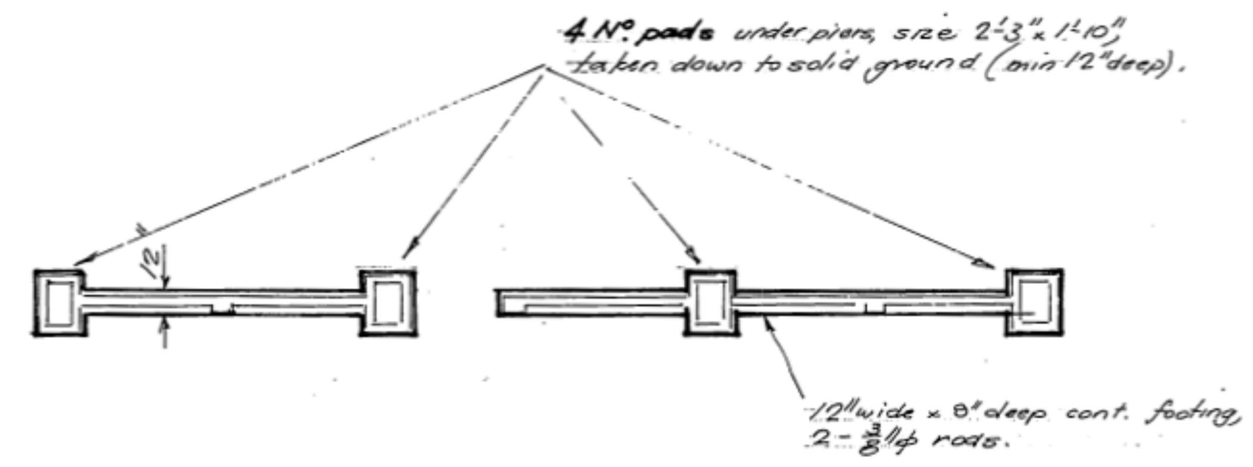
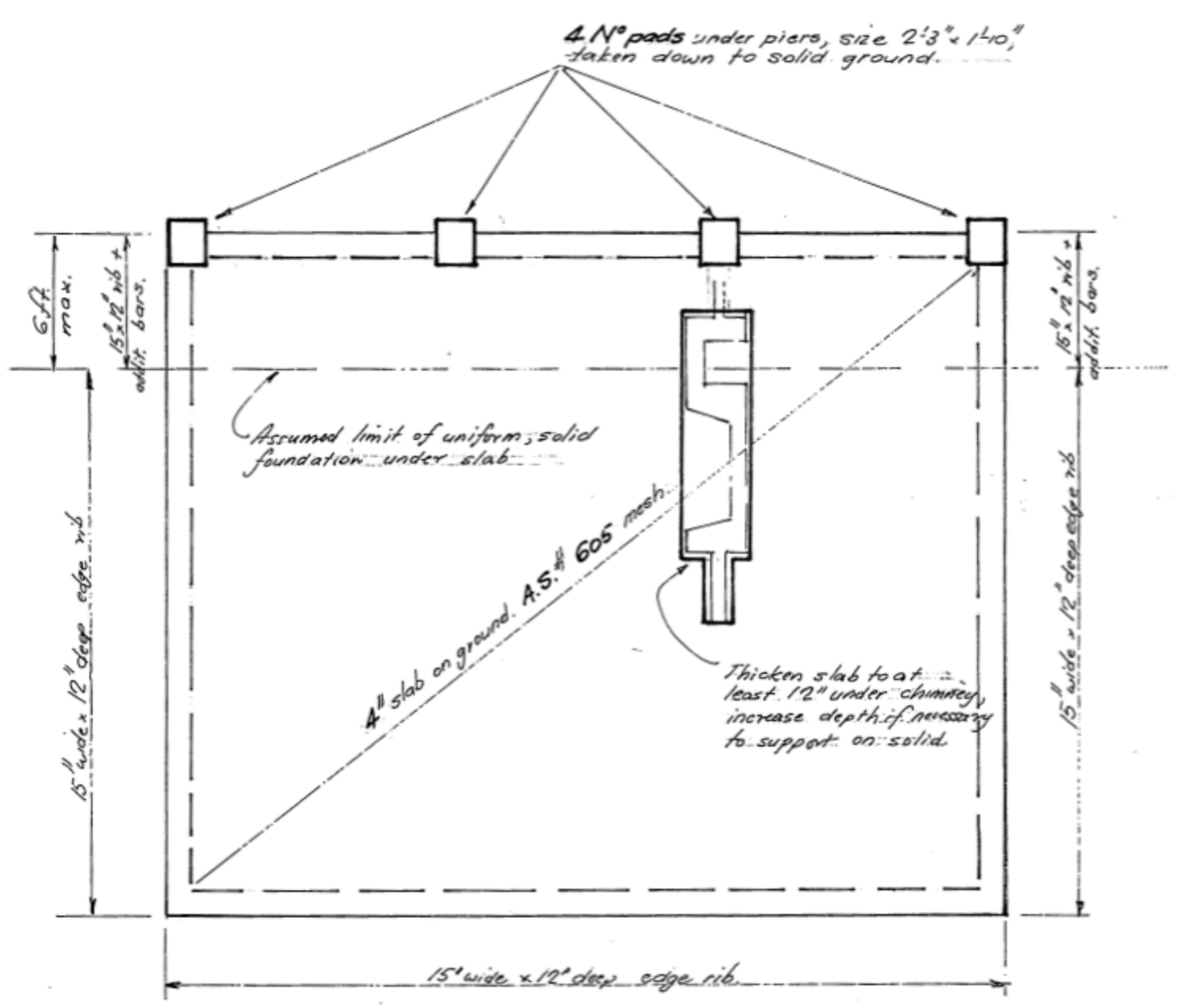
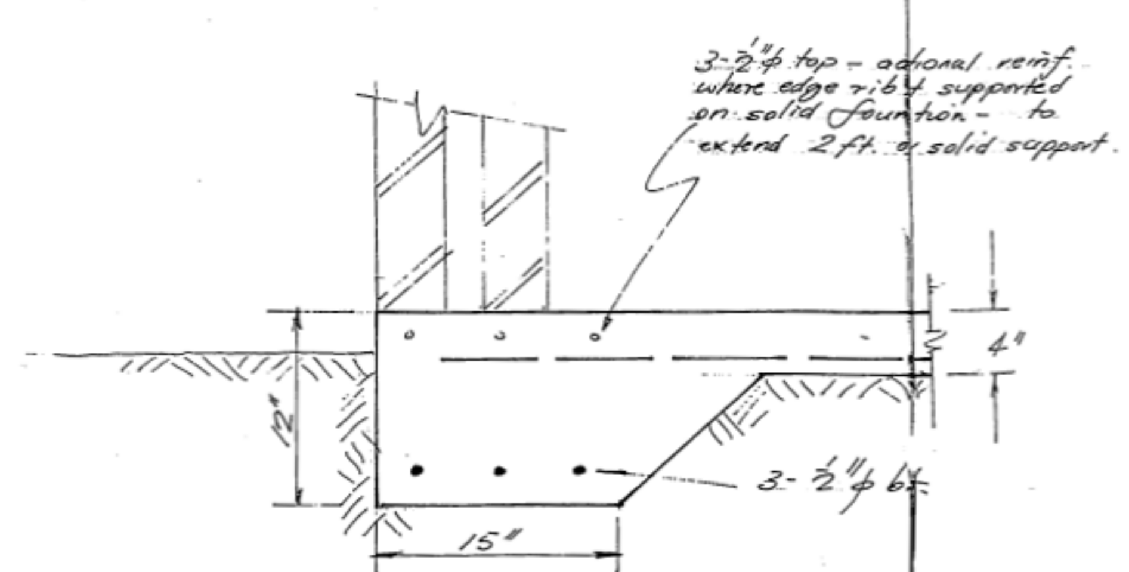
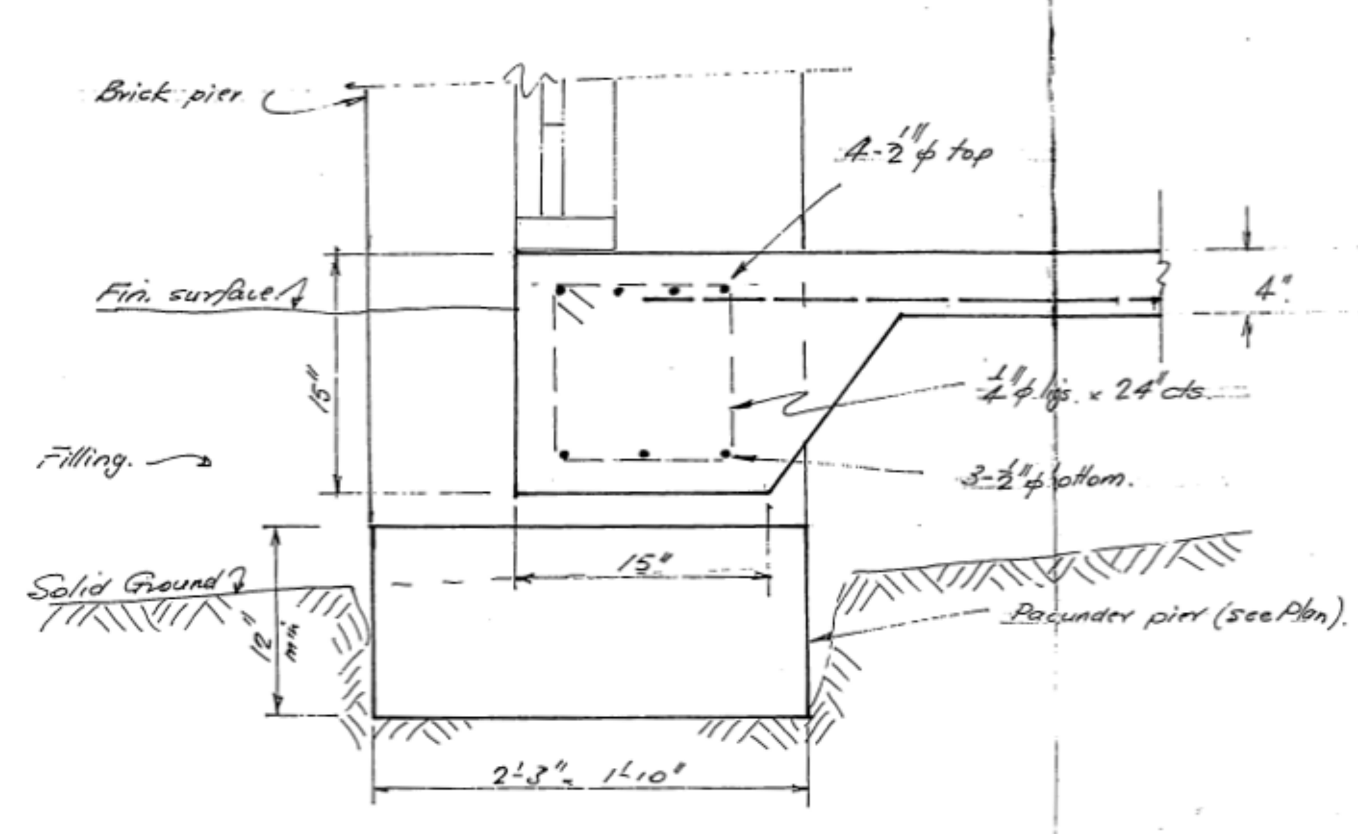




FLOOR and FOOTING PLAN. Scale 3/8" = 1'0"



TYPICAL EDGE RIB. 1" = 1'0"



EDGE BEAM NORTH WALL. 1" = 1'0"

STRUCTURAL COMPUTATIONS:

Floor slab on ground:

For domestic loading, with partitions of timber only, and assuming slab poured on solid ground (not fill) a 4" slab with minimum temperature reinforcement will be adequate.

Min. reinf in slab = 0.15 % i.e. 0.071 □"

∴ 4" slab. 605 mesh.

13 ft. span edge beam on N. side.

wall @ 10#/□'. 8 x 10 = 80 #/ft.
floor (3 ft. width) 3 x 40/50 } 90 = 270
roof (6 ft ") 6 x 20 = 120
self. 200
670 #/ft.

max. moment = 1/9 x ·670 x 13² x 12 = 150 in-k.

H = 15
d = 12.

∴ A_s = 150 / (20 x ·86 x 12) = 0.7 □"

V = 6 x ·67 = 4·02 k. v = 4020 / (15 x ·86 x 12) = 26 psi: O.K.

15 x 15 beam
4 - 1/2" top.
3 - 1/2" bott.

Typical 15" wide edge rib.

roof (max) 10 x 20# = 200
wall 8 x 90 = 720
rib = 200
1120 #/ft.

∴ press. = 1120 / 1.25 = 0.9 k/□'.

15" wide x 12" nominal reinf (3 - 1/2"φ)

Pads under N. wall piers.

edge beam load = 9 k.
pier 8 x 45 x 8 = 3.5 k.
say 13 k.

area = 2.25 x 1.85 = 4.1 □'.
∴ press = 13 / 4.1 = 1.4 T/□'.

GENERAL NOTES:

All concrete shall comply with the S.A.A Concrete Code for F'_c = 3,000 p.s.i.

Welded mesh shall lap 12" min at splices.

Minimum concrete cover: slab 1"
ribs, beams 2".
strip footing 2".

Foundation material assumed uniform over site; all pads, edge ribs, floor slab on solid, etc. are to receive support on solid, undisturbed ground.

N.B. 4 No. pads under N. wall piers require a min. bearing capacity of 1.4 T/□'. This assumption shall be verified on site by Building Surveyor and the pads increased in size if necessary.

YOUNG HOUSE at
LOT 32 in VERMONT ST.
GLEN WAVERLEY.

COMPUTATIONS and DETAILS of
FLOOR SLAB and FOOTINGS

DESIGNER: ALISTAIR KNOX
ELTHAM.

CONSULTING ENGINEER:
GORDON DOERING
B.C.E., A.M.I.E. AUST.
ELTHAM.

DATE: 3. 5. 67.