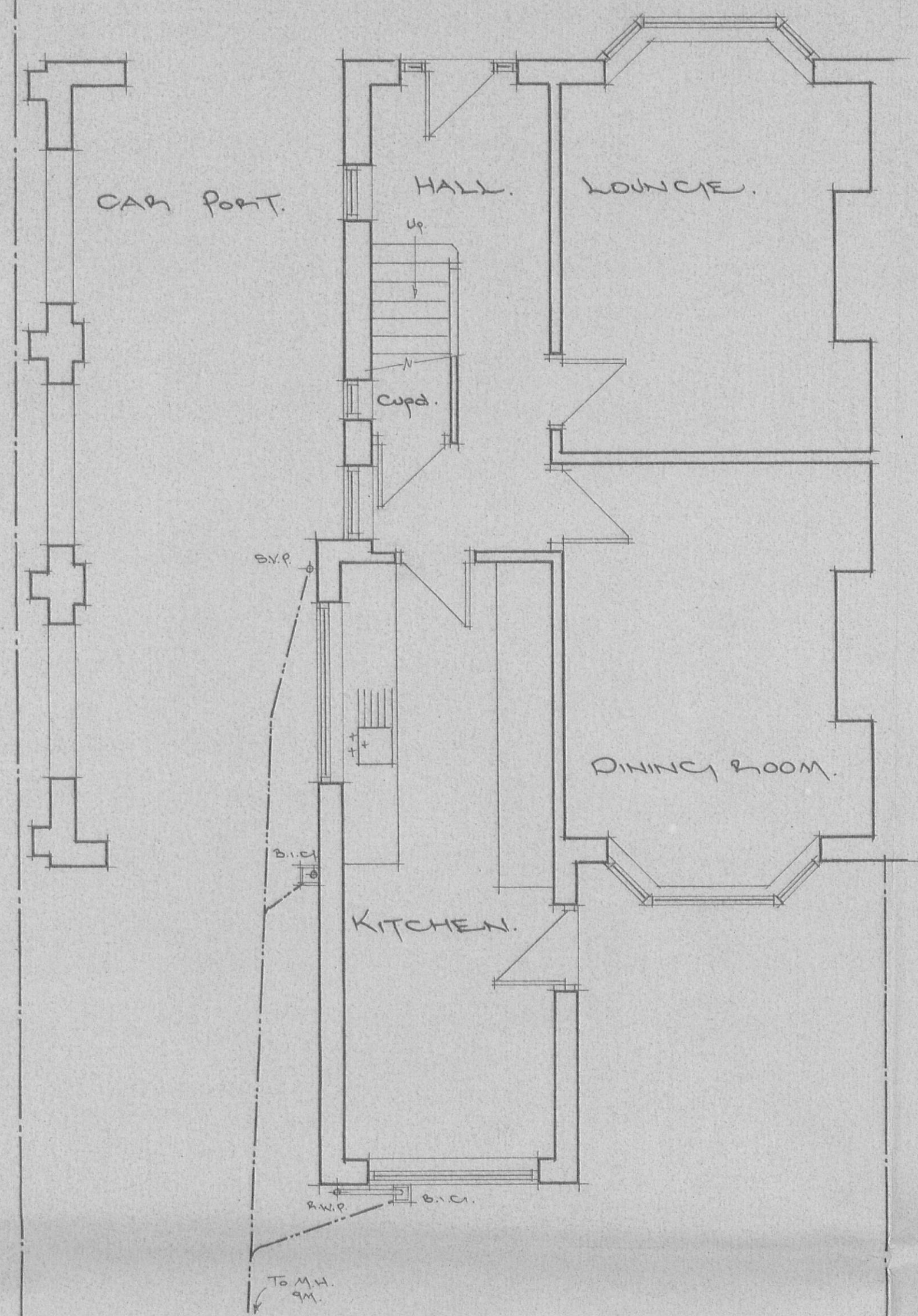
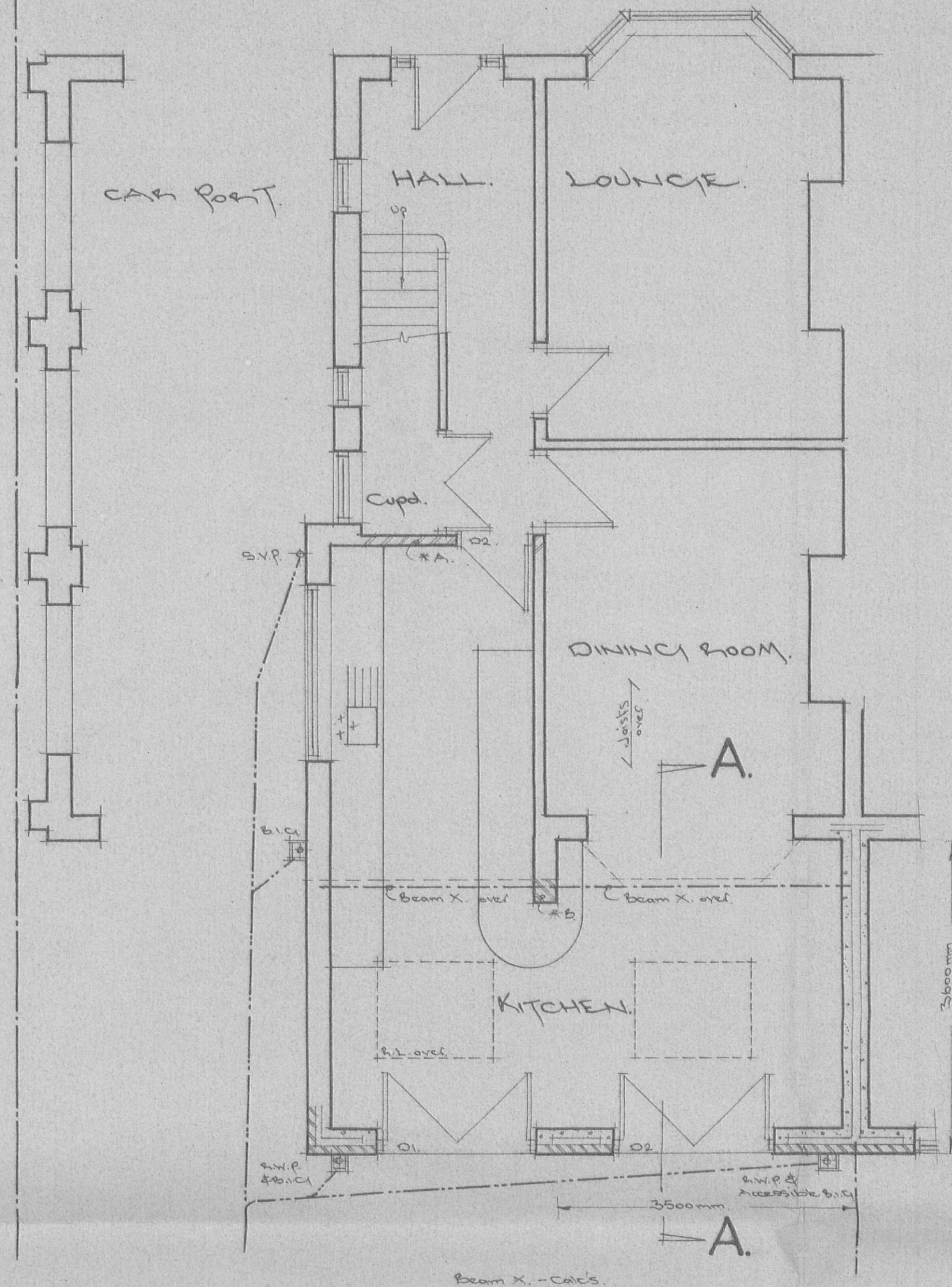




Existing plan. Scale: 1 to 50.



Proposed plan.

Beam X - Calc's.
 Span 3.5M. Load - Roof - $\frac{3}{2} \times 1.8 = 2.7 \text{ kN/m}$
 Total U.O.L. $3.5 \times 2.7 = 9.45 \text{ kN}$
 Allowable def. $\frac{3500}{200} = 17.5 \text{ mm}$
 $I_{reqd} = \frac{5 \times 9.45 \times 3.5^3}{8 \times 200} = 256.83 \text{ cm}^4$
 Try $178 \times 102 \text{ mm} \times 19 \text{ kg U.B.}$ ($I = 1556 \text{ cm}^4$, $E = 153 \text{ kN/m}^2$)
 $B.M. = \frac{9.45 \times 3.5^2}{8} = 4.14 \text{ kN.m}$
 $P_{ac} = 100 \text{ N/mm}^2$ $P_{ob} = \frac{4.14 \times 10^3}{1556} = 2.7 \text{ N/mm}^2$
 Use $178 \times 102 \text{ mm} \times 19 \text{ kg U.B.}$

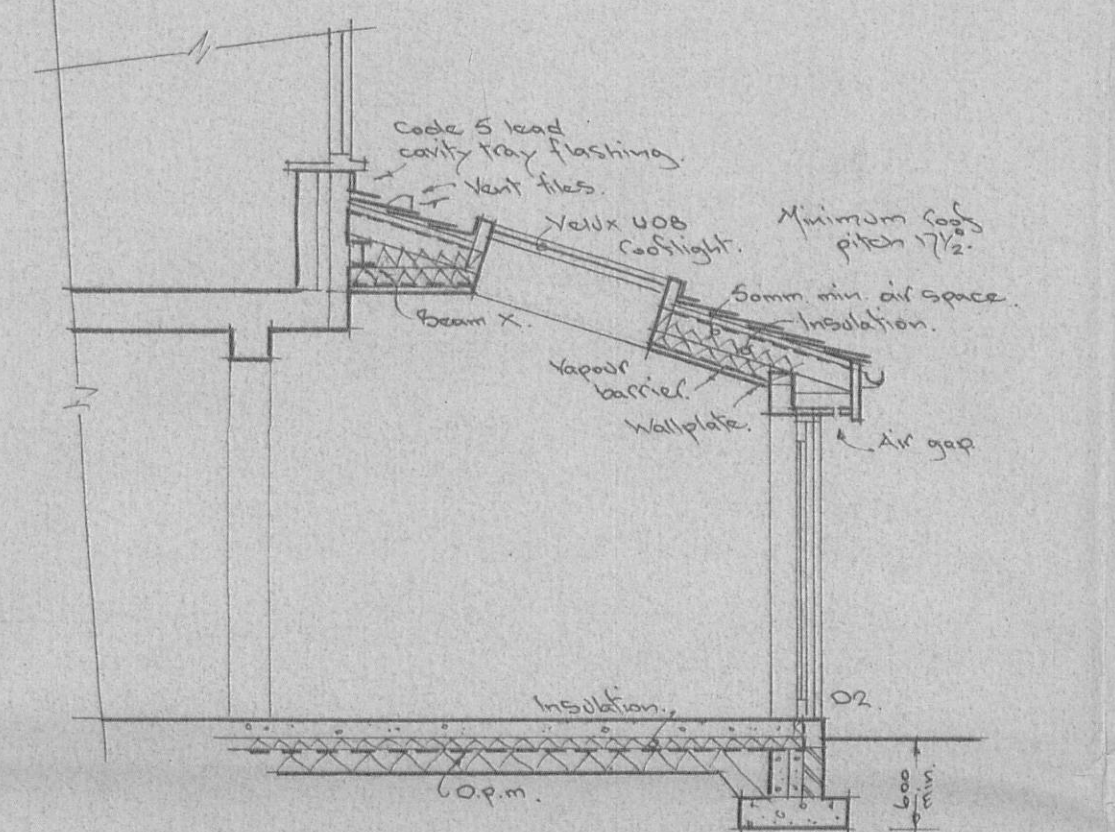
Roof - Marley Modern Smooth Tiles with 100mm headlap on 50x25mm battens on reinforced breathable felt on 150x65mm rafters at 400mm centres. (Double rafters to each side of rooflights).
 Ceiling - 13mm plasterboard to skin on 500 gauge Visqueen vapour barrier on 25mm Kingspan insulation to u/s. of rafters plus 100mm Kingspan insulation between rafters.
 Footspace to be ventilated via 25mm continuous eaves air gap & vent tiles to give equivalent area. Min. air space over insulation 50mm.
 100x50 mm wallplate strapped 1000mm down wall with 50x5mm galv. m/s. straps at 2000mm centres.
 Top of every alternate rafter to be strapped back to wall with 600mm long cleanked 30x5mm galv. m/s. straps all to L.A. approval.

Walls - External Wall - 102mm brick outer leaf - 100mm cavity with 50mm Kingspan insulation fixed to 100mm Thermolite Turbo block inner leaf with lightweight plaster finish. 9/5 wall ties at 750mm. half x 450mm vert centres.

Party wall - 2nd leaves 100mm concrete block min. density 1375kg/m³ separated by 75mm cavity. Plastered b/s with lightweight plaster (Min mass per unit area 10kg/m² cavity fill with Rockwool. New & ext'g walls well keyed in at cavities made continuous. Cavity closed at top of wall & around all openings by inner leaf on insulated d.p.c.
 Concrete cavity fill to ground level.

Floor - 100mm concrete reinforced with 110% layer A142 fabric on isolating membrane on 100mm Kingspan insulation on 1200 gauge Visqueen d.p.m. on sand blinded hard-core fill. 25mm insulation turned up slab edge at external walls.

D.p.m. lapped into wall d.p.c.s.
 Ventilation to existing suspended floors to be maintained via 100mm Ø U.P.V.C. pipes, periscope cavity ducts & 215x150mm air bricks to L.A. approval.



Section A-A.

D2 & Wall # A - Entry door & frame & lintel over to be repositioned wall to be built-up in 102mm brickwork on 450x200mm concrete foundation. Make good all ground to match ext'g. All to L.A. approval.

All new doors/windows to be double glazed with Argon filled Low E. gases in frames from FENSA Reg. supplied all to achieve U value 1.6W/m²K. 9/5 lights to equal 1/20 floor area plus high level controllable trickle vents of 8000mm².
 Glazing shown # to be approved safety glass.
 Lintels - D1, D2 - Catic CH55C.

Kitchen to have mechanical extract with manual control to clear bottles/sec.

Pier # B, extended 150mm past bearing point of beam X in solid brickwork to Local Authority approval.

It is assumed that R.F. bay W2 is supported on cantilevered floor joists. However prior to removal of C.F. window frame, works to be opened up to expose construction in order to verify this assumption. Should this not be the case additional beam X to be fitted to provide necessary support. All to L.A. approval.

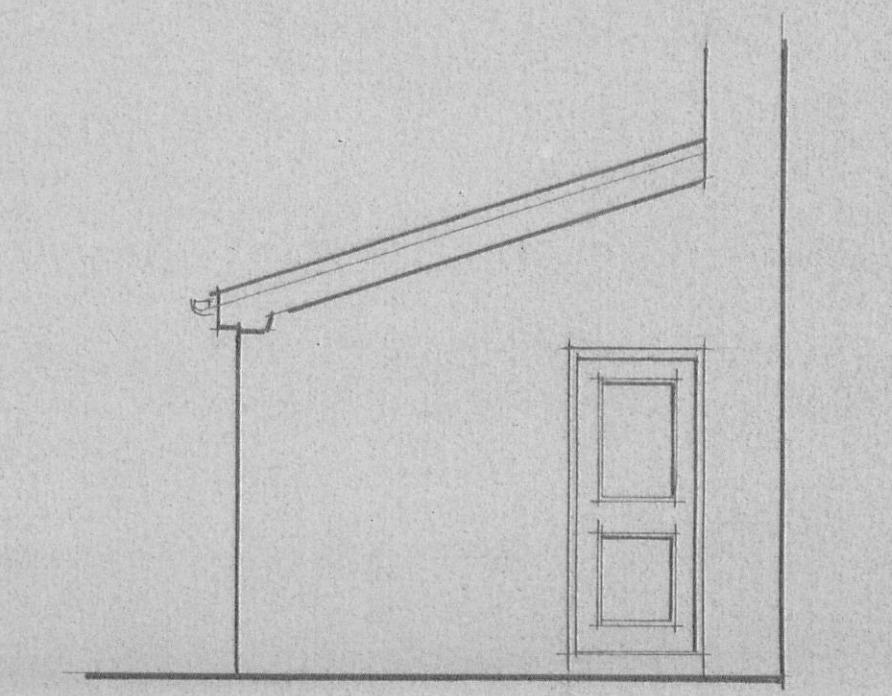
All electrical work must meet the requirements of Building Regs. Part P & should be designed, installed, tested & certified by persons competent to do so. Prior to completion the L.A. should be issued with the appropriate BS 7671 Electrical Installation Certificate.

All carpentry timber to be Grade C24.

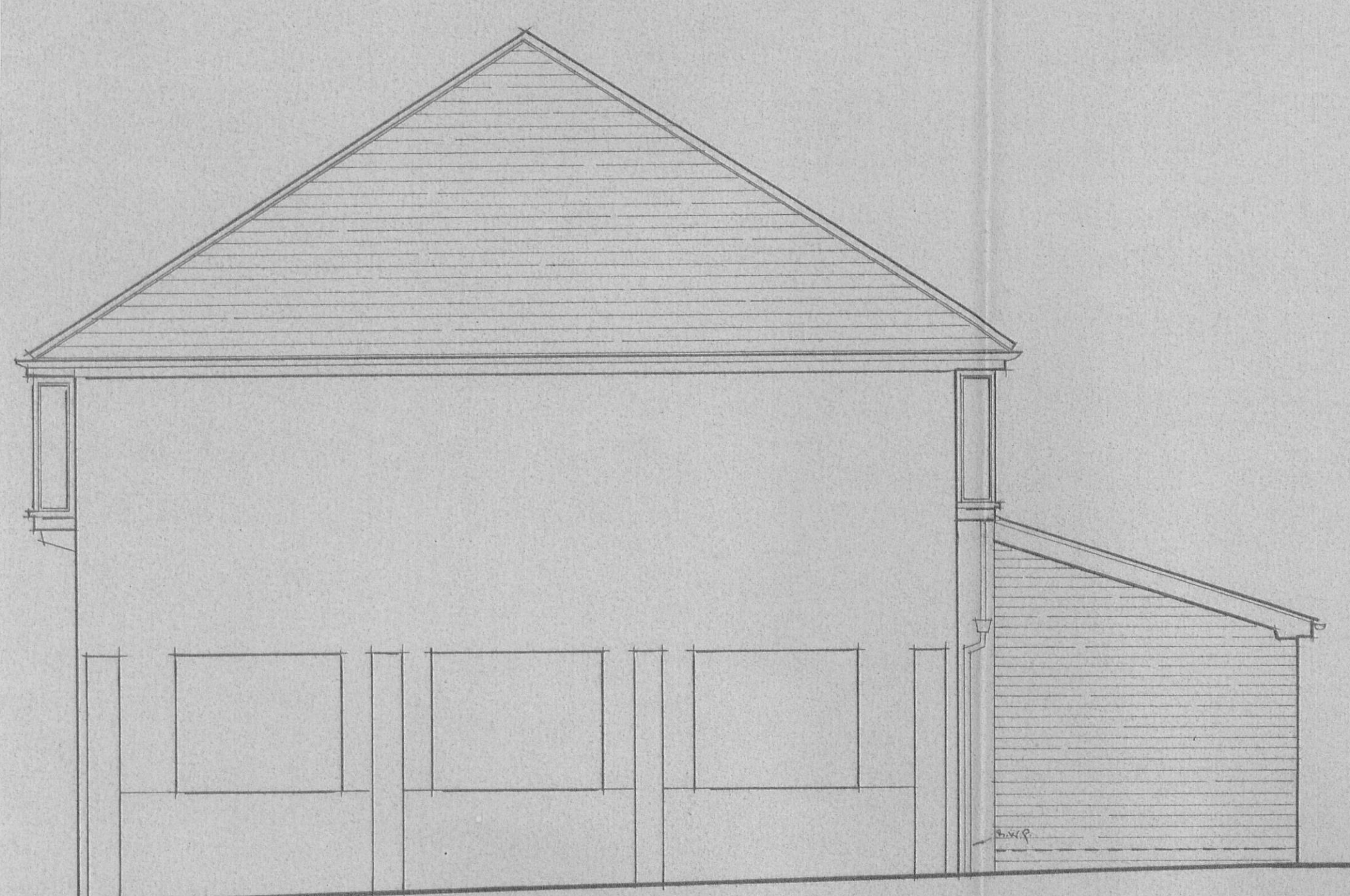
Contractor to include for lighting power & heating to clients requirements.

Applicant to obtain adjoining owners consent to comply with Party Wall Act 1996.

All dimensions to be checked on site before work proceeds.



Existing N.E. elevation.



South west elevation.



Existing South east elevation.



Proposed South east elevation.