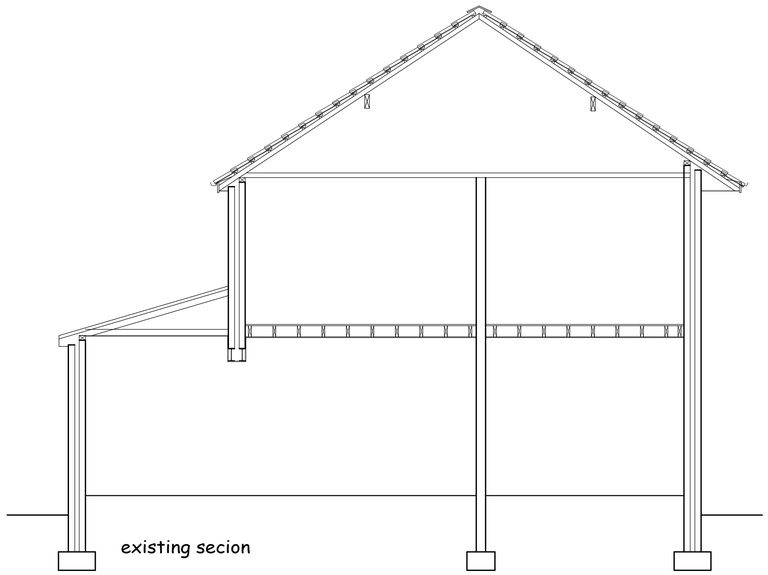

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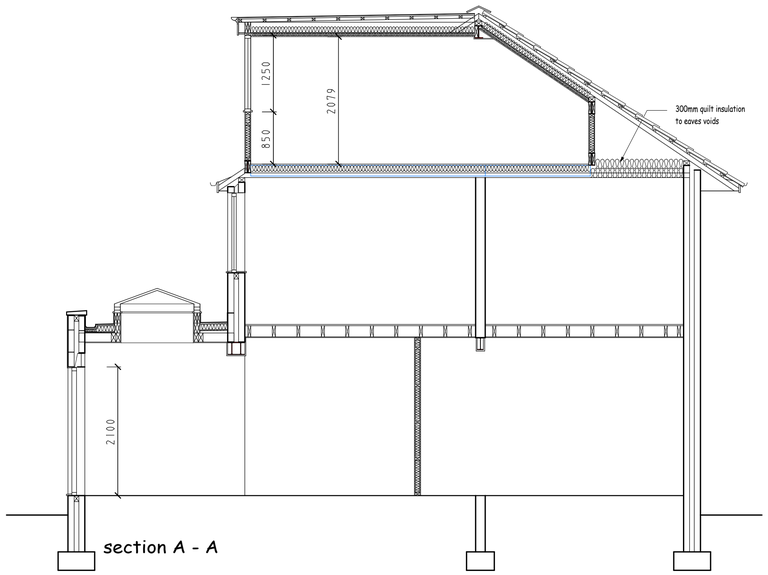
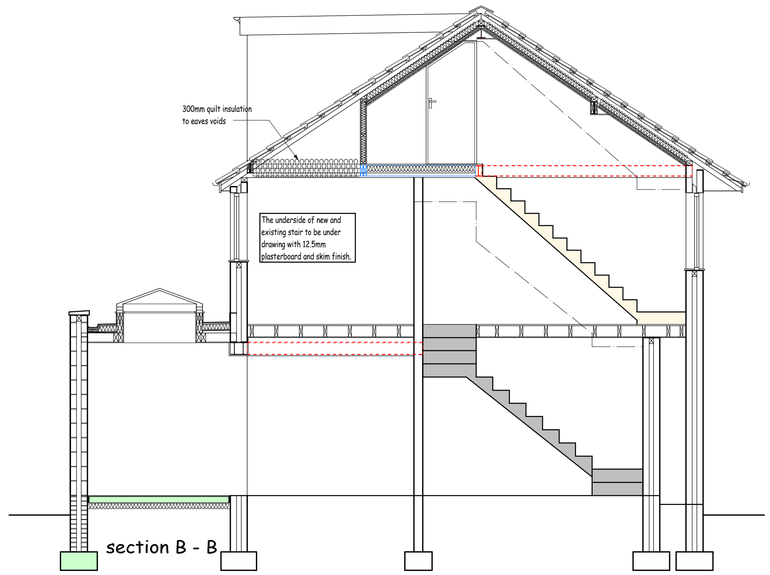


section A - A



section B - B

Foundations:
600 x 300mm concrete trench fill taken down to firm bearing strata at min 900mm below ground level. Foundations to be taken down to invert of any drain within 1000mm of excavation.

Drainage:
All new drainage to be 100mm diameter Polypipe Underground or similar drainage system. Pipes laid to self cleansing fall on 150 bed pea shingle. New gullys to be roddable with connection to existing drain. Pipes passing through footings to be bridged using pre-stressed concrete lintols. All new drainage passing under new extension to be encased in minimum 150mm concrete.

Drainage
All gullies to be back inlet & roddable waste to discharge below grating but above water line.
Rainwater to be min 100mm gutters to 75mm rwp's installed to manufacturers recommendations
Drainage/appliances to have min 38mm dia waste pipe with re-sealing anti-vac trap combined waste to be min 50mm
No opposed waste connections to be made within 200mm of WC connection

Ground Floor Construction: (Rear extension and Porch)
18mm asphalt screed on 100mm concrete slab on visqueen on 110mm Celotex XR4000 or equivalent floor insulation on 1200 gauge DPM lapped into DPC on 25mm sand blinding on consolidated hardcore. Provide 25mm ridged insulation to the edge of slab. Provide 100mm dia duct pipe through to air bricks with cavity trays over to vent any exg air bricks. If GL to FLL is over 600mm refer back to designer and change to timber floor.

Flashings:
Code 4 lead stepped and straight flashings with DPC cavity trays over at all abuttments.

Partitions:
Partitions to first floor level formed in 75 x 50mm studding at 400 centres with 9.5mm plasterboard and skim finish both sides. Double joists under all partitions running in direction of joists. All walls between WC & habitable rooms to have 50mm sound deadening insulation between.

External Walls render: 0.28 'U' Value required Rear extension)
Smooth render finish (K-rend or similar) on 100mm concrete blockwork outer leaf
100mm cavity with full fill cavity wall batts - 100mm thermolite block - 0.15w/mk inner leaf dry lined in 12.5mm plasterboard and skim on Drywall dabs. Stainless steel double triangle wall ties (min 59mm embedment) 750mm horizontal c/c & 450 vertical c/c staggered and doubled up at all window and door reveals. Cavities to be closed at all reveals and at eaves - using Thermabate insulated cavity closers. NB all masonry below ground level to be in concrete common brick. DPC to be fixed at min 150mm above ground level. Provide cavity fill to 225mm below damp proof course.

Flat Roof: New GRP finish to flat roof on 12mm external grade ply. 120mm kingspan insulation vapour control layer on 18mm sterling board over sw firrings. Main flat roof joists @ 400mm centres. Joists hung from new timber pole plate on timber to timber joist hangers - fully nailed. Spanning accross onto sw wall plate. 12.5mm plasterboard and skim finish to the underside.

Lighting:
One third of the primary light fittings in the proposed extension (minimum one) to be of a type which will only receive high efficiency lamps.

Doors and Windows:
All new windows to be double glazed and have trickle vents not less than 8000mm2. All windows ojoining a door or a glazed door or less than 800mm above floor to be in toughened glass to BS6206 or EN12150. New and replacement windows and roof lights fully draught proofed & double glazed in Optiwhite (outer pane) 20mm argon filled air space with aluminium spacer bar with an inner pane of low emissity 'k' glass to give a 'U' value of 1.8w/m² or window energy rating band C certificates of compliance to be provided to building control on completion. New windows to habitable rooms without alternative at least 1no opening light with a clear opening of 450 x 750mm. Top hung Windows to have assist arms and stays to keep up.

Lintels over openings type to be suitable for loading configuration & span, install d.p.c. cavity tray over with stop ends & weepholes at max 900mm c/c. Min 2 per cavity tray. All to be encased in plasterboard to give half hour fire protection.

Any new gas boiler to be min 90% SEDBUK condensing wall mounted with balanced flue/stainless steel guard to outlet. Flues discharge in accordance with manufacturers instructions & to Building Regulations ADJ. Copy of the Building Regulations Compliance Certificate from your GAS SAFE installer to be provided. All new radiators to be provided with thermostatic valves.

First Floor Construction:
22mm tongue and groove moisture resisistant flooring grade chipboard or softwood floorboards to clients discretion on 150 x 50mm joists @ 400 centres 100mm quilt insulation between floor joists Provide 2No. Rows of herringbone strutting at third span of joists. Underdraw joists in 12.5mm plasterboard and skim. NB. Minimum board weight 10kg/m2. Provide lateral restraint straps at 2m centres with associated noggins.

Self-contained mains powered smoke detectors (rechargeable battery backed up) in accordance with BS5839-6: 2004 - Grade D - category LD3 standard to be provided to each level as indicated by 'SD' on floor plans. All alarms to be interlinked and wired to separate sub circuit on mains distribution board. Smoke alarms to be situated within 3.0m of bedroom doors and 7.5m of all other habitable rooms. NOTE - all smoke detectors are to be positioned so that they can be reached for maintenance and testing i.e. not over stairs etc.

APPROVED DOCUMENT L1 (2005)
From the 1st April 2005. All new and replacement natural gas and LPG boilers are required to have a minimum SEDBUK (Seasonal Efficiency of Domestic Boilers in the UK) rating of 90% Exceptional Circumstances permitting the installation of a Non-Condensing boiler. The installer must complete an 'Assessment form' using the procedure described in the document 'Guide to the Condensing Boiler Installation Procedure for dwellings' (ODPM 2005) The declaration should be retained by the householder as it may be needed when the property is offered for sale.
All electrical work required to meet the requirements of Part P (electrical safety) will be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Local Authority must be satisfied by either:-
An electrical installation certificate issued under a Competent Person Scheme has been issued; or Appropriate certificates and forms defined in BS 7671 (as amended) have been submitted that confirm the work has been inspected and tested by a competent person. A competent person will have a sound knowledge and experience relevant to the nature of the work undertaken and to technical standards set down in BS 7671, be fully versed in the inspection and testing procedures contained in the regulations and employ adequate testing equipment.

Ventilation:
Unless otherwise stated, room ventilation will be provided by natural means. Windows to incorporate; opening lights at least equal to 1/20th floor area, along with controllable trickle vents with an equivalent area of 5,000mm2.
Where opening restrictors are to be provided the opening lights to be increased in size to 1/10th of the room floor area. Wet room areas to be afforded mechanical extract ventilation using the following extract rates:
Kitchen 30 Litres/sec (adjacent to the hob)
60 Litres/sec elsewhere
Utility Room 30 Litres/sec
Bathroom 15 Litres/sec
Sanitary accommodation 6 Litres/sec.
In addition, controllable trickle vents with equivalent area of area of 2,500mm2.
All extracts to open air.

Existing Rafter Treatment (to be checked and upgraded if required):
Batten out existing rafters to 150mm deep. - fix 100mm Celotex insulation tight between rafters ensuring 50mm air space is maintained over insulation. Fix 45mm Celotex T-breakTB3045 insulation across rafters to eliminate cold bridging - 500 gauge visqueen vapour barrier over insulation - fix 12.5mm plasterboard through insulation to rafters using galvanized nails and finish with 3mm plaster skim. NB Existing purlins to be retained or replaced.

Loft Floor: exg ceiling to remain. New floor 22mm tongue and grooved floor decking to be laid over new sw floor joists. Joists to be sat down between existing ceiling joists with 25mm gap between the existing plasterboard ceiling and new joist. Floor joists supported on Steel beams designed by SE. Joists on floor trimmers fixed using timber to timber joist hangers - fully nailed. Joists to be doubled up under all internal partition walls. 100mm Rockwool quilt laid between on Netlon mesh. Provide herringbone strutting at mid span of floor joists.

New Staircase risers at max 220mm - goings in straight flight min 220mm. Maximum pitch 42deg with minimum head height of 2000mm measured vertically off pitch line. Handrails fixed at 900mm off pitch line throughout flight. Balustrading to be fixed around stairwell @ loft floor level @ 900mm above floor - vertical spindles @ max 100mm centres. Stairs to be underdrawn in 12.5mm plasterboard and skim.

New roof Construction (LOFT): Remove existing section of roof structure back to where hips meet the ridge. Provide new steel ridge beam on concrete padstones to SE design. Install new 150x50mm sw rafters to new gable wall supported at mid span with new steel purlin design by SE. Roof tiles to match the existing on 38 x 25mm tanalised battens on Du Pont Tyvek breathable roof membrane (ensure breathable felt system is installed & vented in strick accordance with manufacturers recommendations) Vaulted Section Provide 100mm Cellotex rigid board insulation tight between rafters and rafters underdrawn in 45mm Celotex T-breakTB3045 across rafters. 12.5mm plasterboard fixed through insulation and finished with 3mm plaster skim.

Low Walls: Low walls below purlin formed in 100 x 50mm studding at 400 centres - 65mm Celotex tuff-R GA3065 insulation between studs flush with back of studs, fix celotex T-break TB3012 over the inside face of studs. The joints of the insulation are then taped using a self adhesive aluminium foil tape and the perimeter sealed with mastic to provide a vapour control layer. Fix 12.5mm plasterboard and skim finish.

Partitions: Partitions at loft floor level formed in 75 x 50mm studding at 400 centres with 12.5mm plasterboard and skim finish both sides. Double joists under all partitions running in direction of joists. All walls between WC & bedrooms to have 50mm sound deadening insulation between.

Structural Steel: All structural steel to be encased in a minimum 18mm Gypsum plaster to give minimum half hour fire protection.

Check existing floors where under the stair escape routes. Upgrade as found to be necessary via overboarding with 12.5mm fireline board & skim, architraves and skirtings adjusted to suit (room side). ALL existing doors onto hallway at ground and first floor to be removed, new half hour fire door ((FD20) to be installed with new frames. NO glass to fire doors.

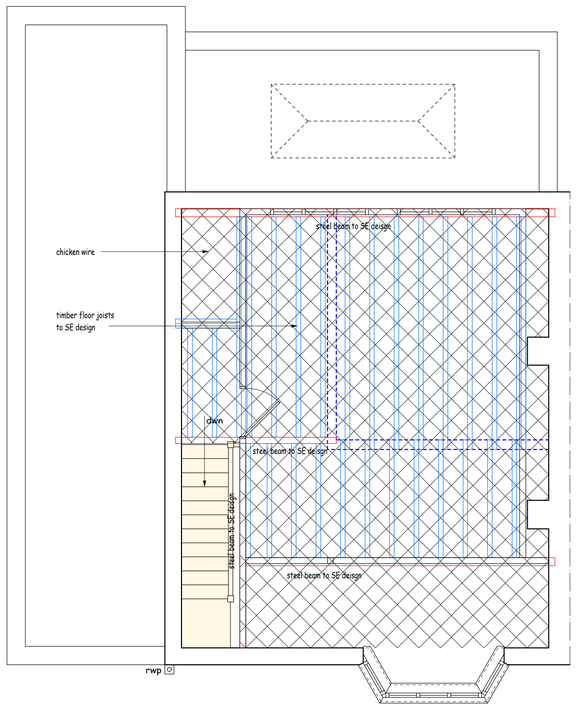
All stair enclosure walls to be checked for half hour fire resistance - expose on site for BCO inspection. Upgrade as found to be necessary via overboarding with 12.5mm fireline board & skim, architraves and skirtings adjusted to suit (room side).

Plumbing to new bathrooms:
WC to have 100mm connection to soil pipes.
bath, shower to have 75mm deep seal anti vac traps with 38mm diameter wastes
basin to have 75mm deep seal anti vac trap with 32mm diameter waste.
NB combined wastes minimum 50mm diameter.
All wastes bossed on to existing soil pipe.

Main Roof Construction two storey extension:
Roof tiles to match the existing on
38 x 25mm tanalised battens on Du Pont Tyvek breathable roof membrane (ensure breathable felt system is installed & vented in strick accordance with manufacturers recommendations) on 150x50mmsw rafters, 100x50mm sw ceiling joists both at 400mm c/c. 275x75mm sw hip rafters. 100 x 75 wall plates bedded on and strapped to blockwork @ 2000mm centres. 300mm Rockwool insulation laid in 2no layers between and across ceiling joists - pack eaves with insulation. Ceiling joists underdrawn 12.5mm plasterboard and skim.

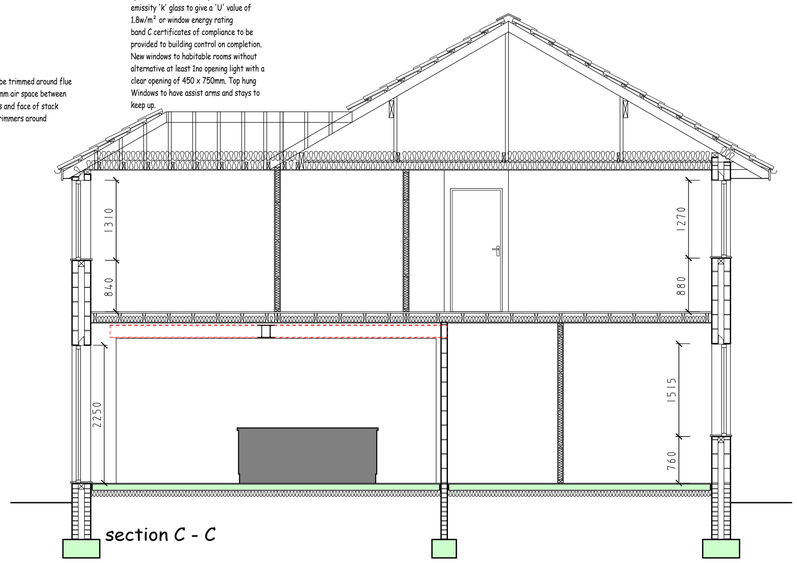
Flat Roof: New GRP finish to flat roof on 18mm sterling board decking on firrings to fall on main roof joists @ 400mm centres. Joists hung from new ridge beam on timber to timber joist hangers - fully nailed. 100mm Celotex tuff-R GA3100 insulation between joists with 35mm Celotex T-Break TB3035 insulation below on 500g visqueen vapour check with 12.5mm plasterboard and skim finish. 25mm. softwood fascia boards all round with min 25mm fly screened gap between fascia and tiles.

Dormer Walls: Plain concrete tile hanging on 38 x 25mm treated battens over YBS insulation Breather Foil FR stapled to 11mm sterling board sheathing on 100 x 50mm treated studding @ 400mm centres - 100mm Celotex RXR insulation fixed tight between studs with 500g visqueen vapour check and 12.5mm plasterboard and skim finish internally. Front wall built off wall plate cheeks built up off dividing wall. 150 x 100mm lintols over window opening supported on cripple studs.Code 3 lead flashing under fascia, above and under windows. Code 4 lead soakers and flashings to front wall and cheeks. N.B. Dormer cheeks to have 2 layers of 9mm firmacel fire resistant board over 11mm sterling board sheathing and 2 layers of 12.5mm plasterboard and skim internally.



proposed loft floor plan

floor to be trimmed around flue - min 50mm air space between flue walls and face of stack double trimmers around



section C - C

This drawing has been prepared for the sole purpose of obtaining Planning Permission and Building Regulation Approval ONLY. All structural calculations are to be checked by structural engineer prior to construction.

All dimensions & details are to be check on site prior to construction, any discrepancies reported to ExtensionsNW prior to any work undertaken. Any work undertaken prior to full planning & building regulation approval is at the builders own risk. ExtensionsNW will not be held responsible for any problems arising.

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Plotted on 27/11/2018
ExtensionsNW reserve the right to modify and make necessary alterations dependent on site conditions.

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	DATE	

SCALE 1:50	DATE Nov 18
DRAWN JDJ	P.P B.R

CUSTOMER
Mr Lee Jones

PROJECT
Two storey extension, single storey extension and loft conversion

LOCATION
25 Worchester Road, Middleton. M24 1PA

LOCAL AUTHORITY
Rochdale BC

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