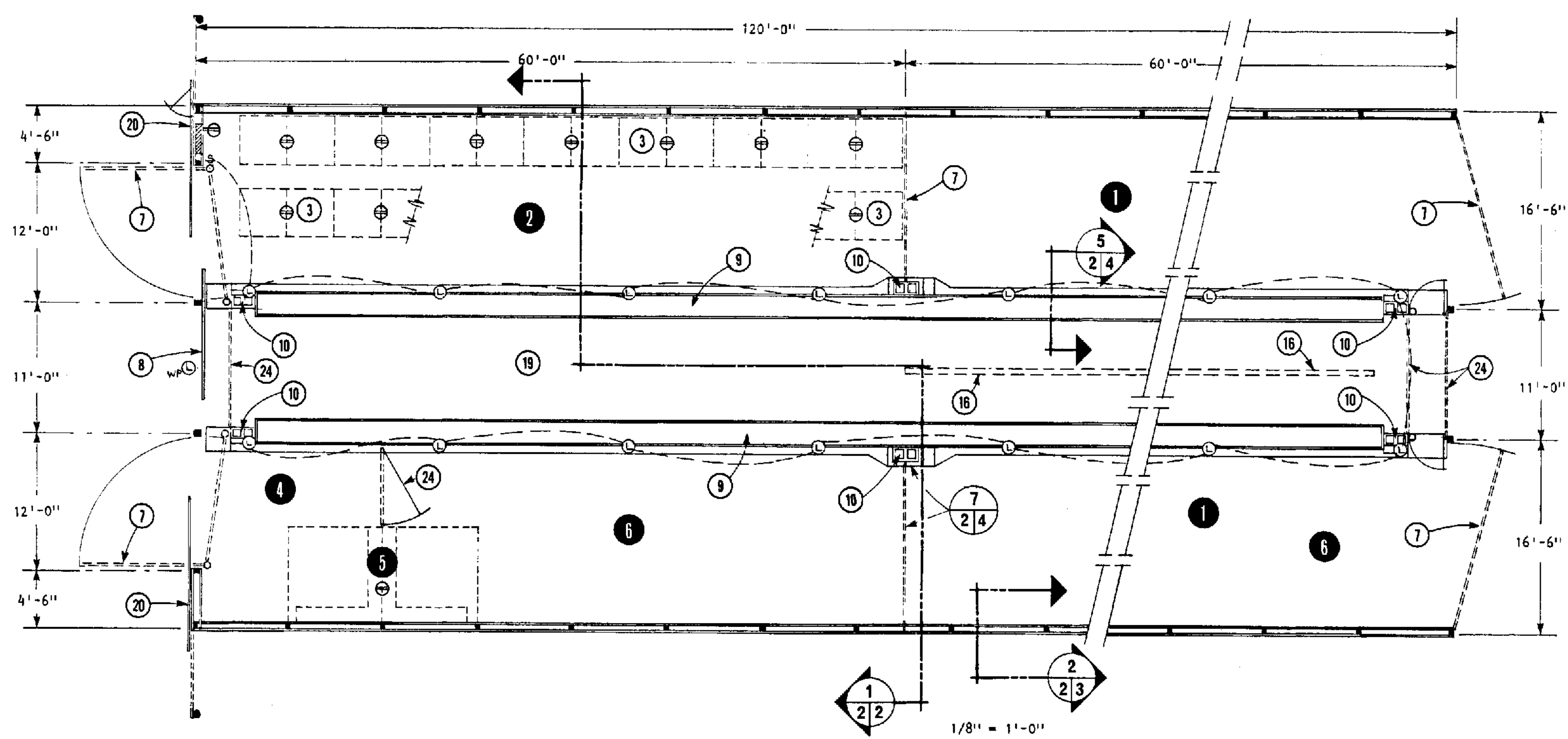


OPEN-END POLE SHEEP BARN  
DRIVE-THRU FEEDING

DESIGNED J.E.T.	DATE JAN/76	PLAN <b>4151</b>
DRAWN Leo BLAIS	REVISED	
TRACED	DETAIL NUMBER: A	SHEET 1 OF 4
CHECKED H.A.J.	ORIGINATES ON SHEET: B DRAWN ON SHEET: C	

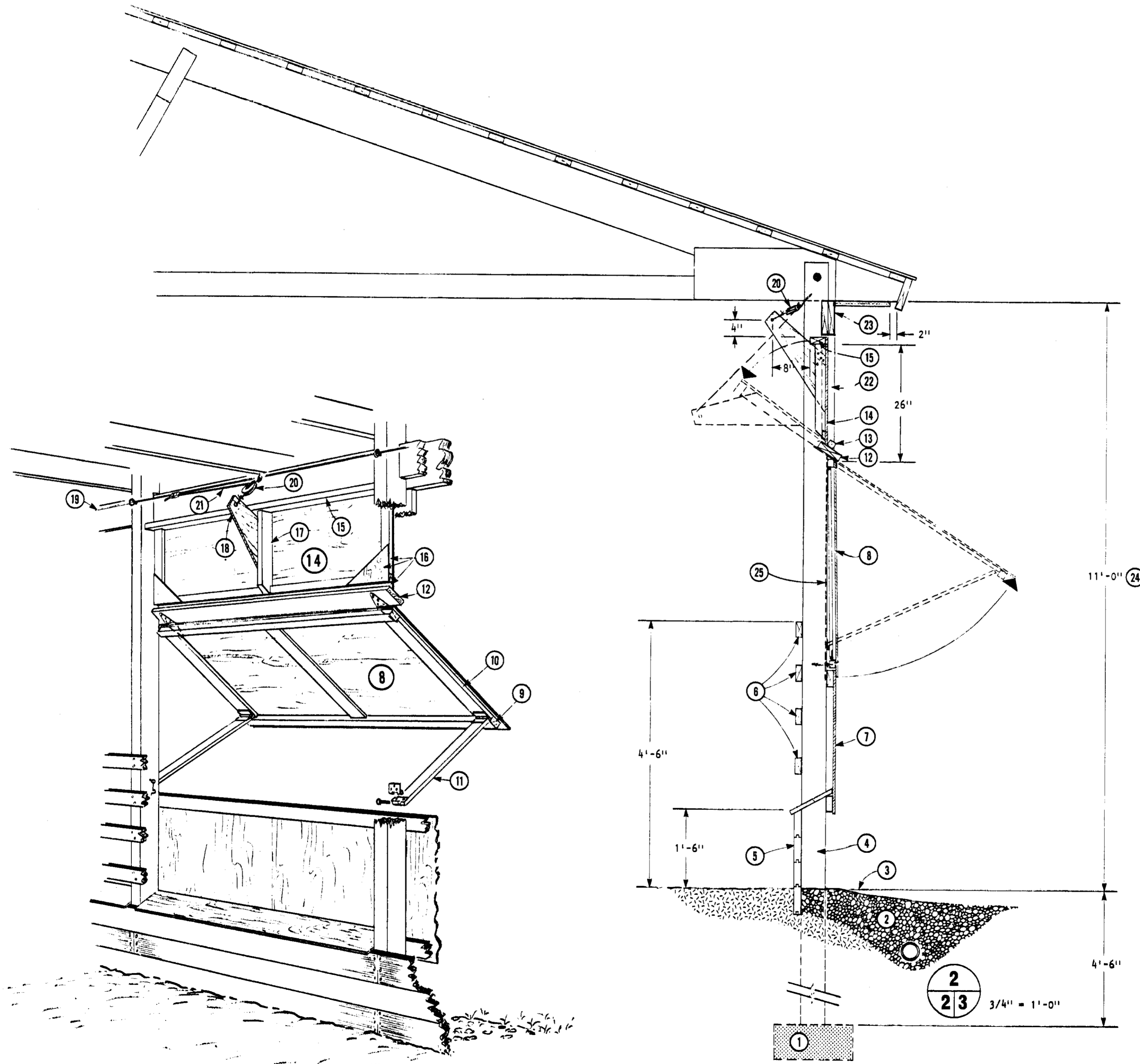


- 1 pregnant ewes go to area ② just before lambing
- 2 lambing area, ewes with newborn lambs go to claiming pens ③
- 3 claiming pens 4' x 4' (see leaflet 4831); provide additional protection for winter lambing by heat lamp suspended over hole in plywood cover panel over each pen
- 4 ewes and nursing lambs to hardening pen
- 5 lambs to creep with feeder
- 6 ewes and lambs to nursing pen
- 7 gate adjusts vertically to rest on manure pack, see sheet 4
- 8 11' x 10' slide door, track inside poles
- 9 feed bunk adjusts vertically to suit height of manure pack, see sheet 4
- 10 heated waterer on concrete base with drain, see ② sheet 4
- 11 2 x 8 walk plank continuous
- 12 pole frame walls, 16' poles @ 8'-0" o.c., see ① sheet 4
- 13 tilt-in vent panels; plywood, aspenite or translucent FRP, winch and cable control, see sheet 3
- 14 2" continuous vent slot
- 15 trusses @ 4" o.c., 2 x 4 roof purlins, 9/16" fiberboard drip stop, metal roofing (see leaflet 9301 for purlin spacing)
- 16 3" open ridge slot over ①, trusses soaked with wood preservative where exposed to weather, slot stops 8' from end of roof
- 17 continuous doors for summer ventilation, see sheet 3
- 18 this dimension may be reduced to 9'-0" if feeder will clear 8'-6"
- 19 drive-thru feed passage surface, coarse gravel
- 20 12' x 10'-6" slide doors, track to poles beyond building, man door at electrical service entrance
- 21 datum line
- 22 2 x 8 face board and 3/4" soffit
- 23 optional roof construction: 5/16" sheathing plywood; polyethylene vapour barrier; 2 x 4 purlins; 1 1/2" insulation; metal roofing
- 24 portable gates
- 25 2 x 6 double cross wind bracing between end pairs of trusses, both ends of building
- 26 2 x 4 truss stiffener, continuous
- 27 bedded manure pack



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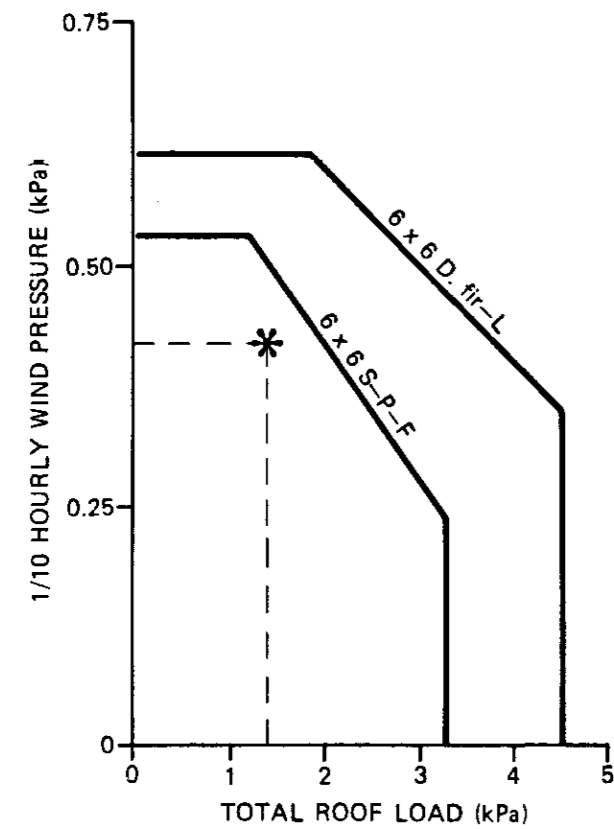
REVISED & RE-ISSUED		H.A.J.	87-08	JET
SYM	REVISIONS	CHECKED	DATE	APPROVED
		FLOOR PLAN AND CROSS SECTION		
		DESIGNED J.E.T.	DATE JAN/76	PLAN 4151
DRAWN	REVIS	SHEET 2 OF 4		
TRACED				
CHECKED H.A.J.				



- 1 8" deep x 18" diam. conc. footing based on 38 p.s.f. total roof load, 4000 p.s.f. soil
- 2 coarse gravel splash pad, 4" tile or perforated tubing to outlet, continuous
- 3 datum line
- 4 sawn poles, see pole chart sheet 4
- 5 2 x 6 x 16' pressure-treated T & G planking, end joints staggered 8' o.c. at poles
- 6 4 - 2 x 4 guard planks, also acts as fencing when manure pack is up & tilt-out panel (8) is open
- 7 3/8" x 2'-8" plywood (face grain vertical) or 7/16" aspenite on 2 - 2 x 4 girts, continuous
- 8 tilt-out panels, 3/8" x 4' x 8' plywood, continuous, for summer ventilation
- 9 2 x 2 horizontal stiffeners, inside top & bottom
- 10 3 - 1 x 4 vertical stiffeners
- 11 2 - 1 x 4 struts per panel (8); bottom end hinged, held open with one part of hinge screwed to strut & other part to pole, remove hinge pin and fold strut up to close; secure with hook and eye
- 12 2 x 6 x 16' sill notched for poles, continuous
- 13 2 x 2 x 4" long stop for (14), centered between poles
- 14 tilt-in panel, 3/8" x 7'-8" x 2' plywood, continuous; for summer ventilation
- 15 2 x 4 x 7'-8" horizontal stiffener at top
- 16 1 x 2 framing, gussets at bottom corners
- 17 1 x 3 centre stiffener
- 18 3/8" plywood lever, 1" hole at top for (21) fastened to (15) & (17) at a 45° angle to panel
- 19 3/16" plastic covered marine steering cable, runs from winch (at control) through screw eyes to pulley and counterweight for tension, at remote end
- 20 2" nylon marine steering pulley hooked to screw eye at each intermediate truss
- 21 branch cable from clamp on (19) through pulley (20) to lever (18)
- 22 scab at each pole, stops tilt-in panel (14) and supports outer plate (23), see (2) sheet 4 for nailing
- 23 double plate, see (2) sheet 4
- 24 may be 9'-0" if feed truck will clear; adjust wall panel (7) to suit
- 25 optional galvanized mesh predator fencing

	REVISED & RE-ISSUED	H.A.J.	87-09	JET
SYM	REVISIONS	CHECKED	DATE	APPROVED
		WALL SECTION		
		DESIGNED J.E.T.	DATE JAN/76	PLAN 4151
	DRAWN LEO BLAIS	REVISED		
	TRACED B. YANKOWSKY	DETAIL NUMBER	A	
	CHECKED H.A.J.	ORIGINATES ON SHEET	B	
		DRAWN ON SHEET	C	
				SHEET 3 OF 4

1



EXAMPLE

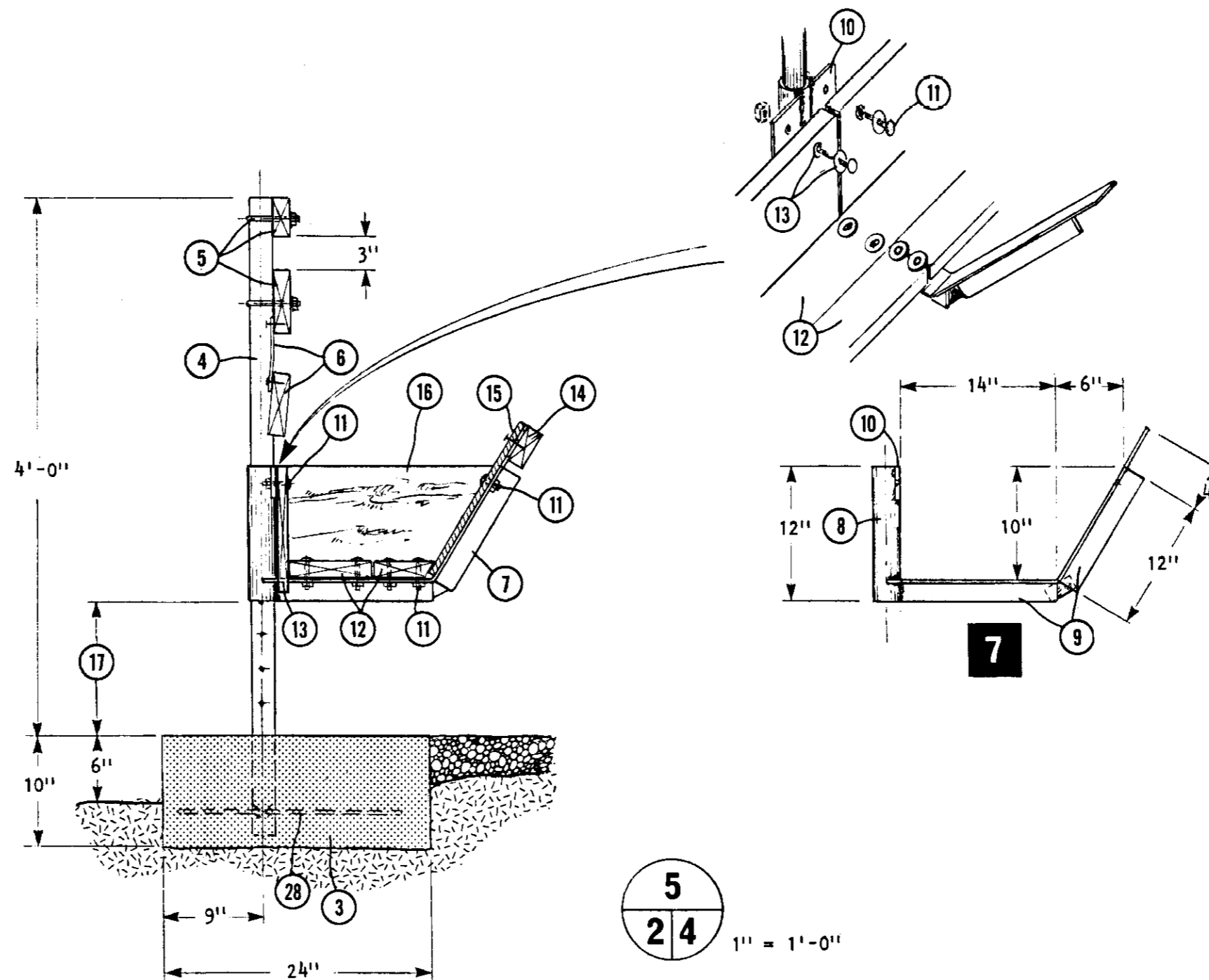
Determine pole size for Brighton, Ontario (ground snow load 2.0 kPa, 1/10 hourly wind pressure 0.42 kPa).

If the roof is fully exposed to wind, the total roof load is:

$$0.6 \times 2.0 \text{ (snow)} + 0.2 \text{ (dead)} = 1.4 \text{ kPa}$$

Enter the pole selection chart at 1.4 kPa total roof load and 0.42 kPa wind pressure (see \*)

6 x 6 S-P-F or D. fir-L poles would be adequate



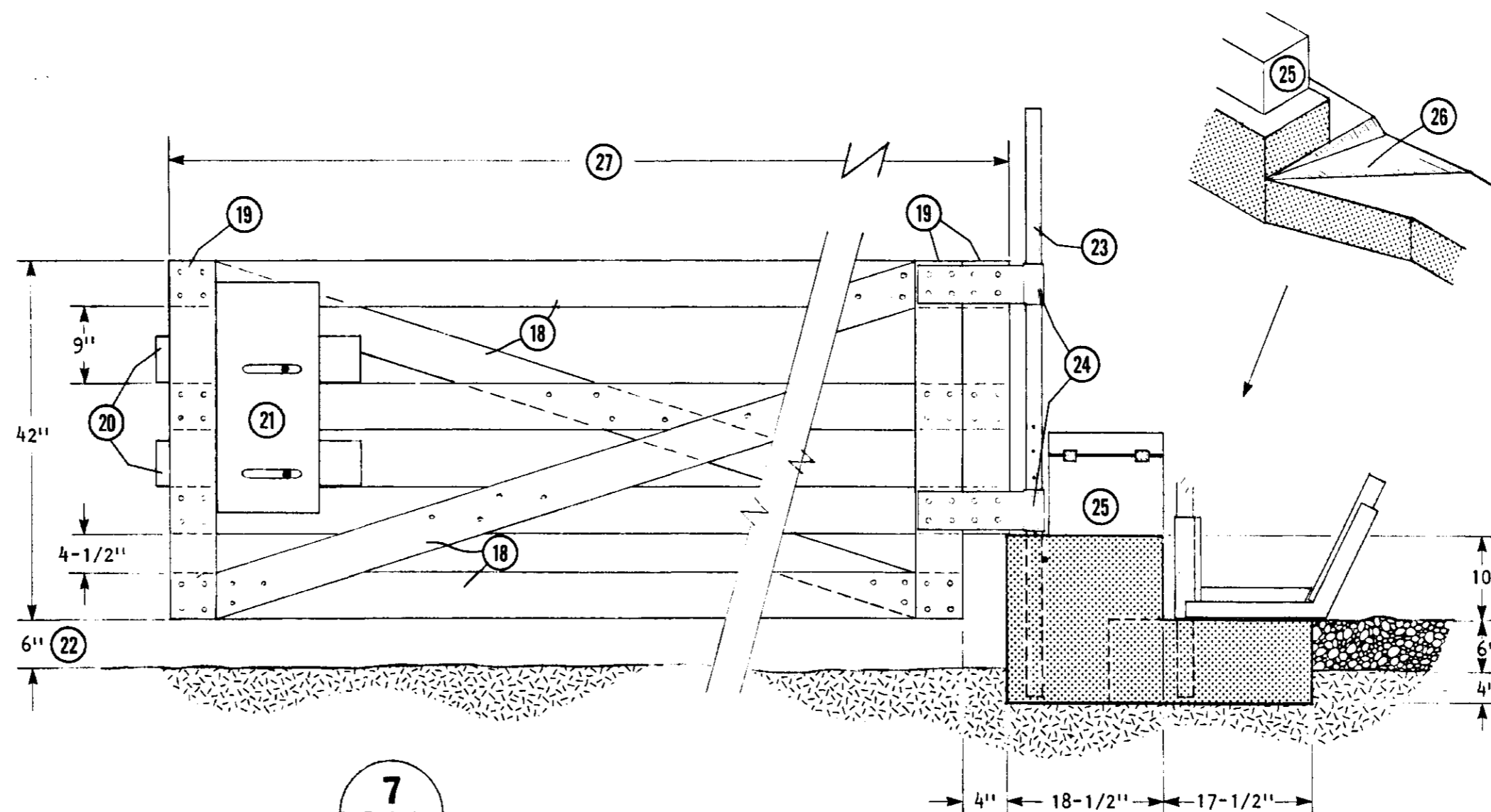
5  
24  
1" = 1'-0"

2

Plate beam safe uniform total roof load, kPa

Scab details

Plate beam No.2 S-P-F	Truss spacing, inches on centre			Scab size	# of 5" spiral nails
	48	32	24		
2 - 2 x 8	1.31	1.11	1.05	2 x 8	15
2 - 2 x 10	1.96	1.59	1.44	2 x 10	23
2 - 2 x 12	2.50	1.94	1.75	2 x 12	29
<b>No.2 D. Fir</b>					
2 - 2 x 8	1.11	--	--	2 x 6	9
2 - 2 x 10	1.66	1.40	1.33	2 x 6	13
2 - 2 x 12	2.24	1.89	1.80	2 x 8	18



7  
24  
3/4" = 1'-0"

- 1 sawn pole selection chart
- 2 2 - 2 x 10 x 16' plate beam (3 in. end spans); joints staggered 8' @ poles; No. 2 Spruce safe to 1.96 kPa total roof load; for truss spacings other than 48" o.c. and/or heavier roof loads, see table (2)
- 3 concrete feeder base
- 4 1 1/2" diam. x 4'-9" galv. pipe posts @ 8' o.c.
- 5 2 x 4 and 2 x 6 headrails; secure to posts with 5/16" U-bolts, slacken nuts to adjust height (see note (17))
- 6 lamb stop board, 2 x 6 x 3'-6" fastened to headrail (5) with 3/4" welded link chain or belting 8" from each end
- 7 metal sub-assembly for adjustable feeder
- 8 2" diam. galv. pipe collar
- 9 1/2" x 3" x 3" steel plate, welded to (8)
- 10 2 - 1/2" x 3" x 3" steel plate, welded to (8); one each side of (4)
- 11 5/16" stove bolts and washers
- 12 feeder bottom, 2 x 8 and 2 x 6 (bevelled) x 16' long, joints staggered @ 8' o.c. to allow for height adjustment
- 13 keeper, 1 x 12 x 16' notched around (9), drill oversize for (11), oversize washers
- 14 2 x 4 runner, nailed to (15)
- 15 1/2" plywood, 16" wide, drill oversize for (11), oversize washers
- 16 end board at ends of feed bunk
- 17 variable 0" to 12"; 4 holes @ 3" o.c. in (4), adjust feeder to suit height of manure pack
- 18 1 x 6 horizontals; 1 x 6 cross braces (one each side of gate)
- 19 1 x 6 uprights (both sides)
- 20 1 x 6 slide latch, dowel or bolt flush with plywood face
- 21 3/8" plywood both sides, cut slot for latch bolt (20)
- 22 gate rests on manure except when barn is clean
- 23 1 1/2" diam. x 5'-9" long pipe
- 24 2" diam. x 4 1/2" long galv. pipe welded to 1/8" x 4" steel strap both sides of gate, 5/16" bolts through gate
- 25 frost-proof sheep waterer with pan hinged for cleaning (see manufacturer)
- 26 slope to drain into alley when flushing waterer
- 27 variable, depending on location of gate, see floor plan, sht. 2
- 28 #4 x 18" rebar welded to (4)

REVISED & RE-ISSUED	H. A. J.	87-09	JET
SYM	REVISIONS	CHECKED	DATE APPROVED

**CANADA PLAN SERVICE**

CONSTRUCTION DETAILS

DESIGNED J.E.T.	DATE JAN/76	PLAN 4151
DRAWN BY YANKOWSKY	REVISED	
TRACED	DETAIL NUMBER	A
CHECKED H. A. J.	ORIGINATES ON SHEET	B
	DRAWN ON SHEET	C

SHEET 4 OF 4