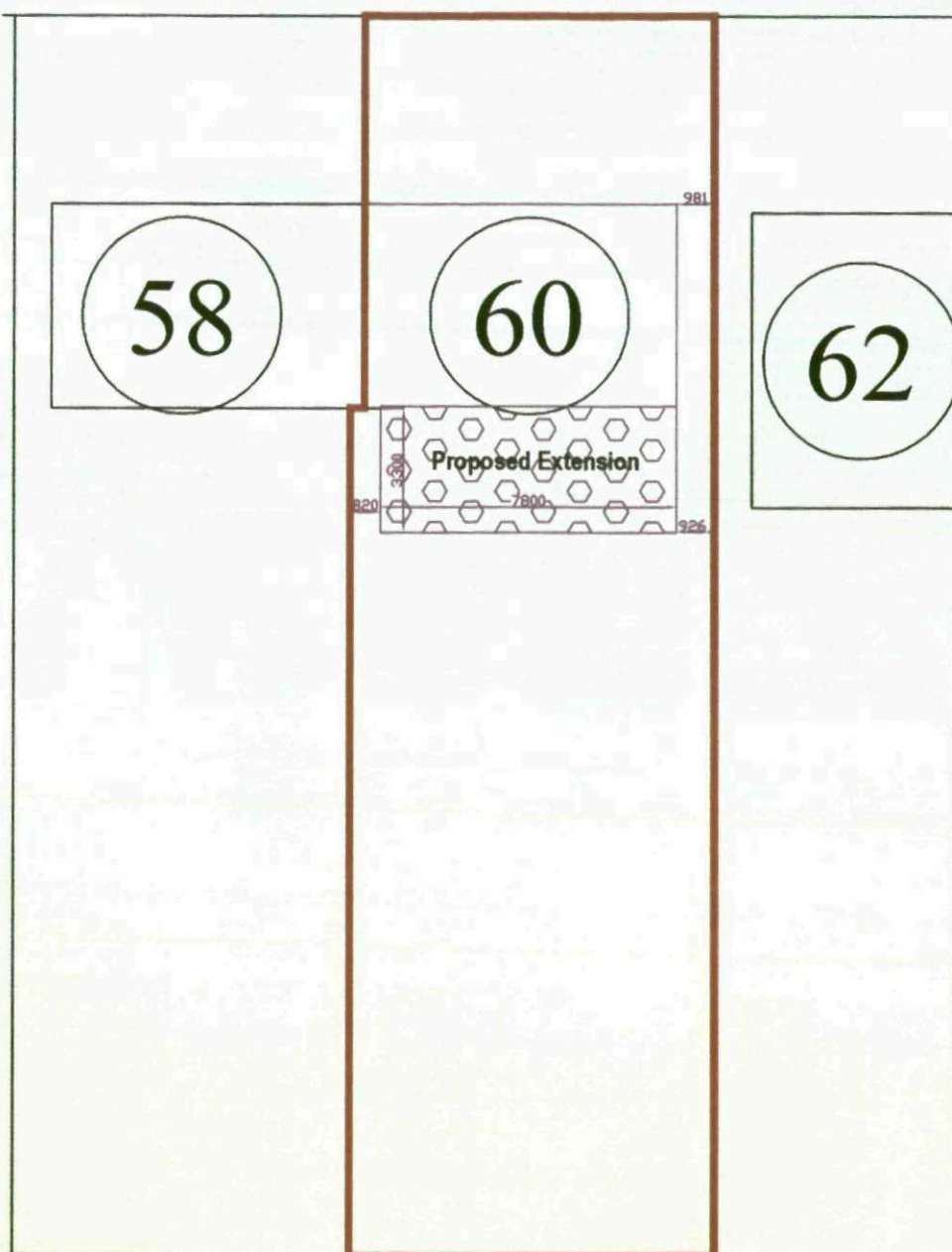
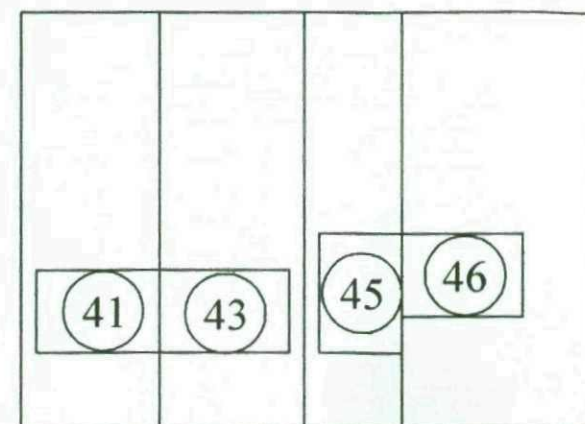


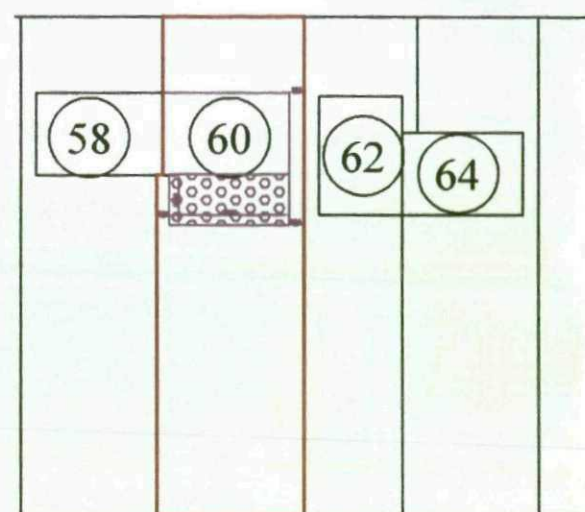
Tudor Street



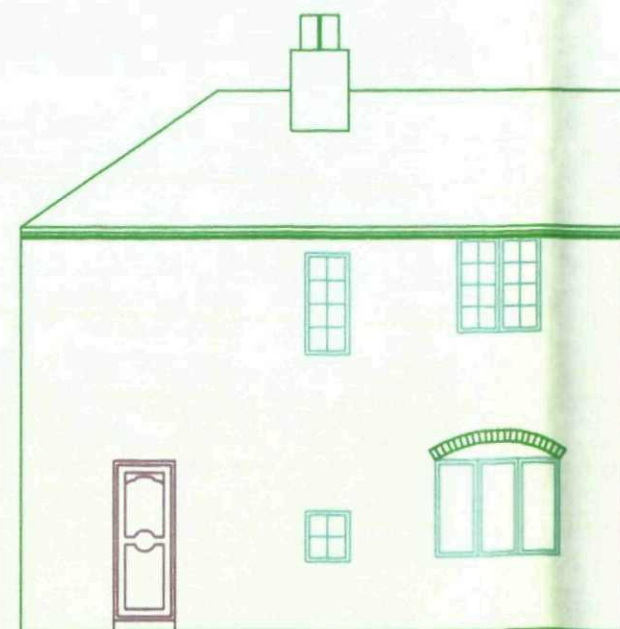
Block Plan 1:200



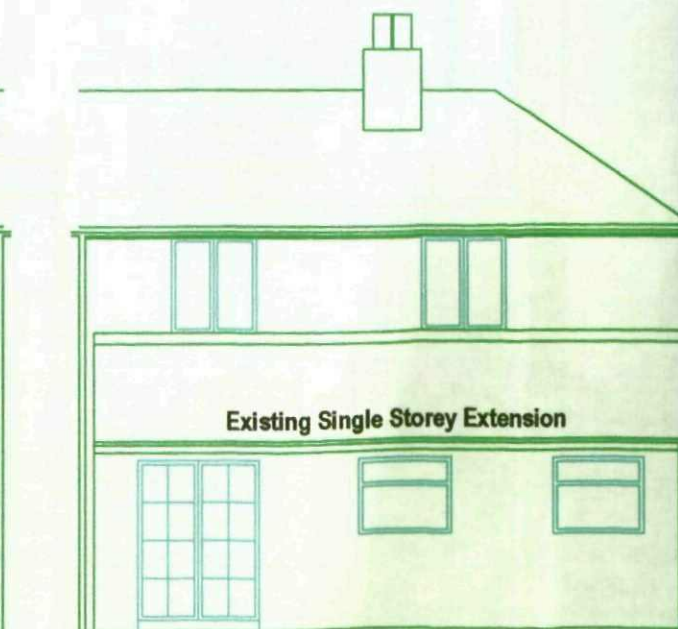
Tudor Street



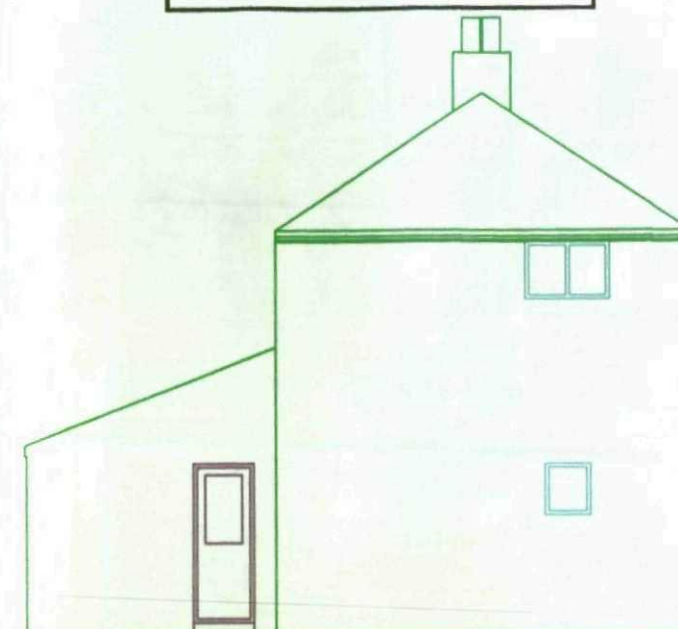
Block Plan 1:500



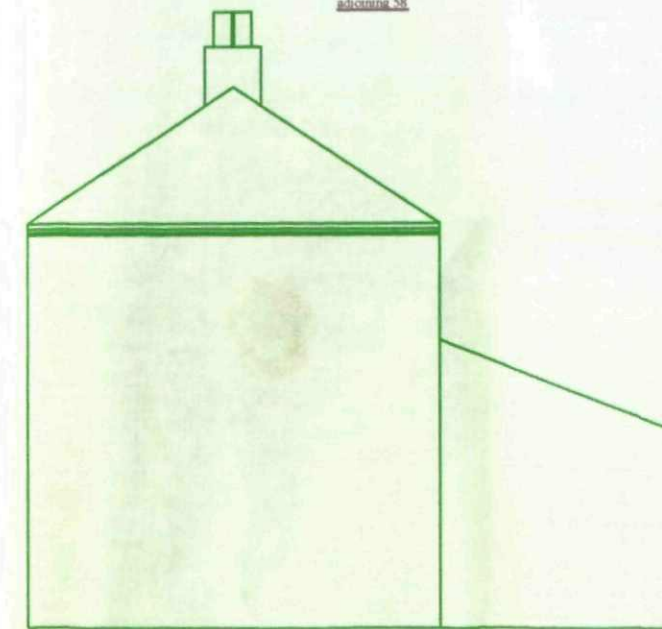
Existing - Proposed front elevation



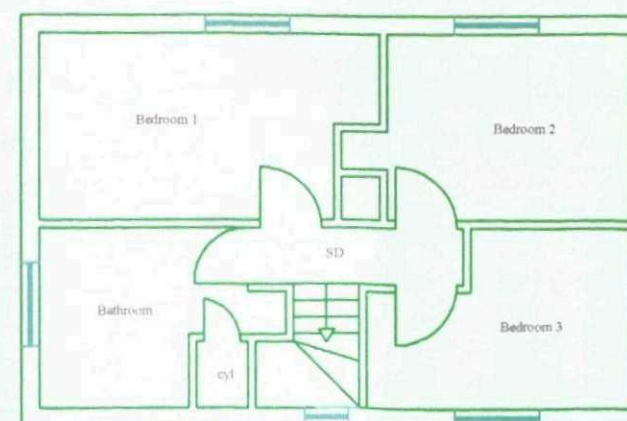
Existing rear elevation



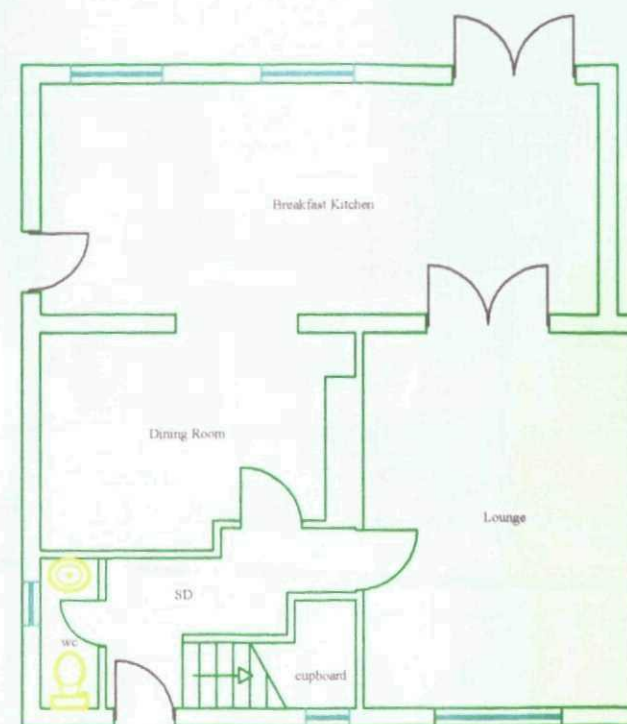
Existing side elevation adjoining 58



Existing side elevation adjoining 58



First Floor Existing



Ground Floor Existing
Unchanged by proposal

Location:
60 Tudor Street, Thurnscoe

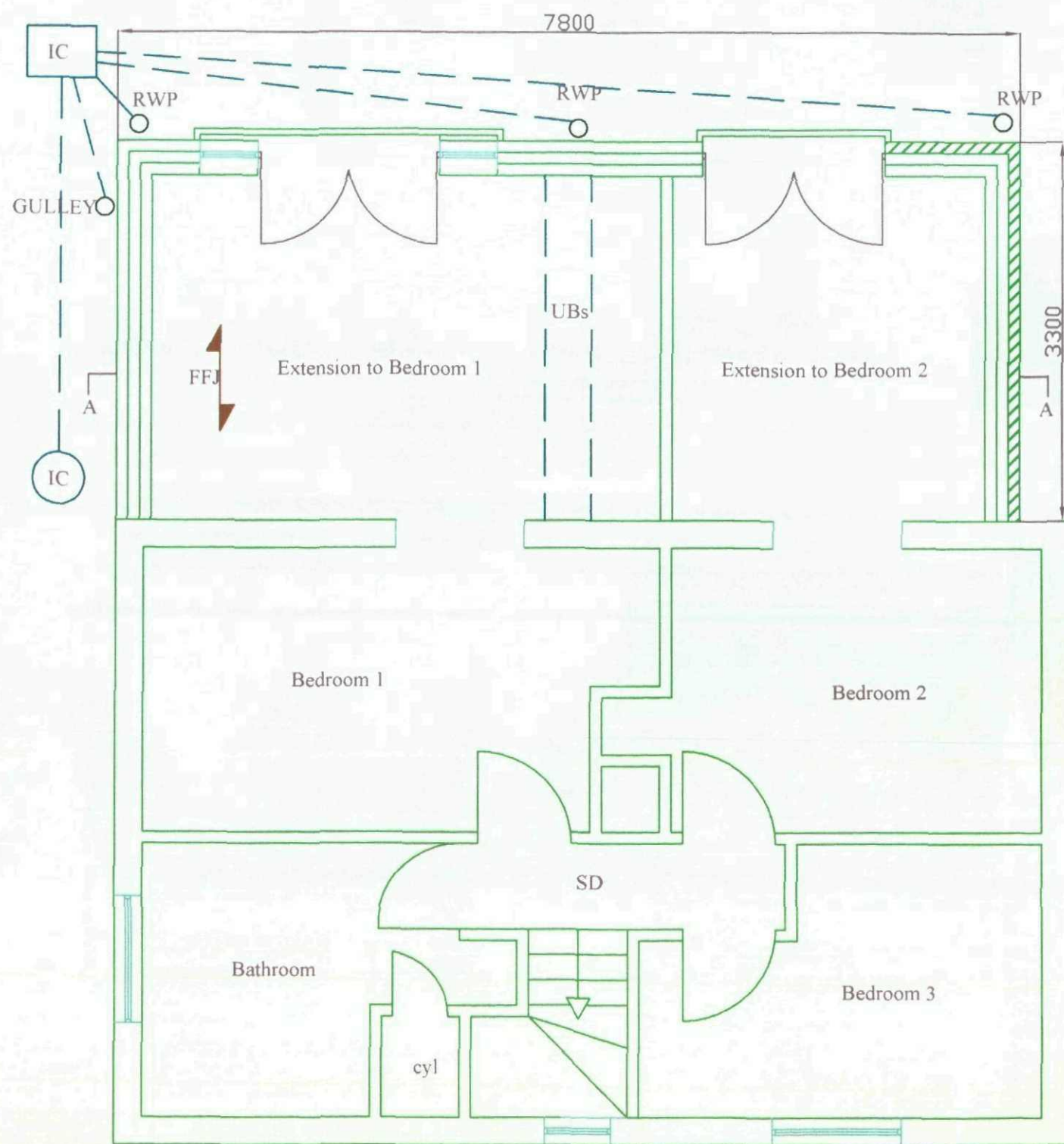
Project:
First Floor Rear Extension

Scale:
1:200, 1:500 & 1:100

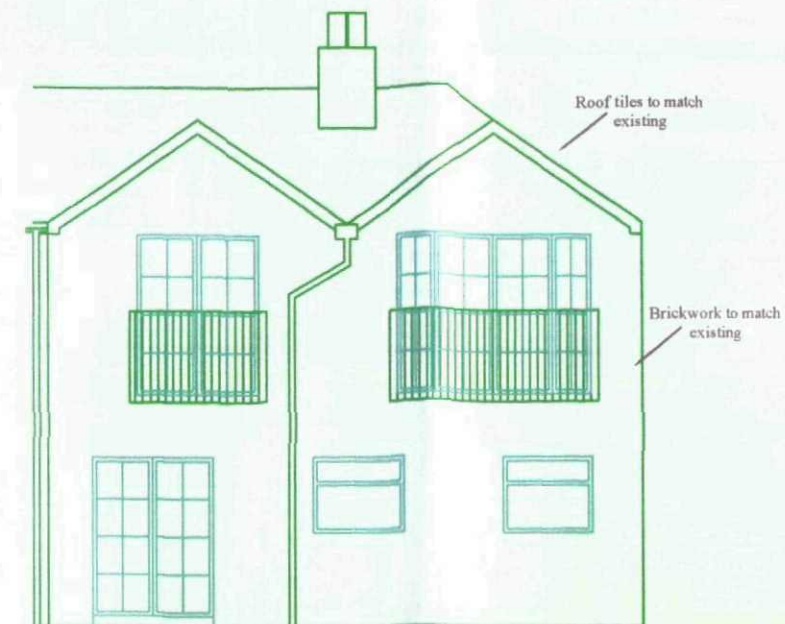
Date:
January 2009

Drawing No: 1

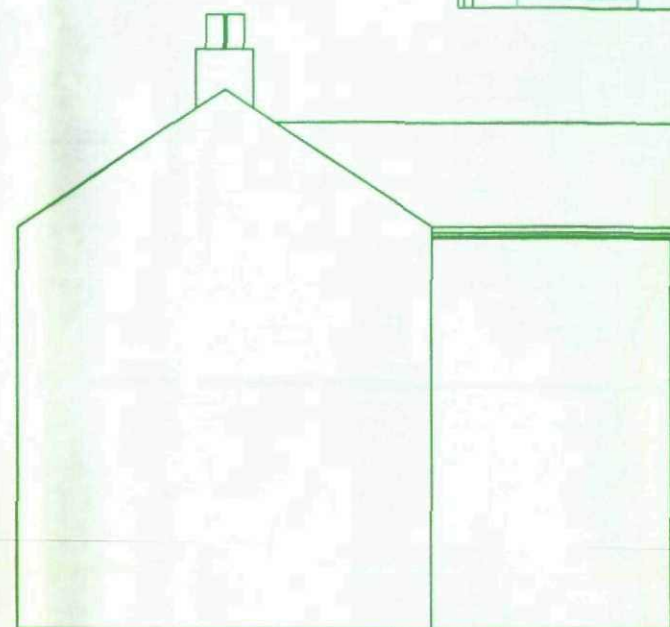
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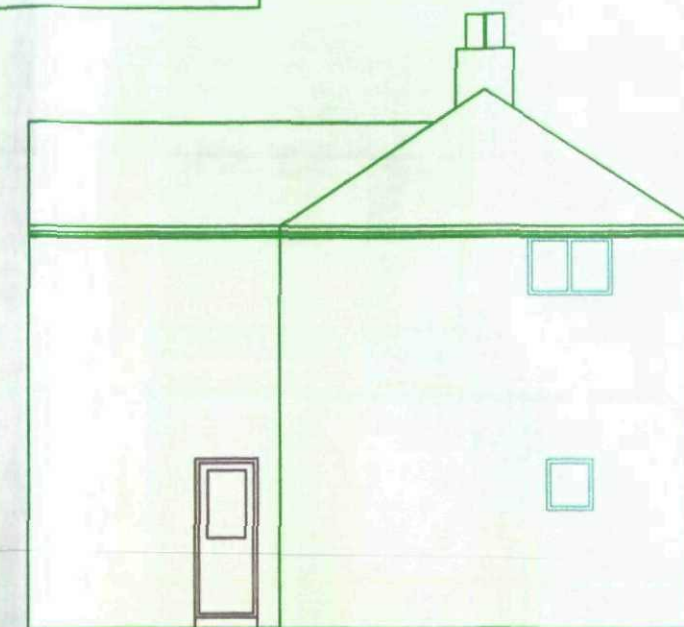
First Floor Proposed



Proposed rear elevation

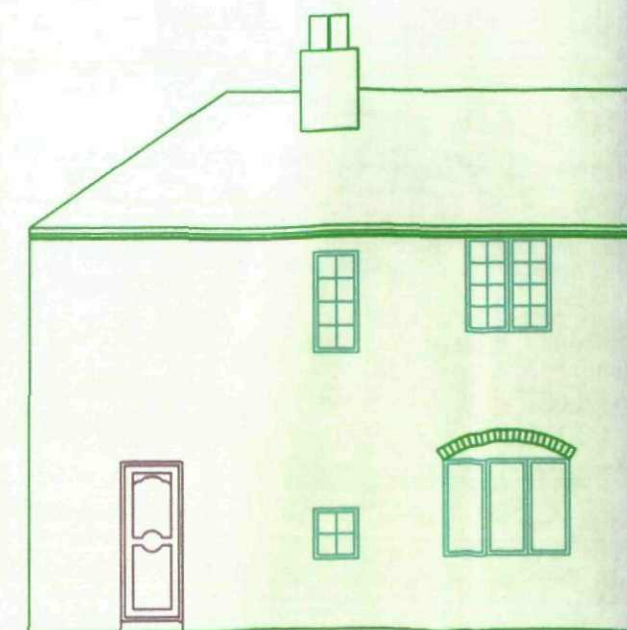


Proposed Side Elevation adjoining 58



Proposed Side Elevation

PLANNING CONDITIONS
The rear extension has been designed following Barnsley MBC supplementary planning guidance 4. The proposed extension will not overshadow the neighbouring property or garden given the path of the sun, in addition the extension will not project further than the rear elevation of number 62. The rear extension is also designed with a projection of less than 3.5m



Existing / Proposed front elevation

Location:
60 Tudor Street, Thurnscoe

Project:
First Floor Rear Extension

Scale:
1:50, 1:100

Date:
January 2009

Drawing No: 2

Rev:

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SPECIFICATION

FOUNDATIONS
Foundations to be exposed if required to satisfaction of building control.

WALL DETAILS
New wall construction to match existing, from existing plans a 50mm cavity, 102mm outer brick leaf, 50mm cavity filled with Dri-therm insulation, 100mm thermalite lightweight block inner leaf or similar with 37.5mm insulated plasterboard and 3mm skim finish. U value not exceeding 0.30. Reveals to doors and windows to be closed with Thermabate insulated cavity closers. Stainless steel vertical twist wall ties at 750mm centres horizontal, 450mm centres vertical and at every course at reveals. Furfix stainless steel profiles to be used to bond new brickwork/blockwork to old.

LINTEL SCHEDULE

Bedroom 1	Catnic CG50/ 100
Bedroom 2	Catnic CG50/ 100
Support to Roof	2no 152 x 89 x 16 UB

All lintels to be installed strictly to manufacturers recommendations with 150mm end bearing
UBs to be covered with 12.5mm plasterboard and skim to achieve 30 minutes fire resistance
Existing lintels to be exposed and check if required by building control.

FIRST FLOOR
22mm chipboard flooring on 175mm X 50mm SC3 Grade timber joists at 450mm c/c but at max 600mm/c. Existing ground floor ceiling to be salvaged by securing existing timbers to side of new floor joists. Joists doubled up under stud wall. Joists built into walls and silicone sealed for air leakage or fixed to 175mm x 50mm sole plate raw bolted back to existing walls at max 400c/c, then joist hangers fixed to this to secure new floor joists. Solid strutting at mid span. 100mm Rockwool between joists for sound insulation.

ROOF CONSTRUCTION
50mm x 100mm wall plate with 5mm x 30mm HD anchor straps. Either trussed rafters at 600mm c/c fixed in accordance with manufacturers instructions and braced to BS 5268-3, with lay boards placed over existing roof when tiles removed. Calculations to be provided to building control. Or traditional roof construction 100mm x 50mm rafters at 450mm c/c with 175mm x 50mm ceiling joists at 450 c/c. Concrete roof tiles to match existing and to suit pitch on 25 x 38 tile battens on Tyvec or similar breathable roofing felt fixed in accordance with manufacturers instructions. Roof insulation 200mm rockwool between ceiling joists with a further 100mm laid over the ceiling joists at 90 deg to achieve 0.16 U value. Roll panel ventilator and eaves support trays used at eaves and to ensure 50mm air gap between insulation and underside of felt. Fibreglass preformed valleys installed in accordance with manufacturers instructions. Alternatively lead valleys formed, to be lined out with WPB. Tapered gutter supported off steelwork lined with 18mm WPB Plywood, Code 5 Lead, max length of bay 1.5m 75mm deep to be minimum fall 1:80 all drips sealing and fixings to avoid risk from thermal movement. Work to be carried out by a qualified roofer. (Please refer to Lead Association specification sheet).

LATERAL RESTRAINT
5mm x 30mm HD anchor straps into blockwork provided at 90 degrees to first floor joists notched out to be fixed to 3no joists at maximum 2m c/c 5mm notched out of top of joists for flush finish. 5mm x 30mm HD anchor straps into blockwork to rafters up gables at max 2m c/c.

WINDOWS
New patio doors to be double glazed, white uPVC, soft-coat low-E units or similar Band D rated window, minimum clear opening to be 1/20th of floor space. U value not exceeding 1.80. Windows to be fitted with trickle ventilators to provide 8000mm2 air space. Any glazing to doors or within 300mm of a door below 1500mm from ground/floor level, or below 800mm elsewhere should be safety glazing to BS 6202. All safety glazing should be marked in a permanent manner which remains visible after installation (as per BS 6206, 1981) and should be visible on both glass panels in the case of multiple glazing units. Laminated glazing units should be marked with the BSI symbol and a recognised registration number.

FIRE PRECAUTIONS
Escape via new patio doors. Recommend mains wired interlinked smoke detection with battery back up to be provided to circulation spaces. Location on plan de-noted as SD but not required if no additional habitable rooms are created.

SURFACE WATER DRAINAGE
100mm half round / square guttering attached to fascia board at 900mm max centres to discharge to 68mm dia RWP, discharging to back inlet gully pot, discharging to existing drainage as shown on plan as no increase in roof area. Centre box gutter to discharge into rainwater hopper then downpipe as previously described.

MISCELLANEOUS WORKS
30% of new light fittings shall be capable of only accepting high efficiency lighting.

ELECTRICAL WORK
All notifiable electrical work is required to meet the requirements of Part P (Electrical Safety) and must be designed, installed, inspected and tested by a person competent to do so.

HEATING
Existing gas fire central heating system to be extended into new extension. All cold and hot water pipework to be insulated as per Part L. All current Bye Laws to be adhered to. All new radiators to be fitted with TRV's.

GUARDING TO BALCONY
Guarding design to clients choice but height to be 1.1m from finished internal floor level. Vertical bars not to allow a 99mm sphere to pass through. Guarding to be raw bolted back to wall to resist horizontal force given in BS6399: Part 1 1996.

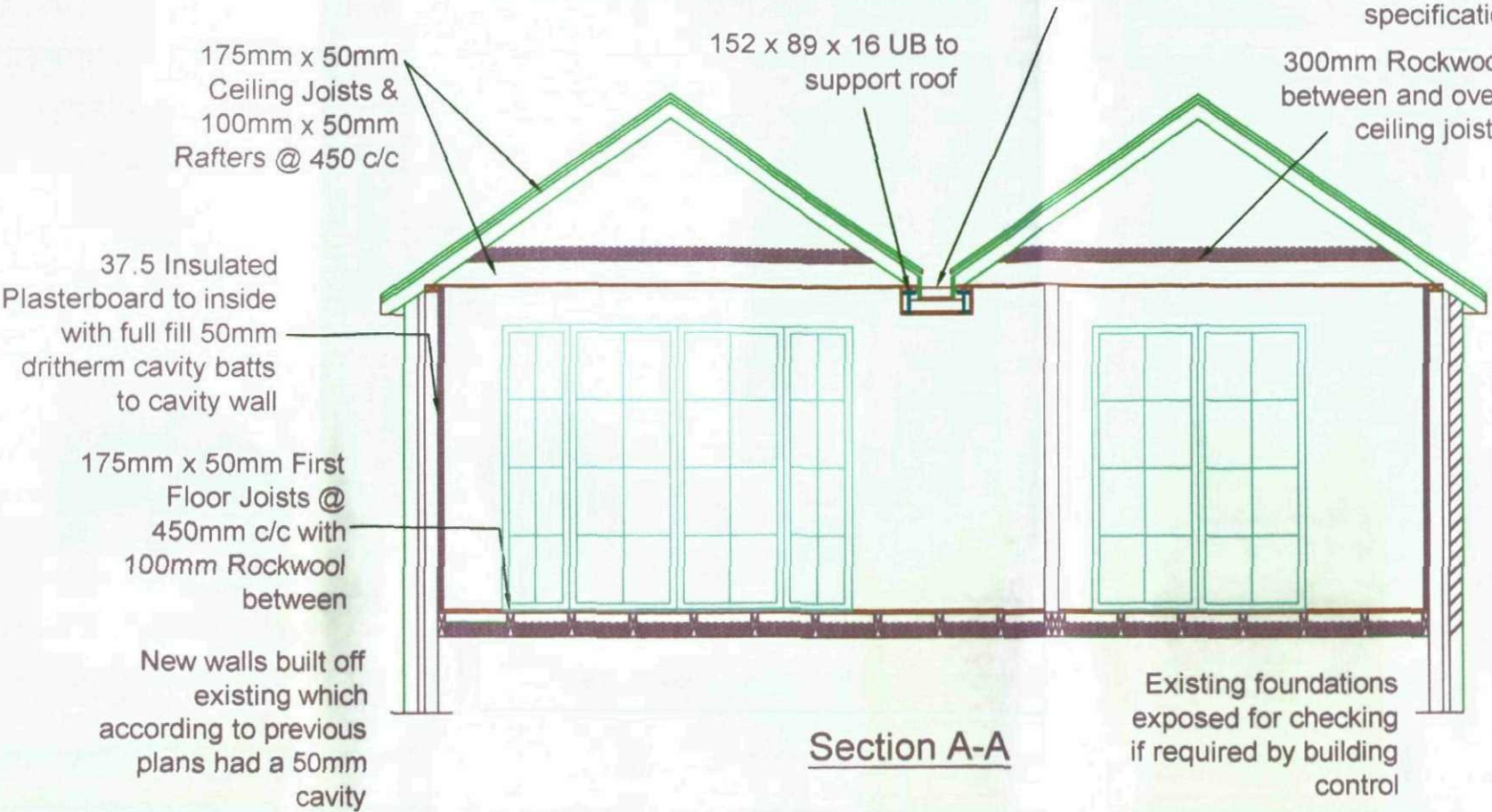
STUD WALL
100mm x 50mm timber stud wall filled with rockwool for sound insulation. 12.5mm Plasterboard and skim finish.

PARTY WALL ACT 1996
It is the property owners responsibility to serve all notices under the Party Wall Act 1996. Notice must be served to adjoining owners for any work that could affect them. For further detailed information download the party wall booklet from www.communities.gov.uk/documents/planningandbuilding/pdf/133214

NOTE:
It is the responsibility of the builder / owner to check dimensions on site.

PLANNING CONDITIONS
The rear extension has been designed following Barnsley MBC supplementary planning guidance 4. The proposed extension will not overshadow the neighbouring property or garden given the path of the sun, in addition the extension will not project further than the rear elevation of number 62. The rear extension is also designed with a projection of less than 3.5m

Tapered gutter lined with 18mm WPB Plywood, Code 5 Lead, max length of bay 1.5m 75mm deep to be minimum fall 1:80 all drips sealing and fixings to avoid risk from thermal movement. Work to be carried out by a qualified roofer. Please refer to Lead Associations specification sheet.



Beam: Beam 1 & 2

Load name	Loading w1	Start x1	Loading w2	End x2	R1comp	R2comp
U - Roof	2.2*2kn	0		L	6.60	6.60
U Ceiling	1.7*1kn	0		L	2.55	2.55
Total:					9.15	9.15

(Load types: U:UDL Load positions in m. from R1)

Maximum B.M. = 6.86 kNm at 1.50 m. from R1

Maximum S.F. = 9.15 kN at R1

Total deflection = 6.434 x 1e8/EI at 1.50 m. from R1 (E in N/mm² I in cm⁴)

Steel calculation to BS449 Part 2 using Grade 43 steel

SECTION SIZE : 152 x 89 x 16 UB

$I_{xx} = 838\text{cm}^4$ $r_{yy} = 2.10\text{cm}$ $Z_{xx} = 110\text{cm}^2$ $t = 4.6\text{mm}$ $D = 152.4\text{mm}$

$L_e/r_{yy} = 3.00 \times 100 / 2.10 = 143$ $D/T = 19.8$

$p_{bc} = 105.6 \text{ N/mm}^2$ (Table 3a)

$f_{bc} = 6.863 \times 1000 / 110.0 = 62.4 \text{ N/mm}^2$ OK

f_s (maximum shear in web) = $9.150 \times 1000 / 4.6 \times 152.4 = 13.1 \text{ N/mm}^2$ OK

Total deflection = $6.43 \times 1e8 / 205,000 \times 838 = 3.7 \text{ mm}$ (0.0012 L) OK

Bearing details

Factor reactions by 1.55 (user selected value)

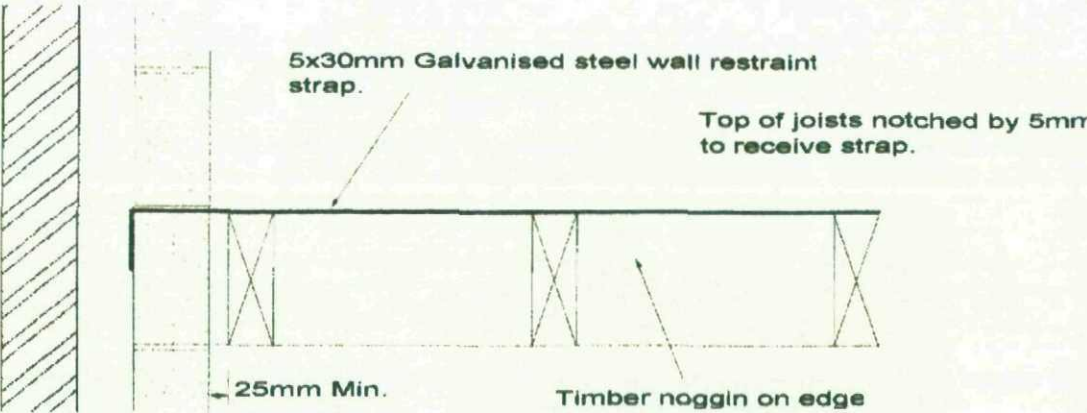
Local design strength of masonry (factored) = 0.700 N/mm^2 (user entered value)

R1 (9.15kN unfactored): Padstone size 203 x 100mm

Factored stress under padstone = $1.55 \times 9.15 \times 1000 / 203 \times 100 = 0.70 \text{ N/mm}^2$

R2 (9.15kN unfactored): Padstone size 203 x 100mm

Factored stress under padstone = $1.55 \times 9.15 \times 1000 / 203 \times 100 = 0.70 \text{ N/mm}^2$



Location:
60 Tudor Street, Thurnscoe

Project:
First Floor Rear Extension

Scale:
1:50

Date:
January 2009

Drawing No: 3

Rev: [] [] [] [] [] [] [] [] [] []