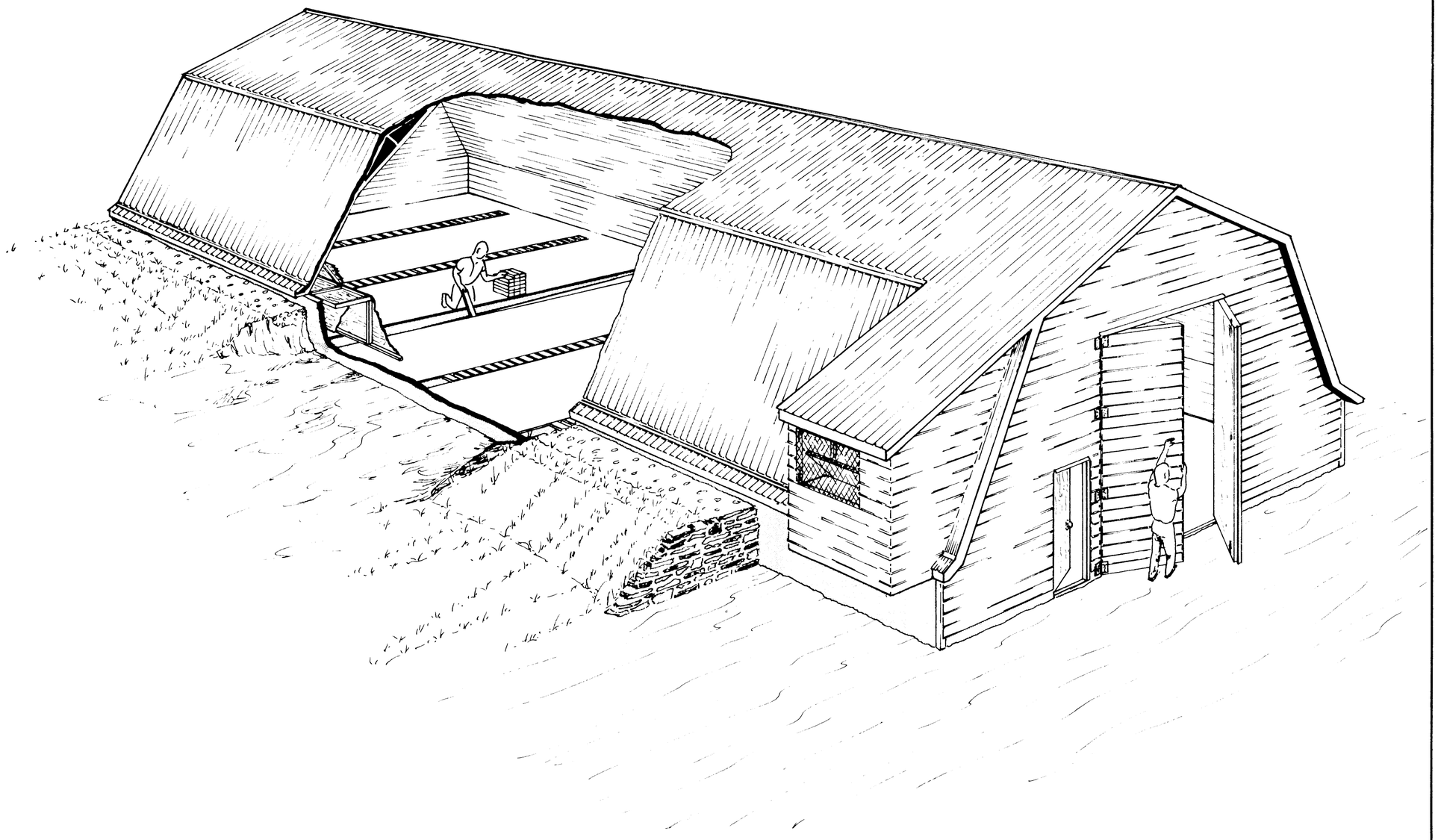


1	for management information see leaflet M-6311
2	for proportioning ventilation system and electrical details see Agriculture Canada publication 1528, Bulk Potato Storage
3	attach leaflet M-6330, Fruit and Vegetable Storage Insulation
4	include plan M-6121 "INSULATED STORAGE DOORS"
5	include braced rafter plans M-9256 (#2 spruce) or M-9280 (#2 Douglas fir)
6	ALL DIMENSIONS IN THIS METRIC PLAN ARE IN MILLIMETRES (mm) UNLESS OTHERWISE SPECIFIED

LIST of DRAWINGS

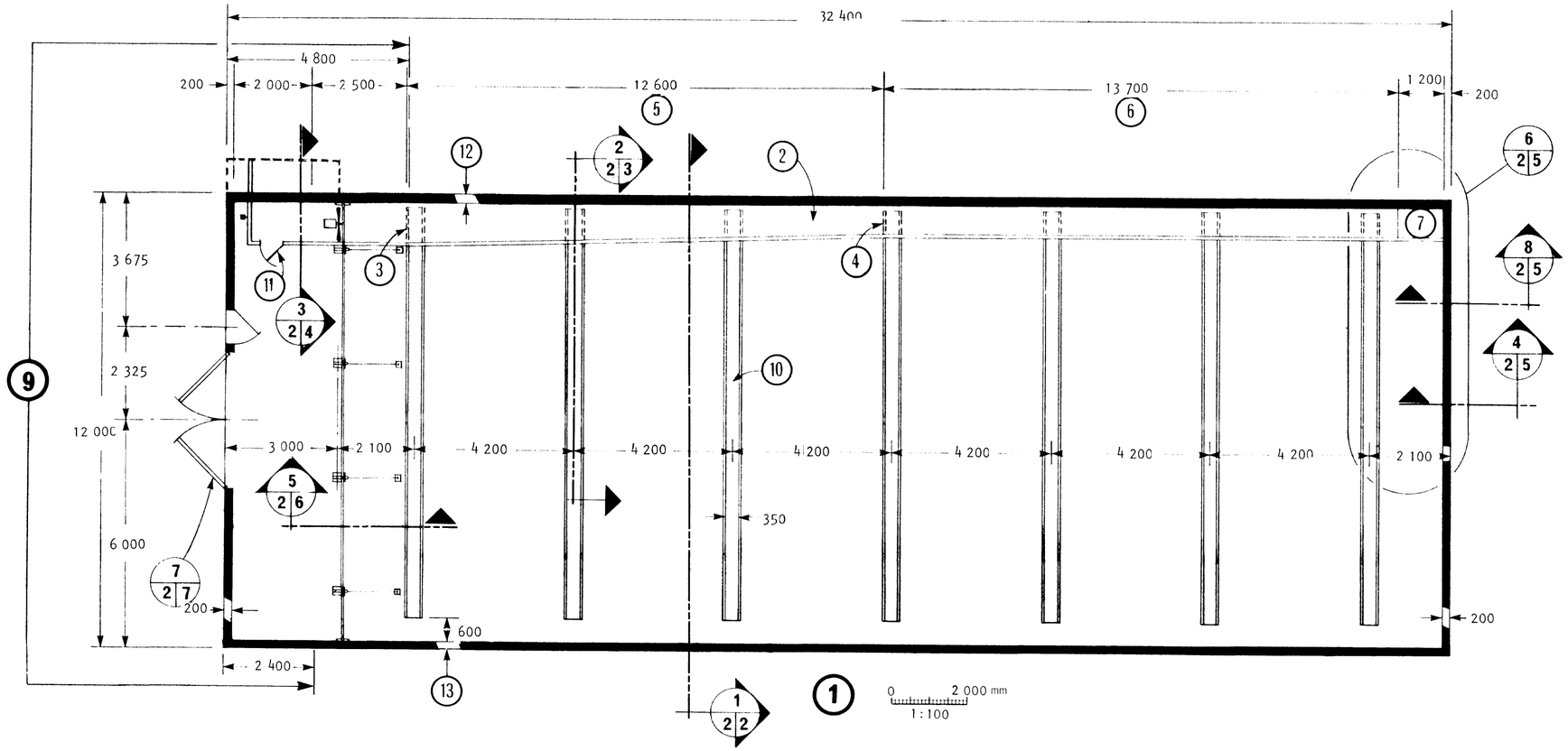
WARNING
This plan may require structural and other changes to meet local site conditions, climatic loads, user requirements and applicable building regulations (such as the Canadian Farm Building Code). Before construction, the user of this plan is responsible to ensure that all required changes are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

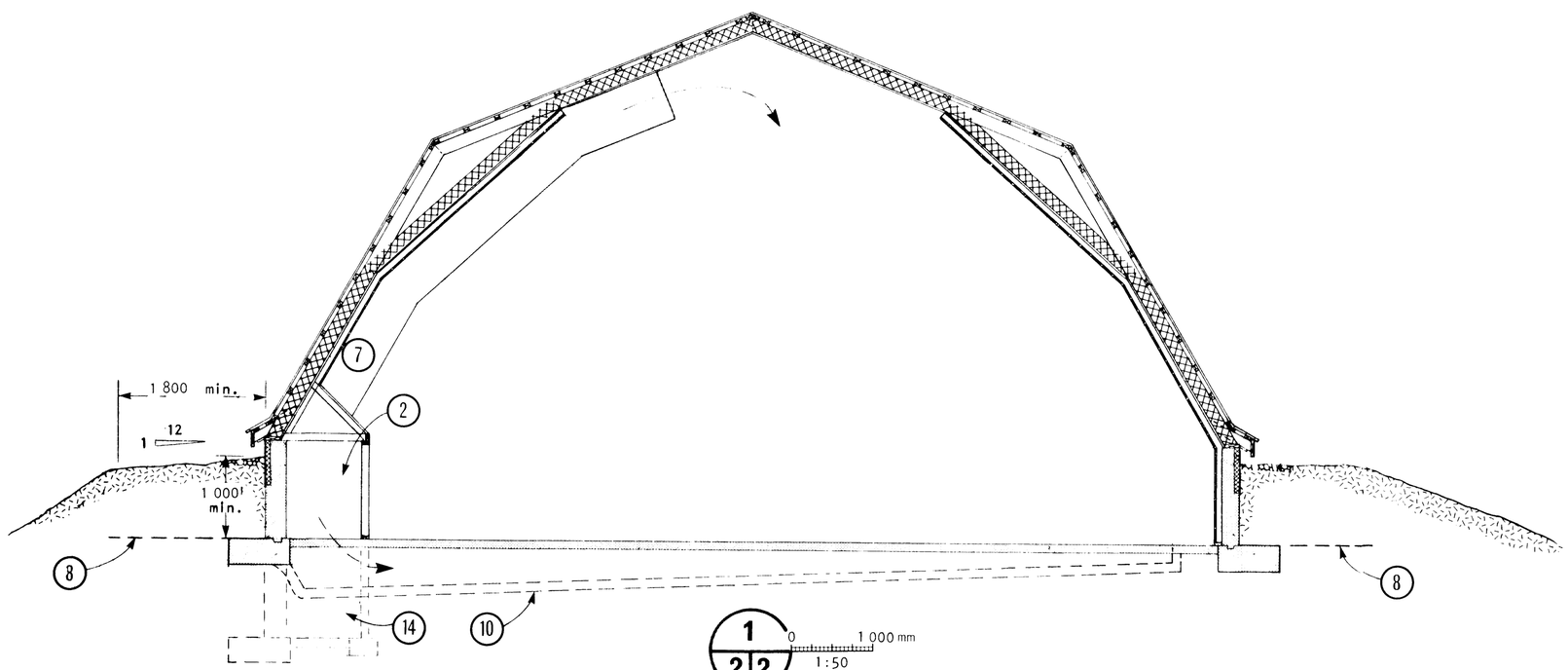
SYM	REVISIONS	CHECKED	DATE	APPROVED

CANADA PLAN SERVICE

BRACED RAFTER
BULK VEGETABLE STORAGE

DESIGNED H.A.J.	DATE 79-04	PLAN
DRAWN LEO BLAIS	REVISED 79-04	M-6311
TRACED	DETAIL NUMBER A ORIGINATES ON SHEET B DRAWN ON SHEET C	SHEET 1 OF 6
CHECKED JET		





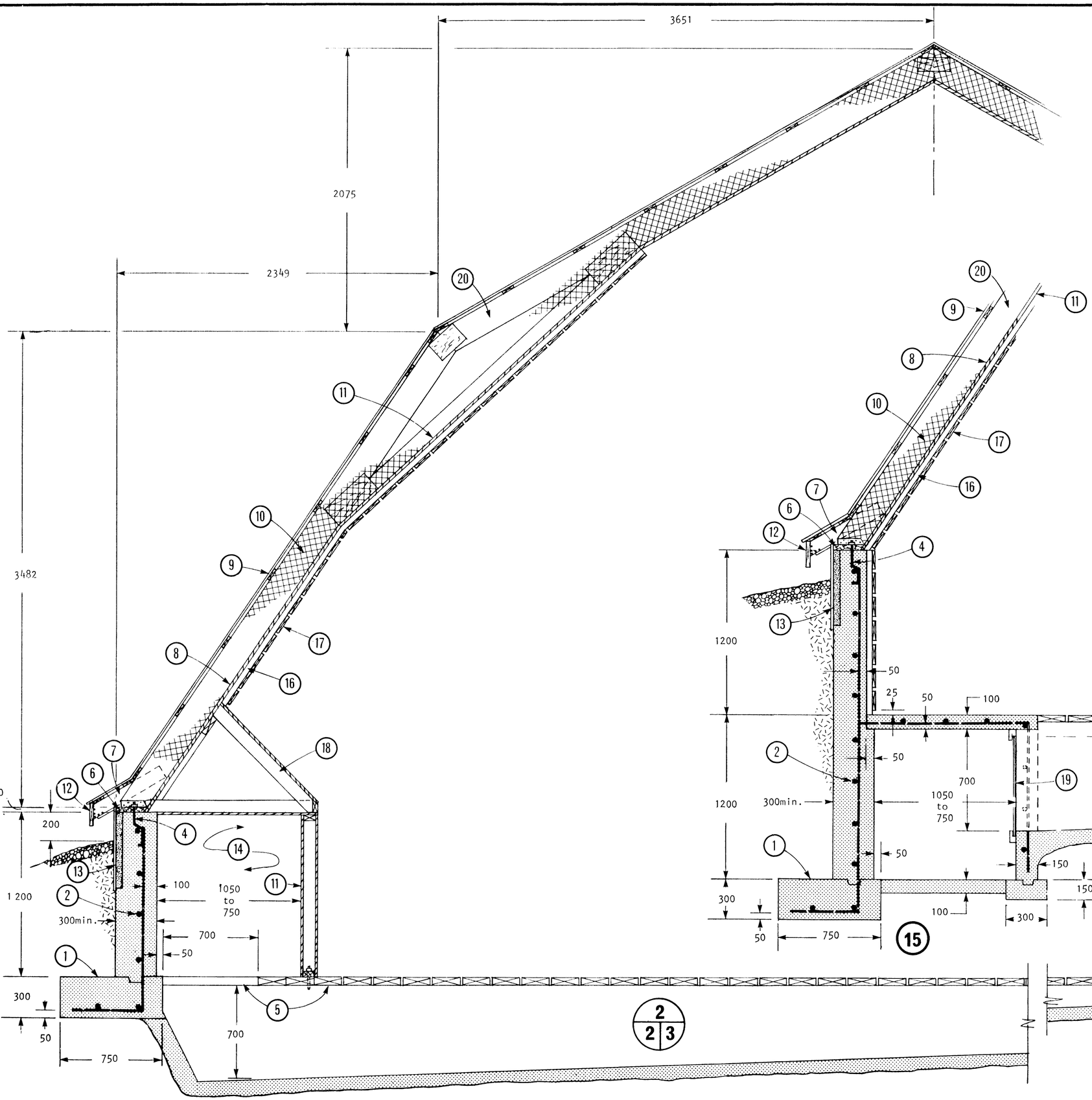
1.	floor plan
2.	main duct
3.	inside duct dimensions 1 050 x 1 200 mm
4.	inside duct dimemsions 750 x 1 200 mm
5.	duct tapers between (3) & (4)
6.	duct not tapered
7.	main duct extension up, for shell ventilation open slide valve from main duct, close cross ducts (10)
8.	original grade (approximate)
9.	concrete footing stepped down within this area
10.	cross duct
11.	access to ventilation system, airtight door 600 x 1 950 mm
12.	foundation thickness to be nominal rafter size plus 100 mm at duct 2 or 50 mm at duct (14), 300 mm min.
13.	foundation thickness to be nominal rafter size plus 50 mm, 300 mm min.
14.	alternate main duct see sheet 3

SYM	REVISIONS	CHECKED	DATE	APPROVED

CANADA PLAN SERVICE

FLOOR PLAN & SECTION

DESIGNED H.A.J.	DATE 79 - 04	PLAN
DRAWN A.C. MORDEN	REVISED	M-6311
TRACED	DETAIL NUMBER ORIGINATES ON SHEET A B C DRAWN ON SHEET	SHEET 2 OF 6
CHECKED J.E.T.		



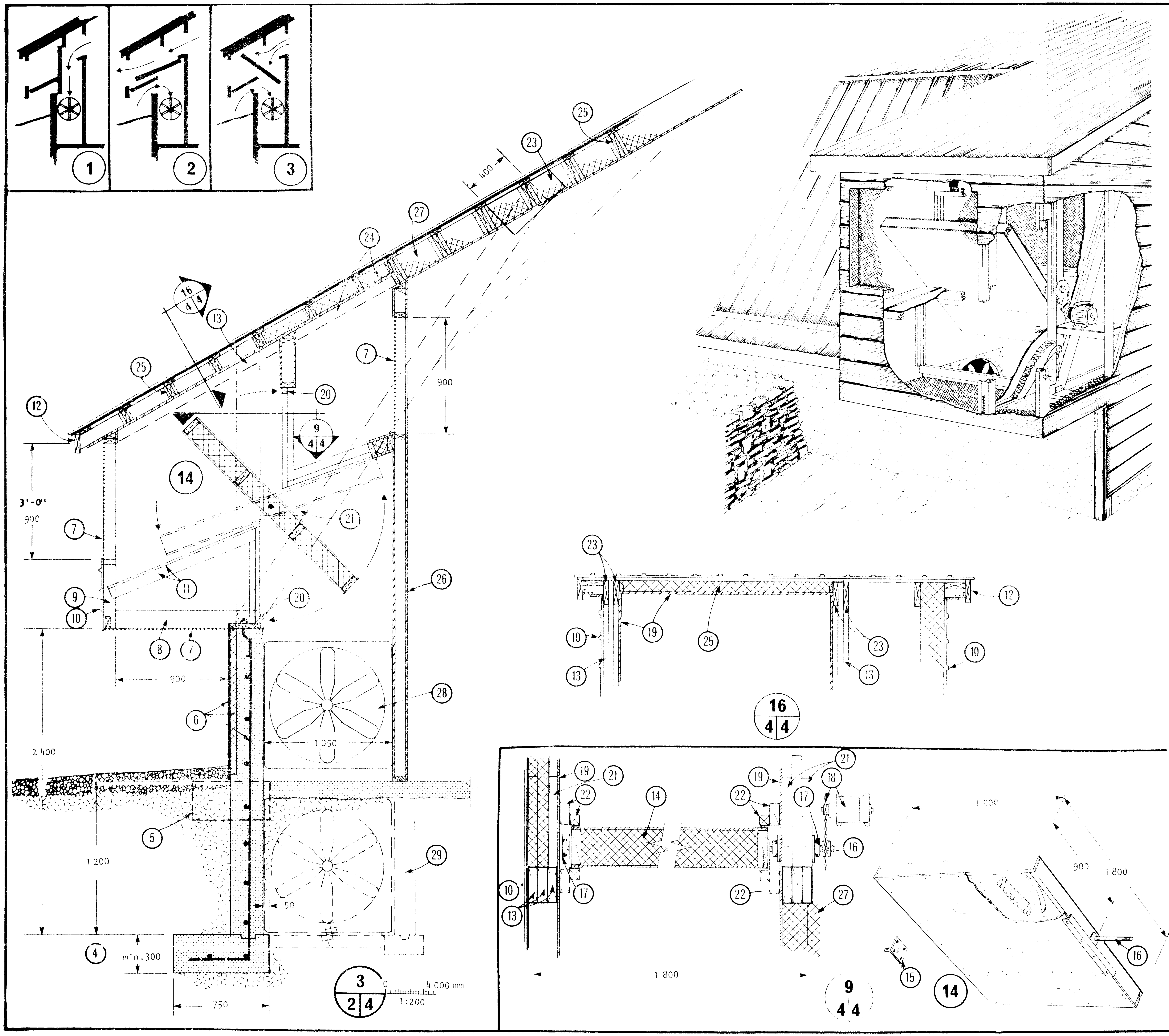
1.	footing 20MPa concrete, 6% air entrained, 38 x 89mm keyway; footing dimensions and reinforcing based on ground snow load of 4 kN/m^2 and safe soil bearing capacity of 150 kN/m^2
2.	10M rebars (400 MPa yield) @ 300mm oc both ways
3.	concrete floor on compacted soil
4.	anchor bolts, 3/4" x 300mm @ 1200mm oc
5.	rabbet floor 55 x 80mm at ducts, for 75 x 200mm rough sawn planks, spaced 13mm apart
6.	38mm pressure treated sill, bevel cut to match rafter (20) and plywood (11), trim rafter end to galvanized joist hanger, 38mm large-head galv. roofing nails hanger to rafter and sill
7.	38 x 89mm lookout rafter from 600mm length
8.	150 polyethylene vapor barrier
9.	galvanized roofing over min. 25mm (full) x 100mm purlins 600mm oc max.
10.	glass fiber insulation, RSI-3.5 min., see leaflet M-6330
11.	7.5mm fir or spruce exterior grade plywood, face grain perpendicular to rafter, end joints staggered 1200mm oc, nail with 38mm large head galvanized roofing nails @ 150mm oc
12.	19 x 140mm face board, 18.5 x 100mm soffit, 50mm vent slot, hardware cloth rodent stop all around
13.	50 x 550mm rigid polystyrene insulation tacked with finishing nails to forms before placing concrete, 5mm x 600mm high-density re-compressed exterior asbestos board drilled and nailed to sill (6)
14.	main plenum, framed with 38 x 89mm #2 grade spruce or better, 600mm oc, anchor pressure treated sill to floor with bolts and concrete anchors 1200mm oc, 12.5mm exterior plywood on vegetable side, see (15), alternate main plenum
15.	alternate main plenum
16.	38 x 38mm blocking at each rafter
17.	slotted wall lining of 19 x 140mm strapping applied horizontally, spaced 25mm apart
18.	38 x 89mm framing for main plenum
19.	slide valve for lateral ducts
20.	see plans M-9256 or M-9280 for rafter details; rafters to meet snow and wind load requirements are also acceptable for potato storage loads

SYM	REVISIONS	CHECKED	DATE	APPROVED

CANADA PLAN SERVICE

CONSTRUCTION DETAILS

DESIGNED H.A.J.	DATE 79 - 04	PLAN M-6311
DRAWN Al Morden	REVISED	
TRACED	DETAIL NUMBER A, ORIGINATES ON SHEET B, DRAWN ON SHEET C	
CHECKED JET		SHEET 3 OF 6



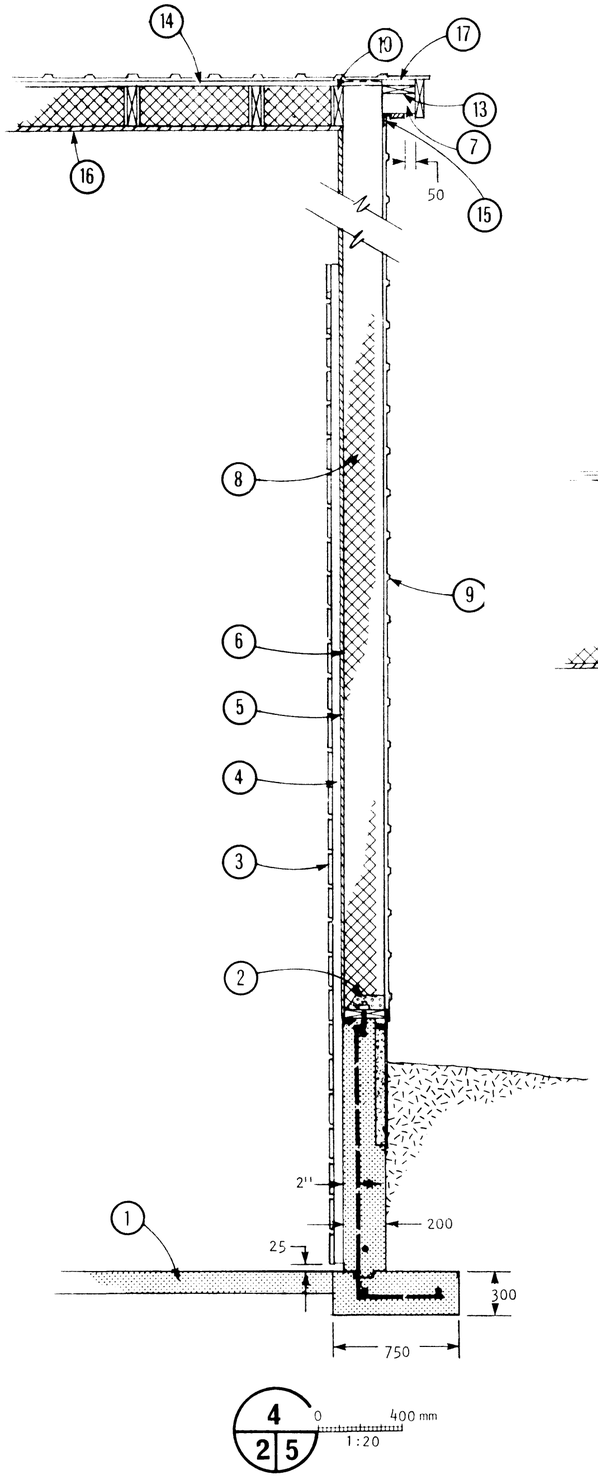
1.	recirculate, damper (14) closed (see note 30)
2.	ventilate, damper (14) wide open (see note 30)
3.	blend, damper (14) partially open (see note 30)
4.	concrete footing stepped down at damper housing and across entrance end of storage to below frost, see sheet 2 note (9)
5.	footing 2 400mm beyond damper housing, not applicable to (29)
6.	38 x 1 150mm polystyrene insulation under 5mm cement asbestos board, see sheet 3 for rebar details
7.	galv. hardware cloth, bird & rodent screen
8.	38 x 140mm framing
9.	38 x 89mm framing
10.	galv. steel cladding, horizontal
11.	ribbed galv. drip sheet on 38 x 89mm framing, sloped outwards. 25mm clearance from (10)
12.	38mm face board, 50mm screened vent, 19mm soffit
13.	3-38 x 140mm laminated post 2 outside members bear on lower rafter and support rafter extension, inside member bears on sill and fits between (24) at top and (23) at bottom
14.	damper, 2-38 x 140mm side members, 4-19 x 140mm crosspieces, 7.5mm exterior plywood both sides, 150mm glass fiber blanket insulation with 150μm polyethylene on warm side only, paint 6 faces
15.	pivot, 1" dia. x 50mm rod welded to 6 x 100 x 100mm steel plate screwed to (14) with 4-#12 x 50mm flat head wood screws
16.	control shaft, 1" dia. x 500mm rod welded to 6 x 50 x 75mm strap, 1½" x 1½" x ¼" x 300mm steel angle, screwed to damper (14) after shaft is positioned thru (21)
17.	flange bearing for (15) & (16)
18.	gearmotor, chain drive
19.	7.5mm plywood sheathing
20.	38 x 38mm damper stop
21.	support blocking for (17)
22.	38 x 89 and 38 x 38mm damper stop
23.	doubled rafter, with gusset extended as dimensioned
24.	rafter extension, same size as rafter
25.	purlin stiffeners cut to fit between doubled rafters (23), same size as rafters & 38 x 89 mm over damper housing, joist hanger at each end
26.	damper chamber, 38 x 89mm framing with 7.5mm plywood sheathing inside and out
27.	glass fiber insulation, RSI 3.5 min.
28.	7000 L/s fan @ 250 Pa (25mm) static pressure to ventilate 1100 tonnes of potatoes at rate of 6 L/s per tonne, hinged for duct access
29.	alternate main duct, for details see sheet 3
30.	for proportioning ventilation system and electrical details see Agriculture Canada publication 1508, Bulk Potato Storage

SYM	REVISIONS	NOTED	DATE	APPROVED

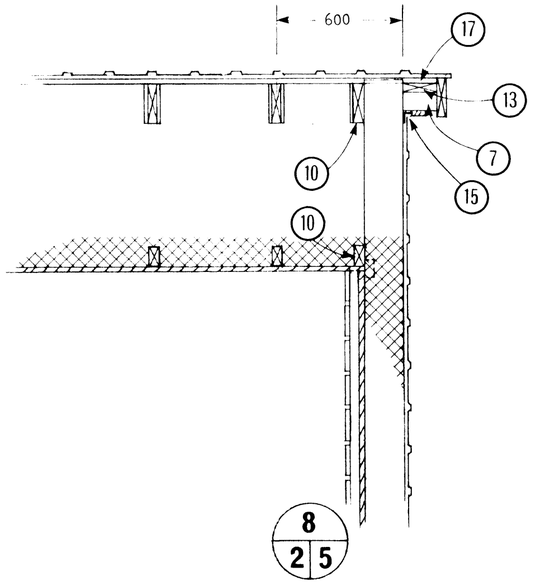
CANADA PLAN SERVICE

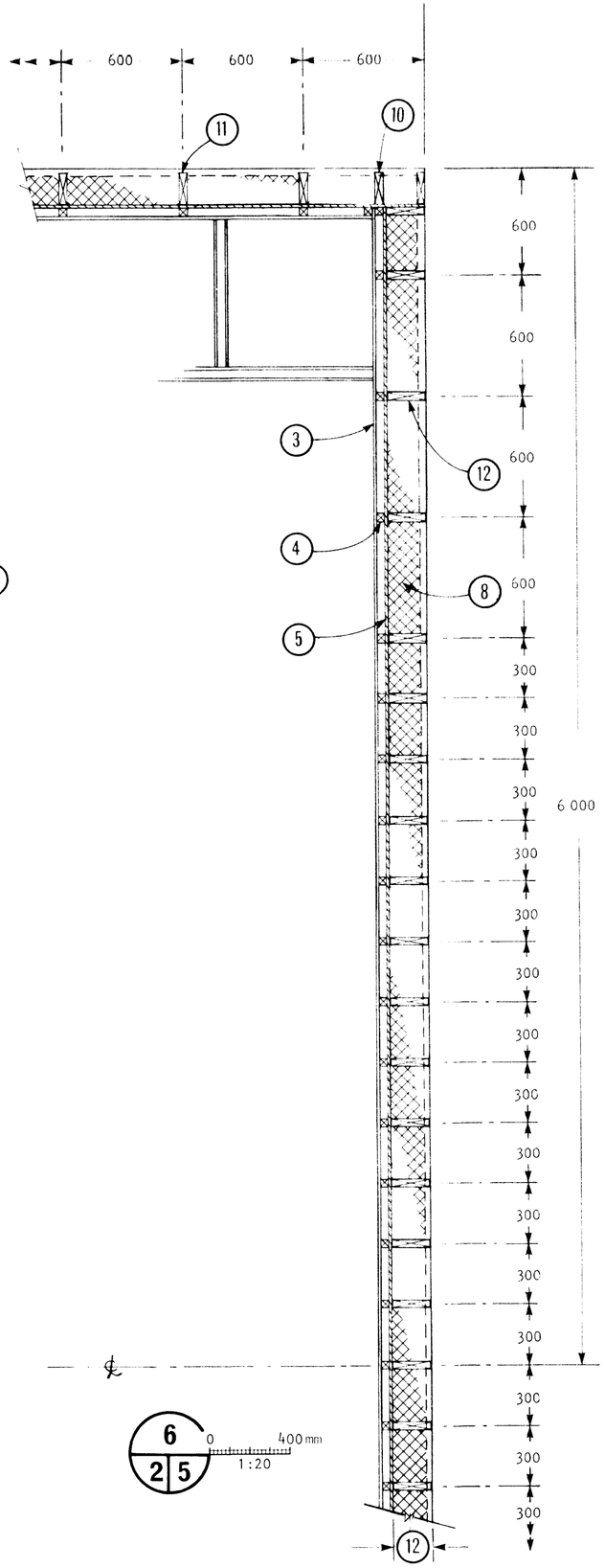
DAMPER HOUSING DETAILS

DESIGNED H.A.J.	DATE 79-04	PLAN M-6311
DRAWN	REVISED	
TRACED	(A / B C) DETAIL NUMBER A, ORIGINATES ON SHEET B, DRAWN ON SHEET C	
CHECKED J.E.F.		SHEET 4 OF 6



4 / 2 5 — 0 — 400 mm — 1:20





6 / 2 5 — 0 — 400 mm — 1:20

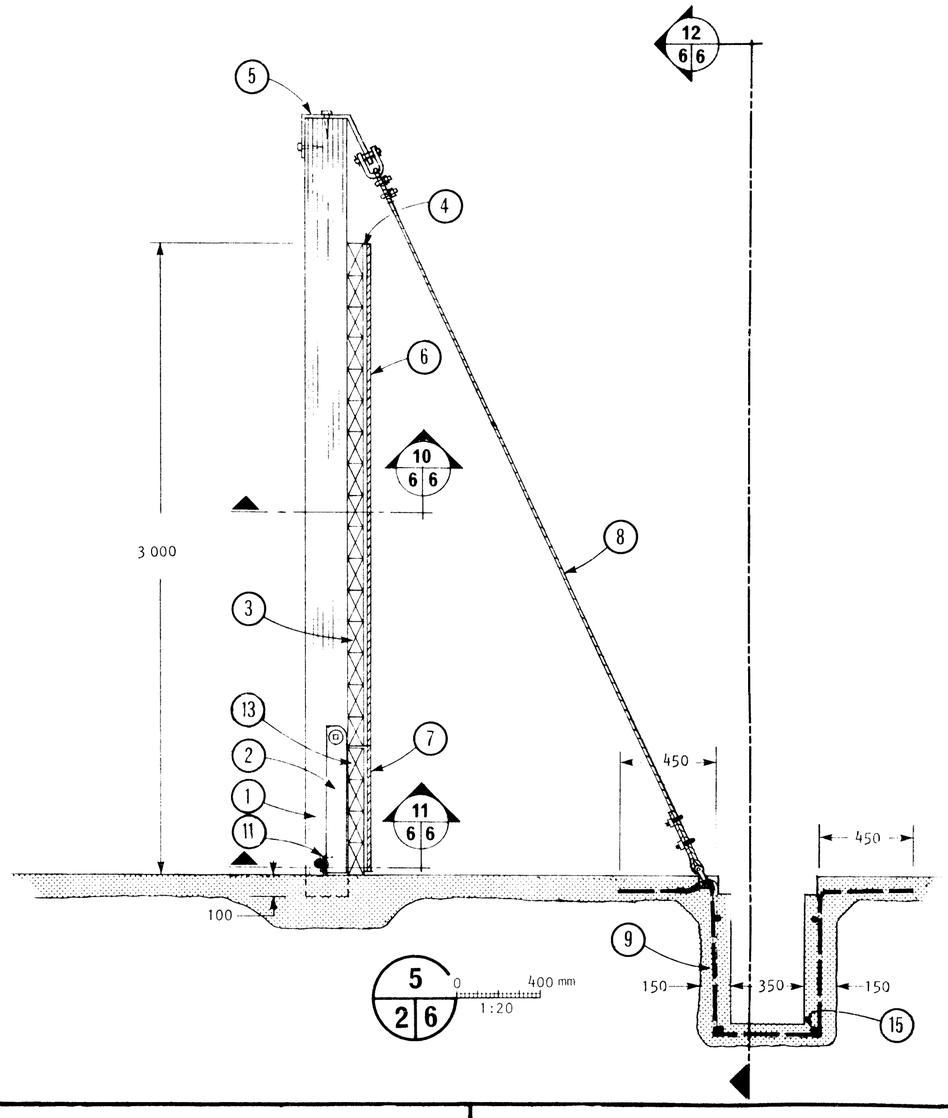
1.	100mm concrete floor
2.	galvanized joist hanger each stud to sill, 3/4" x 300mm anchor bolts @900mm oc
3.	19 x 140mm strapping spaced 25mm apart
4.	38 x 38mm vertical spacers at each stud
5.	7.5mm fir plywood
6.	150µm polyethylene vapor barrier
7.	38 x 89mm stocking, 38mm top board, 50 screened vent, 12.5mm soffit
8.	glass fiber insulation RSI-3.5 (see leaflet M-6330)
9.	galv. steel siding, ribs horizontal, nailed over asphalt felt
10.	end arch is located inside the stud wall
11.	rafters @ 600mm oc
12.	endwall studs 38 x 184mm #2 spruce or 38 x 184 mm #2 Douglas fir spaced and nailed to sill before erecting
13.	38 x 184mm stud stop (continuous)
14.	19 x 89mm x random length roof purlins, end joints staggered at least 1200mm oc
15.	50 x 50mm angle bent from 2.40m galv. steel
16.	7.5mm ceiling plywood, end joints staggered 1200mm, nail 4 edges each sheet with 38mm galv. large head roofing nails @ 150mm oc
17.	12-64mm nails each roof purlin to stud stop

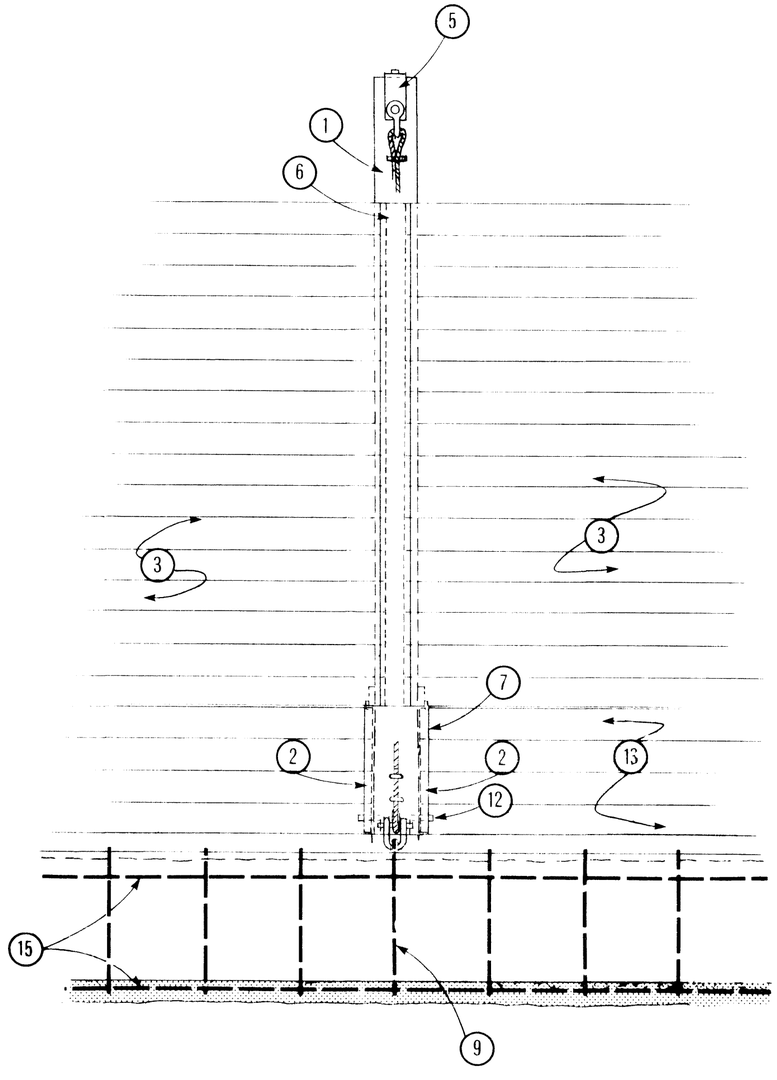
SYM	REVISIONS	CHECKED	DATE	APPROVED

CANADA PLAN SERVICE

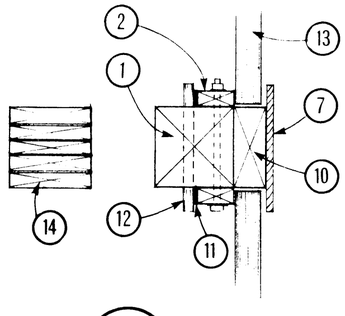
ENDWALL
CONSTRUCTION DETAILS

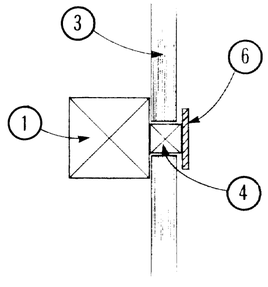
DESIGNED H.A.J.	DATE 79-04	PLAN M-6311
DRAWN A.C. Morden	REVISED	
TRACED	DETAIL NUMBER ORIGINATES ON SHEET A / DRAWN ON SHEET B C	SHEET 5 OF 6
CHECKED J.C.T.		





1.	184 x 184 x 3 600mmpost #1 structural spruce or Douglas fir, 3 000 mm oc
2.	38 x 89 x 700 mm latch board, secure with 18 x 300 mm bolt and washers
3.	63 x 150 mm full dimension bulkhead planks (long)
4.	75 x 75 x 2 400 mm (actual dimensions) spacer
5.	1/4" x 4" x 600 mm steel srtap, secure with 2 lag boltsidrill hele for shackle at end of wire rope (8)
6.	12.5 x 150 x 2 400mm plywood retainer
7.	12.5 x 300 x 600 mm plywood retainer
8.	3/8" wire rope (44.5 kN breaking strength) thimble with wire rope clips and 3/4" shackle both ends
9.	10M rebars - 450 mm oc (4 rebars bent to suit (8))
10.	75 x 180 x 600 mm (actual dimension) spacer
11.	4" x 40 x 75 mm steel bearing plate, screwed to (2)
12.	1" x 300 mm steel drive-pin, loose fit thru post
13.	planks same as (3) but short to clear post (1)
14.	alternate laminated post 5-38 x 184 mm
15.	4-10M rebars (continuous)





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CANADA PLAN SERVICE

BULKHEAD DETAILS

DESIGNED H.A.J.	DATE 79-04	PLAN M-6311
DRAWN Al Morden	REVISED	
TRACED	DETAIL NUMBER ORIGINATES ON SHEET / DRAWN ON SHEET	SHEET 6 OF 6
CHECKED JET		