

ONE SET OF DRAWINGS & LEAFLETS SHOULD INCLUDE

CPS no.	SHEET no.	TITLE
M-2502	1	Herringbone milking center (two return alleys)
M-2502	2	Floor plan
M-2502	3	Cross section
M-2502	4	Longitudinal section & details
M-2502	5	Electrical plan & wall section

- AND
- Q-2503 Milking parlor grounding method
 - M-2921 Single headrail tie stall
 - M-9102 Truss erection & bracing
 - M-9324 Stud frame walls

OPTIONAL Roof truss plan, to suit span and snow load

"This plan conforms to the requirements of the Canadian Farm Building Code. The user of this plan must ensure that the design criteria indicated herein will meet all local design conditions, building regulations and special requirements."

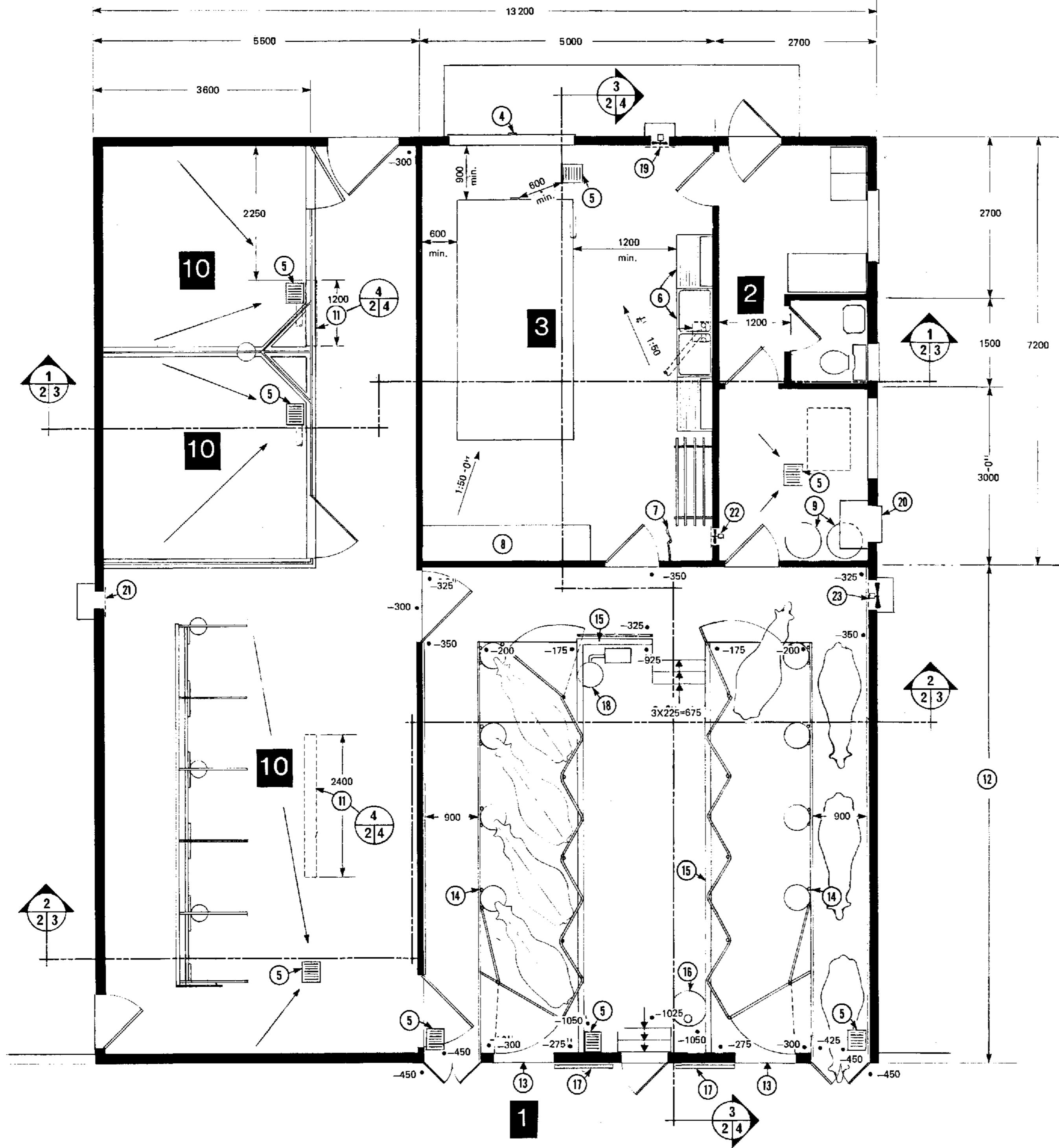
WARNING
 This plan may require structural and other changes to meet local site conditions, climatic loads, user requirements and applicable building regulations (such as the Canadian Farm Building Code). Before construction, the user of this plan is responsible to ensure that all required changes are made.

SYM	REVISIONS	CHECKED	DATE	APPROVED

CANADA
PLAN SERVICE

HERRINGBONE MILKING CENTRE
(TWO RETURN ALLEYS)

DESIGNED <i>JET</i>	DATE 84.01	PLAN
DRAWN D. BROWN	REVISED	
TRACED	DETAIL NUMBER A	M-2502
CHECKED <i>JAM</i>	ORIGINATES ON SHEET B DRAWN ON SHEET C	
SHEET 1 OF		



ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE SPECIFIED

- 1 floor plan; floor elevations such as -1025, show mm below datum line (top of foundation)
- 2 office with door to sidewalk, washroom & mechanical room (refrigeration, electrical, vacuum pump etc.)
- 3 milk room with bulk milk tank cooled from unit in mechanical room
- 4 hose port at least 150 mm above floor & grade; removable window above with insulated lower panel (for replacement of bulk milk tank)
- 5 floor drain with gas trap, see [4] sheet 4
- 6 double sink with drain board, cupboards above
- 7 hot & cold mixing faucet, 6 m hose and nozzle
- 8 auto-washing equipment for pipeline
- 9 2 x 270 L electric water heaters, one warm for cow wash, one hot for equipment wash
- 10 breed area with tie stalls (leaflet M-2821), 3600 mm x 3600 mm treatment pens
- 11 ling air inlet, for winter ventilation
- 12 approximately 8400 mm for double-4 or 12 000 mm for double-8 parlor (see supplier)
- 13 single step up to parlor
- 14 pipe posts, 38 x 184 mm rub planks
- 15 3" galvanized pipe curb, or see stall supplier
- 16 concrete pit with cover, automatic sump pump
- 17 if barn is warm, door is optional; if cold, use vacuum operated insulated sliding doors 1050 x 2000 mm
- 18 milk transfer equipment
- 19 intake fan with baffle, approximately 250 L/s capacity, manual switch
- 20 2-speed exhaust fan see [3] sheet 5
- 21 small 2-speed exhaust fan
- 22 fan blows warmed air to milk room in winter
- 23 optional summer exhaust fan 1650 L/s, manual switch, provide fresh air inlet ducted from outdoors to ceiling over operator pit

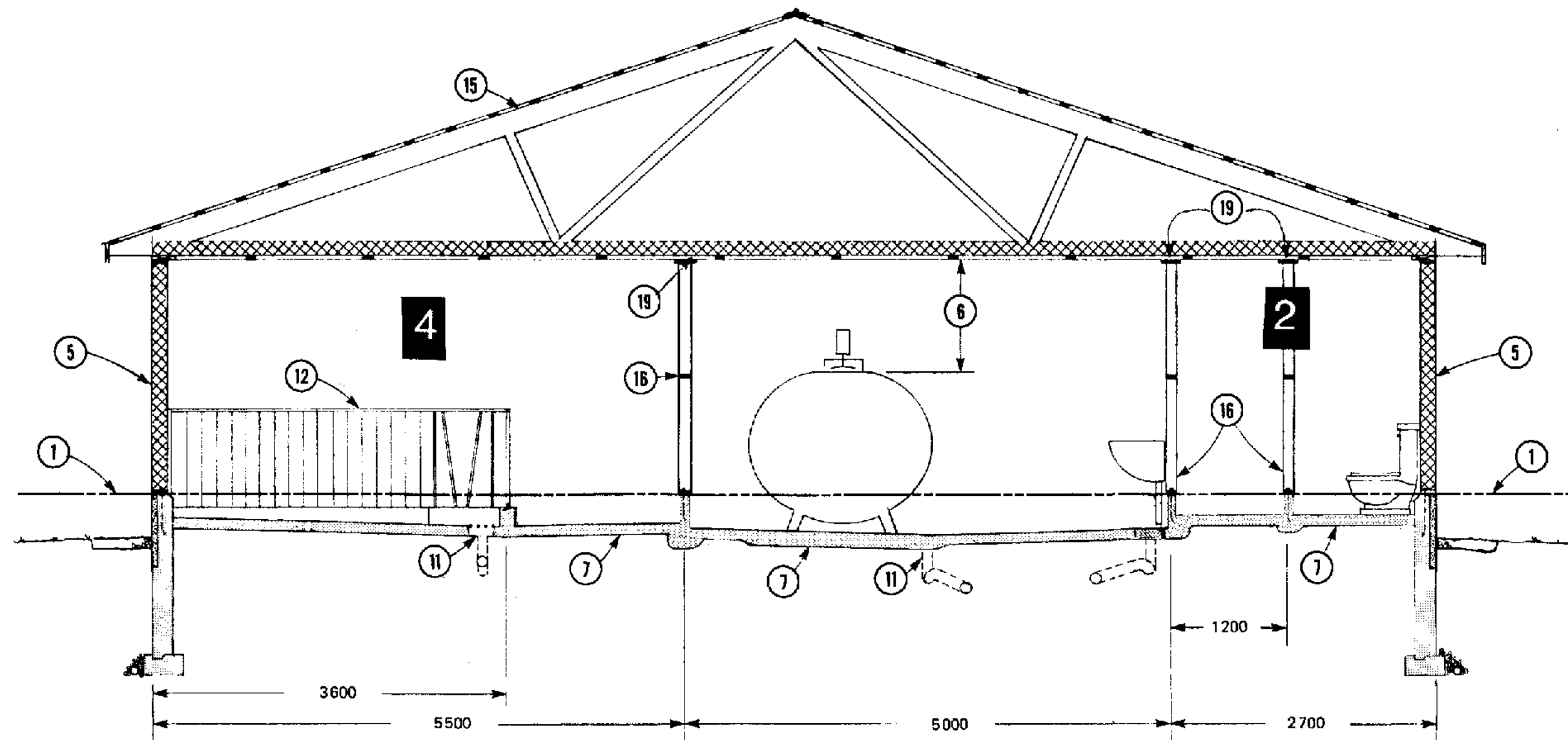
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PLAN SERVICE

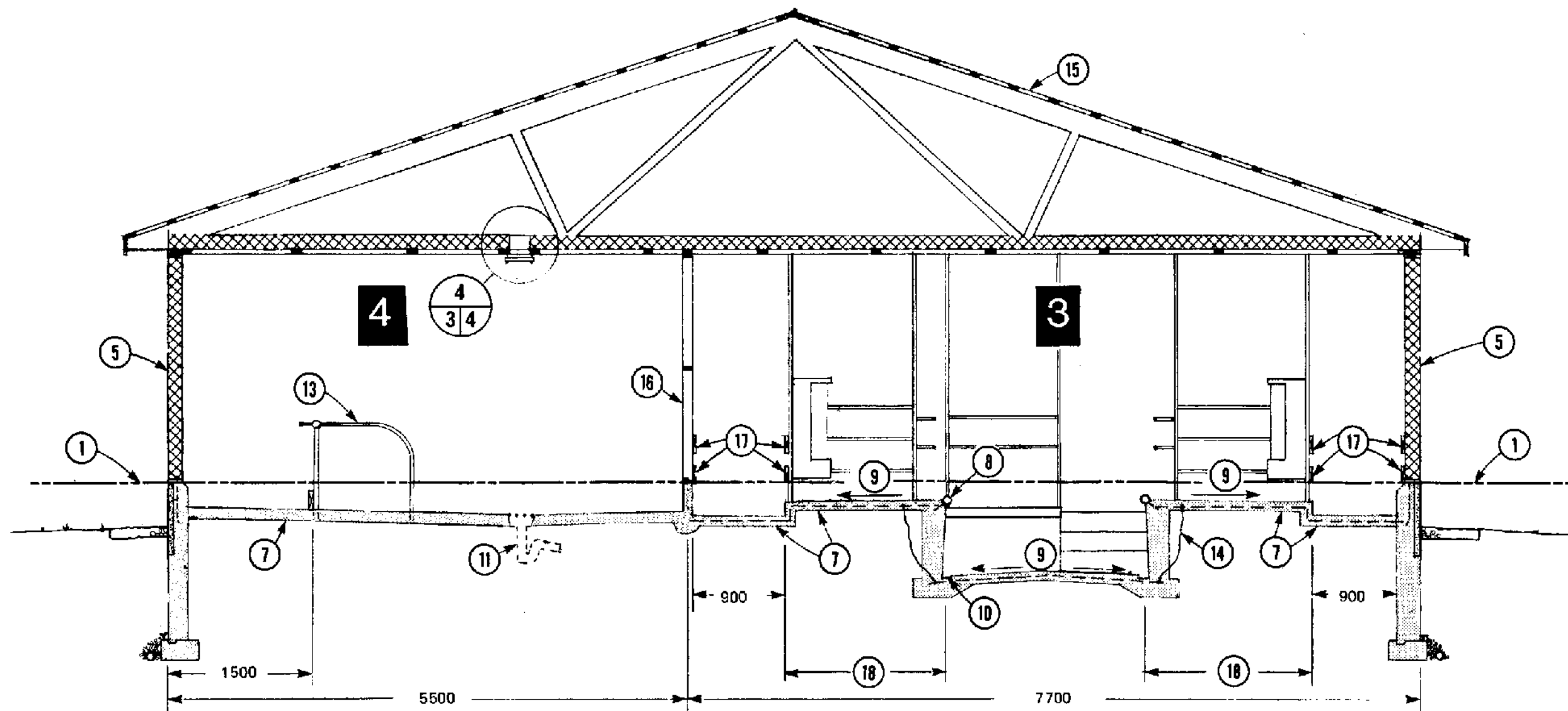
FLOOR PLAN

DESIGNED <i>JET</i>	DATE 84-01	PLAN
DRAWN BROWN/MORDEN	REVISED	M-2502
TRACED	DETAIL NUMBER <i>A</i>	SHEET 2 OF
CHECKED <i>JAM</i>	ORIGINATES ON SHEET <i>B</i> DRAWN ON SHEET <i>C</i>	

ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE SPECIFIED



1
2 3



2
2 3

- 1 datum line, top of concrete foundation; floor elevations such as .-300 show mm below datum line, dot shows location
- 2 | washroom & hallway to office
- 3 | milking parlor (see manufacturer)
- 4 | breed and treatment area
- 5 insulated wall and concrete foundation see plan M-9324, RSI=3.5 insulation in wall, 4.9 in ceiling, sill CCA pressure-treated & stud butts soaked in wood preservative
- 6 set milk room floor elevations to give at least 900 mm clear from top of bulk tank to ceiling (for removal of milk measuring rod)
- 7 compacted sand or gravel fill 150 mm, polyethylene vapor barrier, floor 100 mm of 30 MPa concrete, increase floor to 150 mm thick under bulk tank
- 8 75 mm galvanized pipe curb top set 50 mm above stall floor to floor with 12 mm rebar lugs welded @ 900 mm oc, or see supplier
- 9 floors sloped to drain; see floor plan sheet 2
- 10 75 x 38 mm gutter, optional
- 11 floor drain and gas trap, see [4] sheet 4; 100 mm sewer pipe sloped uniform to sump
- 12 treatment pen (see manufacturer)
- 13 1200 mm wide tie stalls, see M-2821(no gutter)
- 14 all stall hardware & floor reinforcing electrically bonded, (plan 0-2503)
- 15 trusses 13 200 mm span, @ 1200 mm oc
- 16 interior partitions 150 mm concrete block, or 89 mm stud frame as shown; if wood frame, sill CCA pressure-treated, stud butts soaked in wood preservative
- 17 38 x 184 mm rub planks @ 450 and 900 mm from floor, secure to stall posts with U-bolts recessed flush
- 18 dimensions vary, see stall equipment supplier
- 19 provide space over interior partitions as per camber indicated on truss plan

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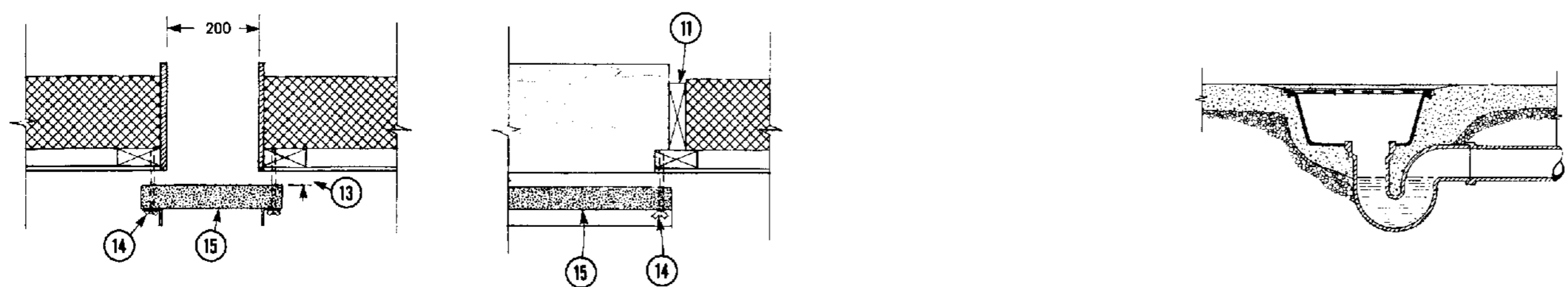
CANADA PLAN SERVICE

CROSS SECTIONS

DESIGNED <i>JET</i>	DATE 84-01	PLAN
DRAWN BROWN/MORDEN	REVISED,	M-2502
TRACED	DETAIL NUMBER	A B C
CHECKED <i>JAM</i>	ORIGINATES ON SHEET	SHEET 3 OF
	DRAWN ON SHEET	

ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE SPECIFIED

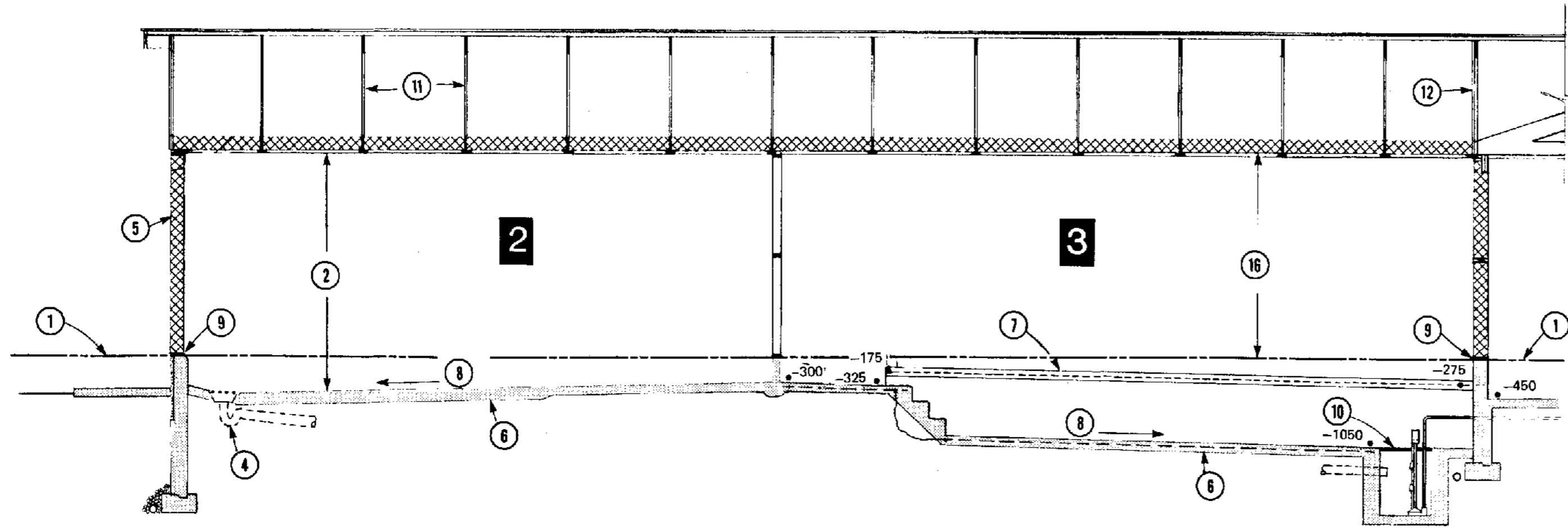
- 1 datum line, top of foundation; floor elevations such as .-300 show mm below datum line, dot shows location
- 2 milk room, height to give at least 900 mm clear from top of bulk tank to ceiling (for removal of milk measuring rod)
- 3 milking parlor
- 4 100 mm floor drain with 6 mm steel cover plate, 18 mm holes for drainage. Form sump in concrete with plastic dishpan, cut hole for P-trap. Use temporary 12 mm plywood cover to form rabbet in concrete
- 5 insulated wall and concrete foundation see plan M-9324, RSI-3.5 insulation in wall, 4.9 in ceiling, sill CCA pressure-treated & stud butts soaked in wood preservative
- 6 compacted sand or gravel fill 150 mm, polyethylene vapour barrier, floor 100 mm of 30 MPa concrete, 150 mm thick floor under bulk tank, for milking parlor grounding see plan Q-2503
- 7 75 mm galvanized pipe curb, top set 50 mm above stall floor, anchored to floor with 12 mm rebar lugs welded 900 mm oc
- 8 floors sloped to drain; see floor plan sheet 2
- 9 elastomer or butyl caulking
- 10 concrete sump pit with cover
- 11 trusses 13 200 mm span, @ 1200 mm oc
- 12 join to holding area, construction varies
- 13 adjust inlet slot 3 mm for cold winter weather, 9 mm for mild weather, closed for hot summer weather (open doors when cattle are housed)
- 14 6 mm plated carriage bolts, washers and wing nuts for inlet adjustments
- 15 50 x 300 mm extruded polystyrene baffle stiffened with 38 x 38 mm angle bent from galvanized sheet steel
- 16 2450 mm if ceiling is fastened to 38 mm ceiling strapping, 2410 mm if ceiling is fastened directly to trusses (see M-9324)



2,

4
3 4

4



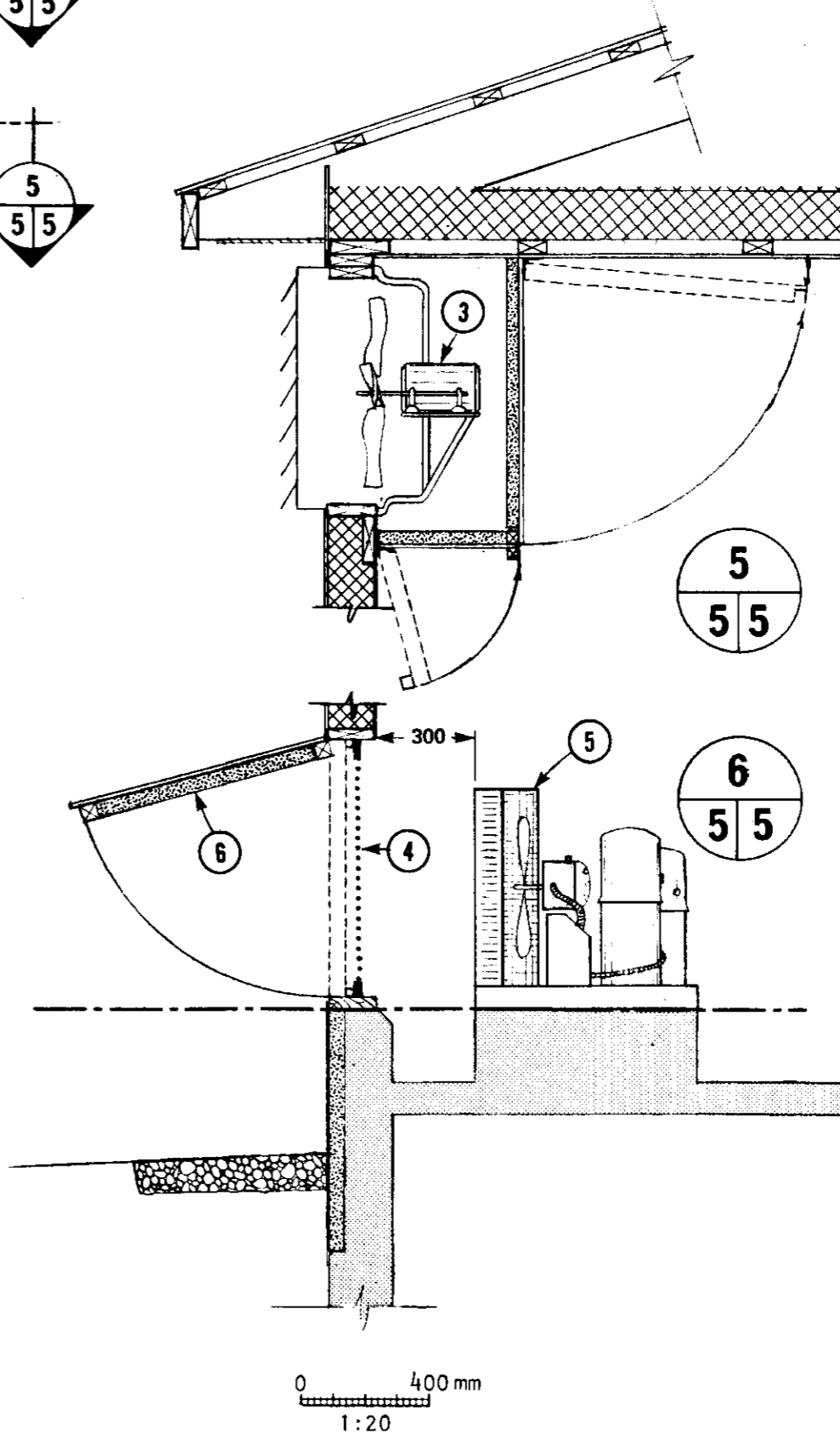
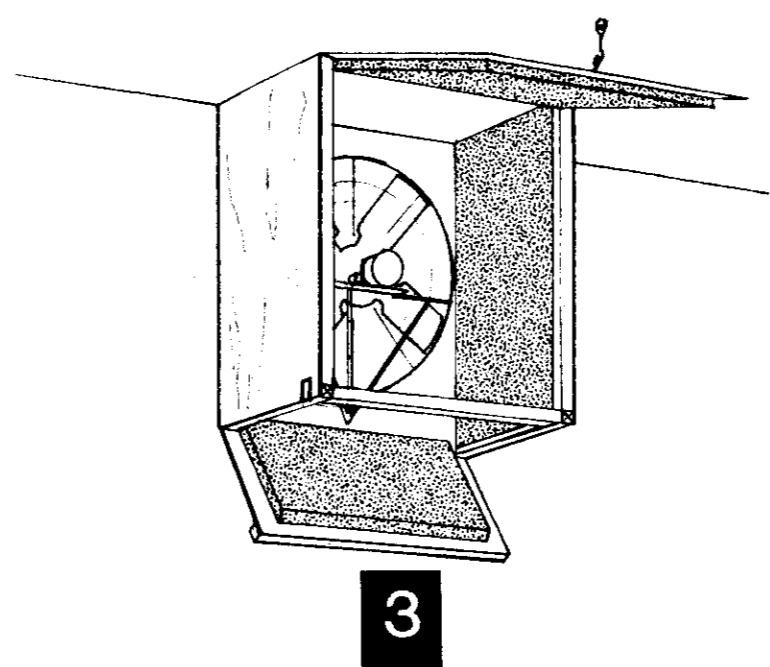
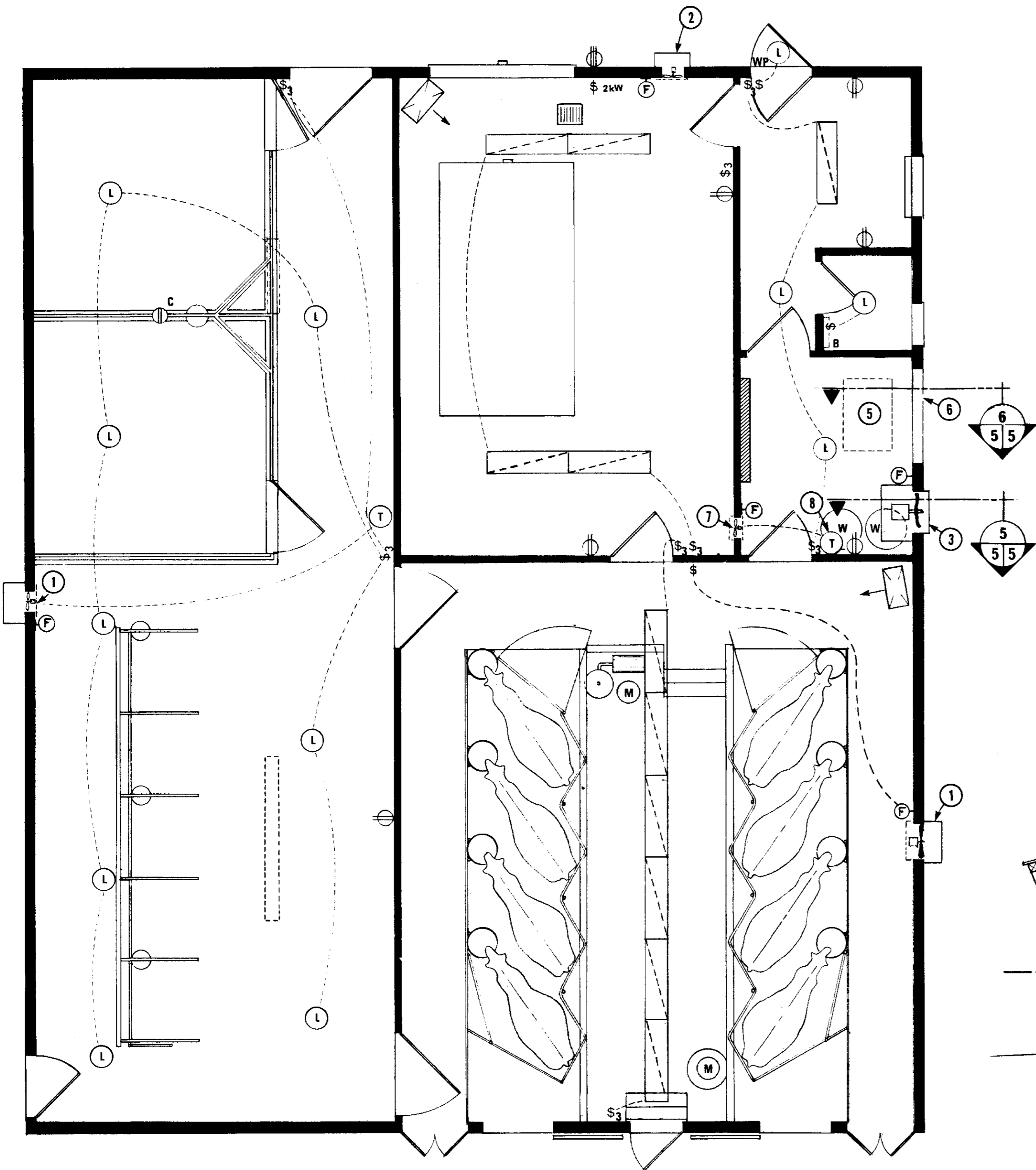
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3
2 4

SYM	REVISIONS	CHECKED	DATE	APPROVED

LONGITUDINAL SECTION
& DETAILS

DESIGNED <i>JET</i>	DATE 84-01	PLAN
DRAWN BROWN/MORDEN	REVISED	M-2502
TRACED	DETAIL NUMBER A	SHEET 4 OF
CHECKED <i>JAM</i>	ORIGINATES ON SHEET B DRAWN ON SHEET C	



- 1 2-speed exhaust fan, controlled with thermostat wired in series with low-off-high manual speed selector switch
- 2 optional small fresh-air intake fan to provide positive pressure in milk room
- 3 backdraft louvers, inside weatherhood and exhaust fan to exceed fan capacity of compressor unit (5); control fan with 3-position switch indicating "on automatic" (with milk cooler), or "off", or "on manual", weather hood closed for winter, open for summer
- 4 removable insect screen, clean frequently in summer
- 5 milk cooler condenser unit
- 6 rectangular wall opening, at least twice the face area of condenser coil unit; hinged door with 50 mm insulation is secured open in summer, closed in winter
- 7 300 mm 2-speed fan, control with high/low speed selector switch with off neutral, wired in series with thermostat (8)
- 8 farm type thermostat 1500 mm above floor, set to start fan (7) at 16°C in winter

ELECTRICAL

- | | | |
|--------------------|--------------------|--------------------------------------|
| ceiling | wall | |
| (L) | (L) | Incandescent Lampholder |
| (L _{wp}) | (L _{wp}) | Weatherproof Incandescent Lampholder |
| (FL) | (FL) | Flourescent Fixture |
| (D) | (D) | Duplex Convenience Outlet |
| (S) | (S) | Special Purpose Outlet |
| (F) | (F) | Fan Outlet |
| (M) | | Motor |
| (T) | | Thermostat |
| (W) | | Water Heater |
| (S) | | Single Pole Switch |
| (3) | | Three Way Switch |
| (FH) | | Fan Forced Heater |
| (BUH) | | Baseboard Unit Heater |
| (DP) | | Distribution Panel |
| (2kW) | | 2kW Rated Manual Switch |

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ELECTRICAL PLAN
& WALL SECTION

DESIGNED <i>JET</i>	DATE 84-01	PLAN M-2502
DRAWN BROWN/MORDEN	REVISED	
TRACED	DETAIL NUMBER A	SHEET 5 OF 5
CHECKED <i>JAM</i>	DRAWN ON SHEET C	