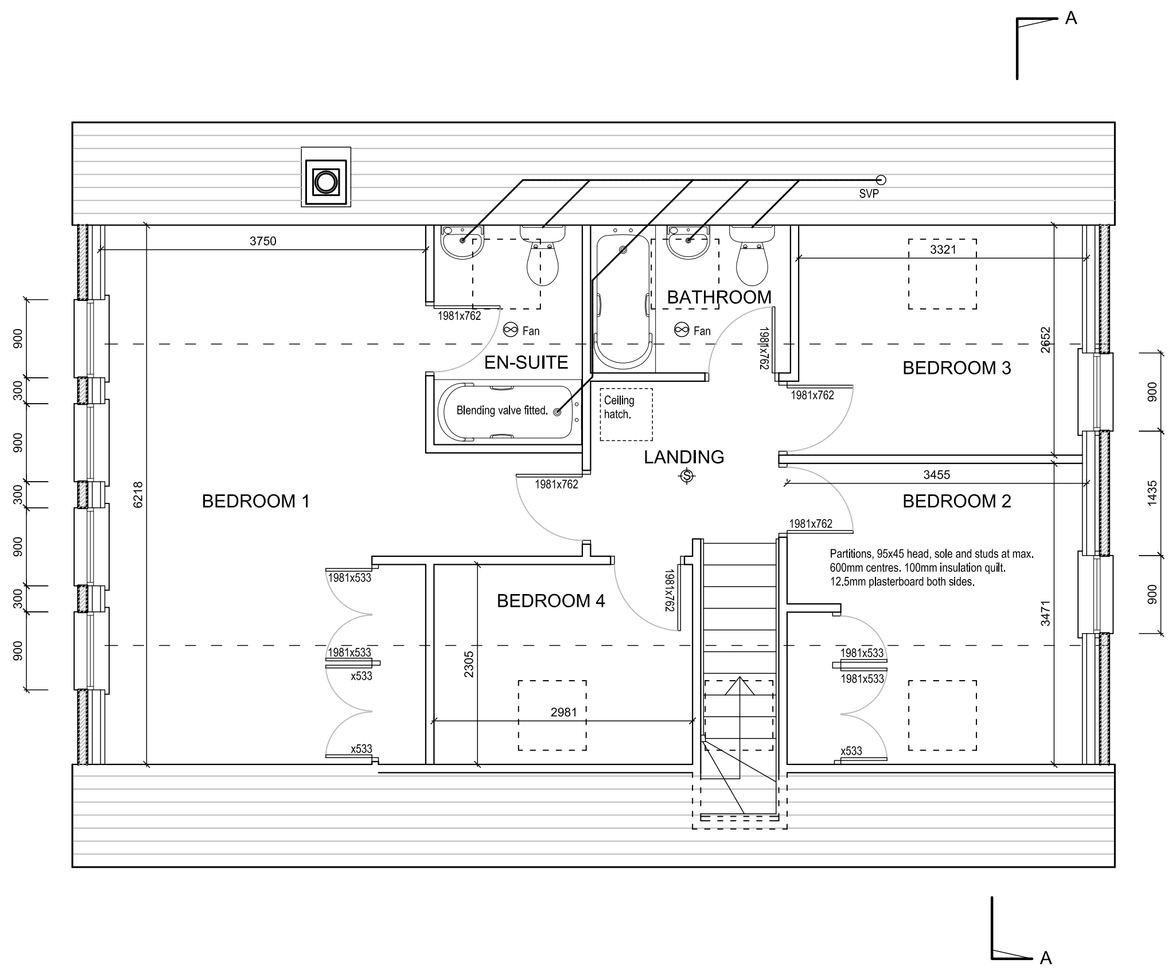
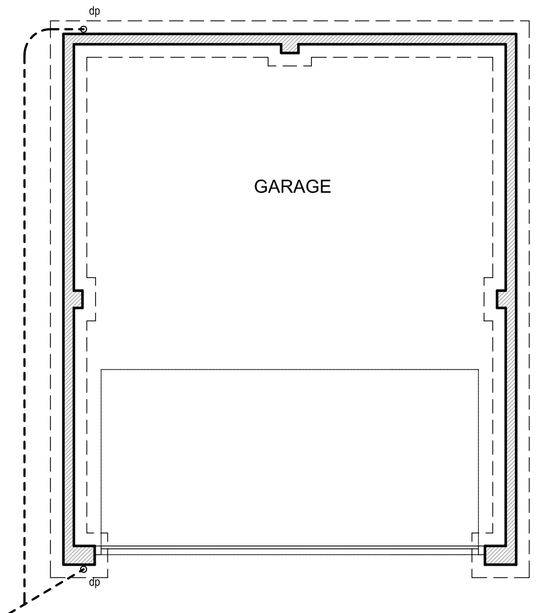


FIRST FLOOR PLAN

GROUND FLOOR PLAN



GARAGE PLAN

GARAGE :

450x150 concrete strip foundations below external walls, widened out around piers as indicated on plans and described for house.

External walls to be 100mm blockwork rendered externally and pointed internally.

Catnic or equal combined steel lintels over garage door supporting Art. stone lintel over vehicular door.

100mm concrete floor slab, on dpm, on consolidated and blinded sub-base.

Vehicular door to be up-and-over type to chosen design. Pre-finished steel panel in matching factory hung frame. Opening to be 4500mm wide x 2136mm high.

Roof to be concrete interlocking tiles, on 50x25 battens, on breathable underlay, on prefabricated truss system.
Fascias, soffits, verge treatment and ridge, all to match house.
Provide 30x2.5 galvanised mild steel holding down straps at maximum 2m centres to wallplates. Plug and screw to wall face.
Provide 30x2.5 galvanised mild steel restraint straps to gable walls, at ceilling and roof levels at maximum 2m centres. Hook over inner leaf and fix over a minimum of three trusses with full depth dwangs between.

Rainwater goods to match house,

Separate foul and surface water drains to sewer connections,

ROOF STRUCTURE :

95x45 wallplate / binder fixed to top of external wall panels; see also timber frame notes. Roof structures to be fixed to wallplate.

Roofs to be formed with prefabricated attic roof trusses. Trusses designed to BS5268 pt3, and certified by the manufacturer / designer. Truss details and overall roof layout to be confirmed by the manufacturer. Design loads -

Roof covering	0.60kN/m2 on slope
Battens and underlay	0.15kN/m2 on slope
Trusses	as appropriate
Ceiling dead load	0.25kN/m2 on plan
Roof live load	0.90kN/m2 or 0.90kN point load on plan
Ceiling live load	0.25kN/m2 or 0.90kN point load on plan
Wind loads	BS6399 pt 2

Off centre mid-span support available.

Trusses to be maximum 600mm centres, evenly spaced and vertical. Span and pitch as noted on roof layout drawings and / or sections. Trusses to be connected to wallplates with galv. m.s. truss clips each end, fixed with 40mm square twisted galv. nails to all holes. Trusses are not to be notched, drilled or cut, except plumb or sole cut beyond the wallplate.
Trusses to be braced as follows -
Diagonally to the underside of the rafters for the full length of each side of the roof, set at approximately 45 deg on plan.
Longitudinally at all rafter and ceilling node points,
Chevron bracing to struts where the span exceeds 7.8m, fixed over three trusses.
Brading to be 100x25 and fixed with 2no 3.35 dia x 65mm galvanised wire nails at each member position. Any laps to be over a minimum of two trusses. Bracing is to be extended to provide a fixing to gable panels and wallplates.

EAVES :

Plumb cut rafter feet to required overhang. Fix two-piece treated redwood fascia with vee-joint detail. Fit rigid pvc eaves eaves carrier.

Frame for and fix 10mm wbp plywood soffit.

22x150mm treated softwood timber sarking boards. 3mm gap between boards,with roofs covered with a breathable underlay, such as Tyvek Supra, all in accordance with the manufacturers instructions. 150mm minimum head lap and minimum 300mm side lap.

ROOF COVERINGS :

Fix 12x50mm treated counter battens and 50x25 treated battens at gauge to suit tiles. Fix with 65mm galvanised nails. Stagger joints in battens, with no more than 1 in 4 on the same rafter.

All roofs to be covered with concrete interlocking tiles as chosen. Set out roof to obtain the minimum lap recommended by the manufacturer. Fix with purpose made eaves, verge and general tile clips as recommended by the manufacturer.

Fix purpose made verge units or cloaked tiles

Fix ridge tiles using proprietary dry-fix system.

FLASHINGS :

Form flashings around chimney stack at intersection of roofs. Fix dwangs and 225x38 lay boards with the top level with the rafter tops. Cover with 4mm wbp plywood. Line with Code 4 lead in lengths n.e. 1.5m.

Carry out lead work in accordance with the recommendations of the LSA.
Where appropriate, apply patination oil to lead immediately after installation.
Lead to be laid on geotextile underlay.

SUPER-STRUCTURE :

Timber frame - The inner leaf is to consist of a structural timber frame designed to BS5268pt.2, and certified by a structural engineer. Frames will be constructed using the platform system, in panels generally up to a maximum length of 3600mm.

The frames will be constructed from 95x45 head, sole and studs. Stud centres to be maximum 600mm. Lintels to consist of 2no 220x45 timbers (with ply packer) nailed together, and supported on single or double cripple studs with full height stud each end. A 95x45 wallplate / binder is to be fixed around the top of the panels breaking joint. External corners to be formed with composite post or multiple stud detail, as shown on panel drawings.
All timber to be stress graded C16 or better. Certain members may be grade D40, as shown on panel drawings and engineers schedule. Timber to be dry graded and marked 'DRY' or 'KD' in accordance with BS4978. Timber to be vac-vac pressure treated.
The outside of the frame is to be covered with 9.5mm OSB sheathing to BS EN 300 OSB 3. Cover the external face of the sheathing with a breather membrane having a vapour resistance less than 60 MN s/g and a reflective surface, such as Tyvek Reflex. The membrane is to be fixed with a minimum vertical lap of 150mm and horizontal lap of 100mm, and is to fully cover all elements of the structure including corners and floor joists.

Nailing schedule -
Sole/ head plate to studs - 2no 4mm dia x 100mm long sheradised ring shank nails, end fixed.
Jointing of multiple members, studs / cripple studs, lintel timbers, etc., 4mm dia x 100mm long sheradised ring shank nails at 300mm staggered centres.
Wallplate / binder - 4mm dia x 100mm long sheradised ring shank nails at 300mm staggered centres.
Sheathing - 2.8mm x 50mm galvanised ring shank nails at 150mm centres to the perimeter of sheets, and 300mm centres to all other members.
Breather membrane - s/s staples or galvanised clout nails through pvc marker strip on stud positions.
Panel sole plate to substructure - 4mm dia x 100mm long sheradised ring shank nails at 300mm centres.
Joints in panels - 4mm dia x 100mm long sheradised ring shank nails at 300mm staggered centres.

Holding down straps to be provided around the external perimeter of the frames, at maximum 2400mm centres, at corners and jambs of full height openings. Straps to be 38x3x1100mm long L-shaped galvanised m.s. Hooked end to be built into external leaf. Fix to studs with not less than 5no 3.35mm dia x 65mm long galvanised ring shank nails.

External leaf - All frames to be clad externally with 100mm concrete blocks rendered finish.
Art. stone slip sills on dpc apron and lintels provided to all window openings. Where required, Catnic or equal galvanised steel timber frame lintels provided over openings. with clip fixing of top edge to frame. Weep holes above lintels at 1.2m centres, with not less than 2no. per lintel.
External masonry to be tied back to the timber frame with stainless steel frame ties at 600x450mm centres, increased to 225mm vertically at openings and unbonded jambs. Fix with stainless steel ring shank nails to studs.

Cavity barriers to be provided around openings, at intermediate floor levels, at eaves level / upper ceilling level and roof level.
Barriers around door and window frames to be 50x50 treated timber fixed to joinery and back to structural frame. Cover with dpc material.
Barriers elsewhere to be pvc sheathed mineral wool. DPC apron above horizontal barriers.

Cavity to be vented by building in proprietary units or leaving open perpends. Vents to be 65x10mm at maximum 1.5m centres. Ventilate each area divided by cavity barriers at high and low levels.
The lowest vent to be installed below the dpc.
Vents / weep holes will also be installed above dpc aprons.

PARTITIONS :

All partitions constructed in timber studwork, with 95x45 sole, head and studs at maximum 600mm centres. Loadbearing partitions to have lintels over openings, on cripple stud with full height stud each side.
Dwangs to be fixed in external walls at 1/3 and 2/3 height, and in ceilings at 600mm centres for fixing of partitions.
Additional dwangs to be provided for fixing kitchen units, sanitary ware, electrical fittings, etc.
Fill between studs with 100mm sound insulation quilt.

WINDOWS :

Windows throughout to be casement style white pvc. Provide draught proofing all around sashes. Controllable trim vent fitted to top of sash or through head detail. Sashes to have locking fastener and friction grip hinge mechanism. Glaze with sealed units incorporating soft coat low-E coating and argon fill. Toughened glass to be used in all critical locations - ie glazing within 800mm of ground or floor levels.

50x50 treated timber battens fixed around three sides of the frames. Fit frame into opening and fix by nailing through battens into timber studwork. Cover battens with dpc.
Fill around frame with expanding foam, and seal externally with silicone.

EXTERNAL DOORS :

All external doors to be suitable for disabled access, with a nominal size over the frame of 930mm. Door thickness typically 55mm. The minimum clear opening width required is 775mm.
Door and frame to be constructed as a complete doorset in white pvc. Include frame with integral stops, low level patent thresh, full draught stripping, 3no hinges per door, multipoint locking system and letter plate to principal entrance.
All glazing in, above and adjacent to the door to be toughened. Sealed units to include soft coat low-E coating and argon filled cavity.
Fix unit into prepared opening, with 50x50 cavity battens fixed around three side, nailed back to timber frame and covered with dpc. Fill gaps with expanding foam and seal externally with silicone.
Doors forming part of glazed screen to be fixed to side lights with joints sealed and finished with cover strip.

A stepped access is to be provided in accordance with AD Pt. M, para 6.17 :
The access steps are to be a minimum width of 900mm with a 900mm long landing top and bottom. A handrail is to be provided one side 900mm above the pitch line, and extend 300mm past the bottom. The step profile is to be as diagram 27. The step rise will be between 75mm and a maximum of 150mm, with a minimum going of 280mm. The overall rise of any flight will not exceed 1800mm.

INSULATION :

Ground floor - 150mm quilt on pvc netting between joists.

External walls - Frametherm 35 insulation batts fitted between studwork. Fix on the inside of the frame 50mm PIR / PUR rigid insulation board.

Intermediate floors - 100mm sound insulating quilt laid between floor joists.

Partitions - 100mm sound insulating quilt fitted between studwork.

Roofs - 70mm PIR / PUR rigid insulation board fitted between rafters from wallplate to above the level of the quilt. 300mm quilt laid over the complete ceiling area, in three 100mm layers. The first layer is to be laid between the ceiling joists, with the following layers laid at right angles over the joists.

Insulation material to be fixed / laid without gaps. Insulation to overlap with adjacent elements to eliminate cold bridging.

INTERNAL LININGS :

External walls - 12.5mm Gyproc Duplex plasterboard.

Intermediate ceilings - 15mm Gyproc plasterboard.

Partitions and ceilings - 12.5mm Gyproc plasterboard.

In bathrooms and shower rooms, plasterboards to be of the moisture resistant type.

Boards to be fixed with drywall screws into the supporting studwork. Fix through insulation boards where appropriate. Screws at maximum 200mm centres, with a minimum 25mm penetration into the timber. Dwangs to be provided to support the edges of all boards less than 15mm thick. Boards for tiling to have supports at maximum 600mm centres in both directions.

Fix thin coat galvanised m.s. beads to all external angles. Scrim all joints and internal angles. Finish all boards with skim coat of Thistle Multifinish.

STAIRCASE :

Staircase to be constructed and installed as shown on the plans, in a single straight flight. Width over strings will be 900mm. Strings and treads in redwood and risers plywood. Maximum pitch of stairs to be 42 deg., with a maximum rise of 220mm and a minimum going of 220mm; 2R + G to be between 550 and 700mm. Minimum headroom above the stair and landing to be 2m, measured vertically of the pitch line. Handrail to be provided continuous one side of the stair 900mm high. Balustrading constructed to prevent the passage of of a 100mm sphere. Provide top and bottom landing, with a length equal to the width of the stair, and an unobstructed length clear of door swings of 400mm.

Extractor fan; duct to outside air via wall grille of slate / tile vent.
Smoke detector.
Heat detector.
Carbon monoxide detector.

Detectors to be mains operated and interlinked.

FOUNDATIONS :

Site preparation - Strip and remove all vegetation and top soil.
Carry out further excavation to reduce levels to the required formation levels for the house and the garage.

Excavate for and lay concrete strip foundations below external walls and loadbearing partitions as indicated on the drawing. Foundations to be 600x225 generally, 600x150 below partitions. Steps formed as required to suit site levels as shown on the section, with a rise n.e. the foundation thickness and a minimum overlap of 450mm. Foundations to be a minimum of 600mm below finished ground level.

SUB-STRUCTURE :

External walls built of foundation in 262mm overall cavity blockwork to wallplate / ground levels. Fill cavity with concrete to 225mm below lowest dpc, or build with trenchblocks. Provide air bricks around the perimeter, 225x75 with liner through cavity. DPC apron installed above.
Loadbearing partitions built off foundation to wallplate in 100mm concrete blockwork.
100mm oversite concrete laid over complete area of house, on Type 1 sub-base well consolidated. Fill around foundations to be sub-base. Top of oversite concrete to be no lower than adjoining ground level.
Intermediate sleeper walls built off oversite to wallplate. Sleeper walls built 'honeycombed' to provide through ventilation to underfloor space.

Install pvc ductwork for electricity and water services in each dwelling in positions shown, or as agreed on site. Water duct to have a minimum of 750mm of cover,

GROUND FLOOR :

Horizontal dpc to be laid on all walls below 95x45 wallplates.

Ground floor structure to consist of 145x45 C16 joists at maximum 600mm / 400mm centres as shown. Additional joists to be installed below partitions parallel to the span. Double end joists provided parallel to the span, and header joist at right angles to the span, as shown on layout drawings. Header joist fixed to joists with 3no 100mm ring shank sheradised nails. Nail joists together at overlap. Full depth strutting to be provided in the centre of each span.

PVC netting to be draped over the joists. Fill between joists with 150mm insulation quilt. Fully fill all spaces to the full depth of the joists.

Lay over the full area, extending below the wall panels to the outside of the joists, 22mm M.R. t&g chipboard flooring. Floor panels are to have joints glued, and be glued to joists. Nail to joists with 4no nails per panel per joist.

DRAINAGE :

Excavate for and lay separate foul and surface water drainage as shown on the layout drawing. Drainage systems to be connected to existing 'tails' from public sewer.
All drains to be laid on a bed of 10mm pea gravel and backfilled to above the crown with the same. Drains within 1m of the foundations to be surrounded with concrete to the underside of the foundation; where more than 1m away the concrete surround is to be the same distance below the foundation as the distance away less 150mm.
Termination for foul drains to be in position shown on the drawing, with a 90 deg. bend and raising piece to above floor level for connection by plumber. Back inlet trapped gully where indicated.
Termination for surface water drains to be at downpipe positions shown. Set 90 deg. bend, raising piece and adaptor to downpipe.
Include for all pipe, couplings, bends, branches, adaptors, access fittings and the like to complete the installation as shown.
Allow for all testing of the completed installation to the satisfaction of building control.

INTERMEDIATE FLOOR :

Floor to be constructed within the attic trusses, with perimeter rim board, stair well trimming, partition supports, ironmongery, etc. Floor system to be designed and certified by the roof manufacturer.
Typical joist depths will be 240mm x width as designed.
Trussed attic rafters/ floor joists at maximum 600mm centres, stair trimming as indicated, additional joists below partitions,
Refer to manufacturers layouts and standard installation details.

22mm M.R. t&g chipboard flooring over the complete floor areas including under perimeter wall panels. Glue joints and glue and nail to joists; 65mm ring shank nails, 4no per board per joist.

100mm sound insulating quilt to be installed between joists.

15mm plasterboard ceilling fixed to the bottom flange of the joists, set out at right angles to the span. Fix with drywall screws at 200mm centres. Screws to have a minimum 25mm penetration into the joists. Finish with plaster skim coat.

INTERNAL DOORS :

Internal door style as chosen. Doors will generally be 1981x838 on the ground floor and 1981x762 on the first floor, or as noted on the plans. Doors to be hung in ex. 25mm redwood linings, or ex. 38mm redwood frame where located in double leaf wall. Include hinges, latch, handles, stops and architraves. Bathroom doors to have privacy lock with external release. Wardrobes to have hardwood thresh with top and bottom roller catches.

FITTINGS AND FINISHINGS :

Construct pipe boxings behind sanitary ware, or full height at showers and pipes, as shown on the drawings. Frame with 45x45 treated timber and face with 12.5mm M.R. plasterboard, finished as elsewhere or tiled as chosen. Fit M.R. mdf tops, painted or tiled as chosen.
Fit 25mm M.R. mdf sill boards to all windows. Front edge and returns to be rounded.
Fix throughout,95x14 redwood skirting, with matching 70mm architraves around both sides of doors.
Fit shelves in cupboards and wardrobes as shown. 18mm mdf shelves with centre support where exceeding 900m wide, on 45x20 redwood wall battens. Hanging rail to be provided in wardrobes.

INTERNAL ACCESS :

The minimum clear width of doors to habitable rooms and bathrooms / wc on the ground floor to be 750mm with head on access from a passage at least 900mm wide. Where access to a room is not head on, the door / passage widths are to be -

750mm door	1200mm passage
775mm door	1050mm passage
800mm door	900mm passage

(Note, a standard 838mm wide door will provide a clear width of 789mm).

Obstructions such as radiators up to 2m long will be allowed in passages subject to a minimum width on 750mm, but not opposite doors.

Disabled wc provision to be made on the principal storey. Minimum width to be 900mm, with an outward opening door and 750mm clear in front of wc.

MEANS OF ESCAPE :

Habitable rooms on the ground floor (not kitchens or bathrooms) to have access to the outside via a hallway. If not they are an inner room and require an emergency egress window.
All habitable rooms on the first floor (not kitchens or bathrooms) to have an emergency escape window and access to a staircase leading to the outside.
Where emergency escape windows are required they are to comply with AD B1, 2.11. Minimum opening area to be 0.33m2 with neither the width or height less than 450mm. The sill height from the floor to the opening part of the window is not to be more than 1100mm.

VENTILATION :

Purge ventilation is to be provided to all habitable rooms, capable of providing a minimum of 4a.c.h. This will be achieved through opening windows and doors opening to at least 30 deg, with an opening area of at least 1/20th of the room floor area,

Intermittent ventilation to be provided by mechanical ventilation in the following rooms at the minimum rates set out In AD F, table 5.1a -

Kitchen	30l/s in a cooker hood (otherwise 60l/s)
Bathrooms	15l/s
Shower rooms	15l/s
Sanitary accommodation	6l/s (where no opening window)

In rooms without an opening window, fans to be controlled through the light switch and will be provided with a timed over-run.
Fans selected to suit the location and to achieve the above performances taking into account any connected ductwork. The installed fans to be commissioned by the installer, with flow rates measured and the required notice submitted to building control.

Background ventilation to be provided by controllable trim vents fitted to the window heads in all rooms. The total equivalent ventilation area to be as set out in AD F, table 5.2a. At least 5,000 mm2 must be provided in each habitable room and 2,500 mm2 in each wet room. Ventilators to be installed at least 1.7m above floor level, and a minimum of 0.5m from fans.

AMENDMENTS

PROJECT:

PLOT 1
83a MAIN STREET
LOWICK
TD15 2UD

CLIENT:

G.M. CRAIG BUILDING CONTRACTOR

TITLE:

FLOOR PLANS

ROBERT J. HALES LIMITED

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