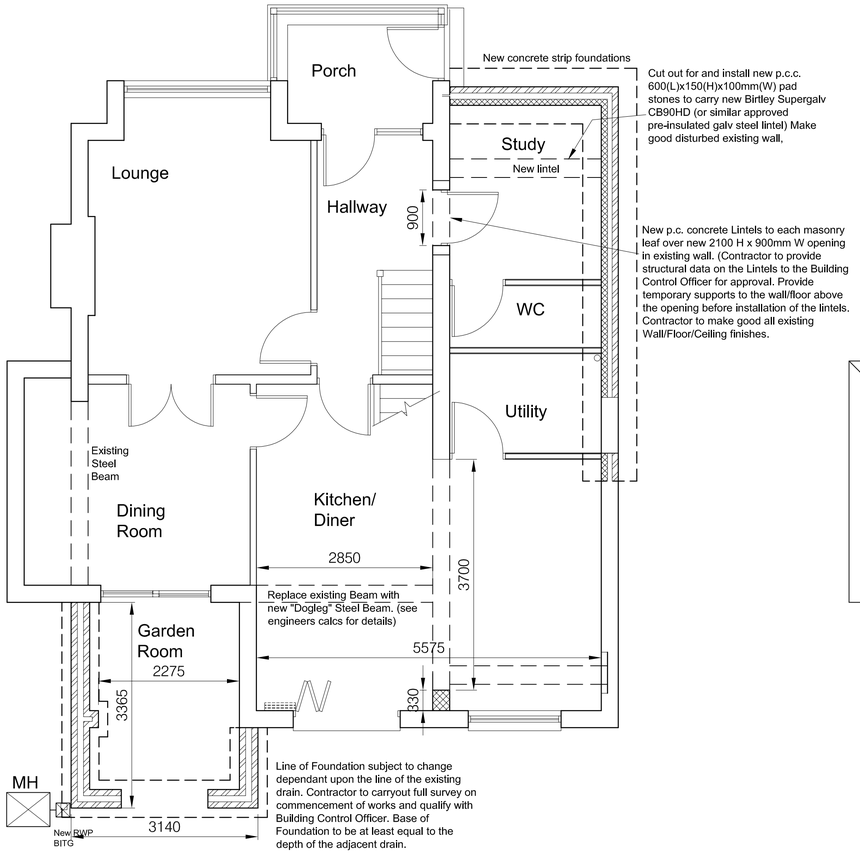
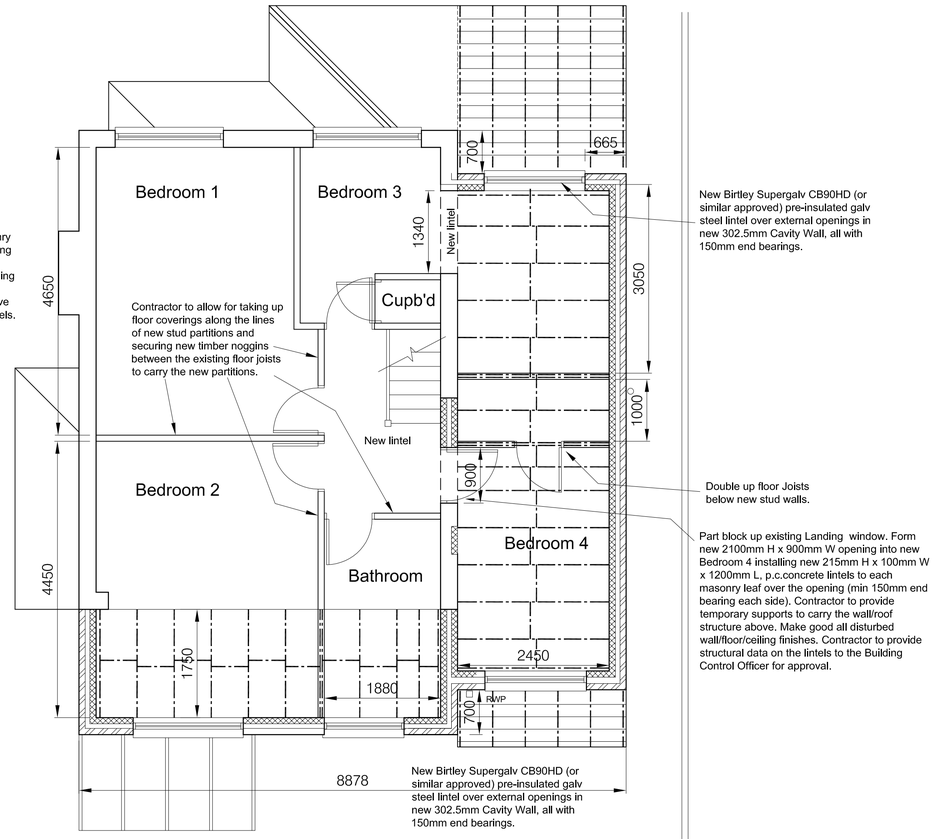
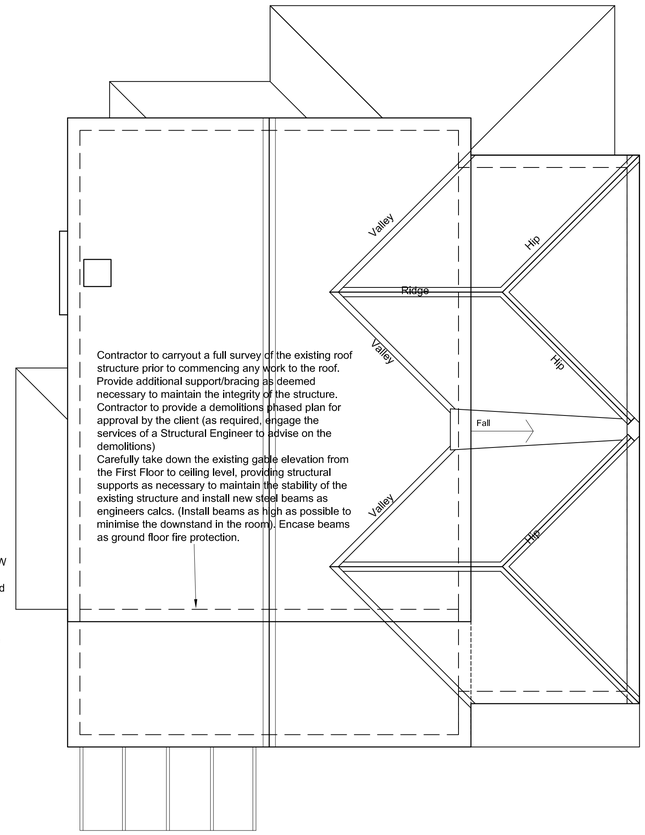


Proposed Ground Floor Plan



Proposed First Floor Plan



Proposed Roof Plan

SPECIFICATION

GENERAL
All work is to be carried out in accordance with the relevant British Standard codes of Practice whether stated in this specification or not. All works are to comply with the Building Inspectors comments
If any discrepancy is found to exist between the drawings and this specification, or the specifications of the specialist suppliers drawings, they shall be reported to the client for clarification.
Where additional work is indicated on any part of the documents, whether it is part of the specific designs or not, then it must be included in the works.
The Principle Contractor/ Contract Supervisor is responsible for all matters of the site and procedural safety, for the work by his own workforce or works of any subcontractor, in accordance with the Construction Design and Management Regulations 1994 and subsequent amendments.
All below ground services to be located, identified, and maintained by the contractor, prior to the commencement of any works on site. Contractor to carryout out a CCTV survey of the drains prior to commencement, and on completion of the contract.

WORKMANSHIP.
Works to be carried out to the requirement of B.S. 8000 (Workmanship on Building Sites) and to the satisfaction of the Building Inspector.

EXCAVATION.
The ground within the area of the works is to be cleared of existing concrete hardstanding, block pavers, top soil, deleterious fill material and vegetation, down to formation levels.
Strip foundation to be taken to the depths indicated, no concrete to be placed until the excavations have been inspected and approved by the Building Inspector.
Where main roots of vegetation are found, remove and fill any voids with approved material.
When excavating within 0.5 metres of an existing structure, or within a 30 degree angle of the soffit of any adjacent foundations, buildings, special working procedures to be agreed with building Control, the HSE if necessary, and the Client before work is undertaken.

FOUNDATIONS.
Existing foundation to be exposed for inspection by the Building Control Officer.
Generally to be insitu concrete C30 strip foundations, min 600mm wide x 225mm deep, with mesh B196 mesh reinforcement top and bottom, (min 50mm cover). There is existing drains that are within 1.0m of the new foundations and will pass through the new external wall. The depth of the new found must be established to allow the drain to pass over the top of the new found. Install a new concrete lintel in the cavity wall to cover the drain through the wall. If the foundations are within 20.0m of a tree or mature shrub, provide protection to the foundation and wall using "Dendro Scott" Root Barrier, or similar approved product.
Foundation depth min 900mm below ground level, but request inspection from the Building Control Officer to confirm exact depth required in relation to any adjacent trees and shrubs.

SUBSTRUCTURE.
GENERAL.
Materials are to be stored off the ground unless for immediate use.
Masonry work to be plumb and level.
Cavities are to be kept clear above ground level.
Joints to be flush finished.
Work to be protected, where necessary, from the weather.
Masonry work must not take place when the air temperature is below 3 deg C or the materials subject to frost.
All freshly placed work is to be fully protected from rain or frost.
Bricks to be mixed as work proceeds from three or more packs to avoid colour bands in the finished structure.

DAMP PROOF COURSE.
Damp proof course to be to B.S. 6515.
Horizontal DPC to be continuous with 100mm laps and cover the full extent of the wall.
Ensure the DPC is not less than 150mm above finished ground level
DPC's to jambs, cills and heads to be in one piece pre-insulated (Damcor or similar) and fitted to each opening with stainless steel staples or nails, or galvanised clouts. DPC to lap behind any cavity tray or lintel at the head and over the horizontal tray at the cill.

WALLS BELOW D.P.C.
Masonry below finished ground level is to be in accordance with BS 8102:1990 and to be Class B engineering quality brickwork to 2 courses below ground level. To be a minimum strength of 34.5N/mm 2 and water absorbency rate of not more than 7%. To be laid in 1:3 cement mortar.
Thomas Armstrong Insulite (or similar approved) blockwork, min 7.3N/mm² medium density block inner leaf off the engineering brickwork up to DPC level.
Facing brickwork to the outer leaf below DPC level to engineering brickwork level to be FL or ML quality, to match the main house. All to be laid in 1:3 mortar, coloured to match the existing above DPC mortar. Fill the cavity to 2 courses below external ground level with lean mix concrete
4mm double triangle stainless steel wall ties above ground level, to BS 1243, to suit 100mm cavity, spaced at maximum 750mm centres horizontally and 450mm centres vertically.
Mortar mix for the above construction to be 1:3 Cement/sand mix.
Cavity Trays "Type W" weep holes located every 900mm horizontally at ground level.

DRAINAGE.
After demolition of the existing single storey Garage and Conservatory structures, and before any excavations are undertaken, the contractor is to carryout a full below ground drainage survey to ascertain exact locations and directions of runs of all existing foul and surface water pipework. Provide a copy of the survey to the building control officer.
Replace any broken/leaking pipes as necessary, make connections in Hepworth Supersleve pipework for the new WC s.v.p's taking to the nearest foul/combined drain. Connect the new Kitchen drainage direct to the existing manhole via a new B.I.T.G, as required, with a new backdrop connection. Encase all new drainage runs in 100mm thk concrete. Provide rodding eyes where new runs connect to existing. Provide concrete lintels over runs that pass through new walls. Any existing drainage within 1.0m of the new foundations or below the new extension to be encased in 100mm thk concrete.

INTERNAL DRAINAGE.
New sanitary appliances to be fitted with 75mm deep seal anti-syphone traps. All new pipework in the Kitchen from appliances to be 38mm diameter self coloured upvc, connected to new 100mm dia S.V.P. New WC's to have self coloured upvc pipework, all with 75mm deep anti-syphone traps, and all connected to new 100mm dia S.V.P's. Handbasin to have 32mm dia pipework, Shower and Bath to have 38mm dia self coloured UPVC pipework. All pipework to be boxed in with access hatches where appropriate.

FLOORS. - GROUND
Break up the existing Garage and Conservatory concrete floor slabs and remove spoil from the site. Reduce levels to allow for:- 18mm moisture resistant Weyroc covering over 1000g Visgueen vapour barrier over 100mm thk Kingspan Thermafloor TF70 insulation (0.2W/m²K "U" value) over 100mm thk reinforced concrete slab over 1200g visqueen DPM over 25mm sand blinding over 150mm well compacted hardcore. DPM carried up the edges of the slab and dressed into the internal blockwork wall at DPC level. 10mm thk flexcell or similar perimeter joint packing. Reinforce the slab with A193 mesh reinforcement. Allow 100mm dia upvc pipework at 900mm cts below the slabs with telescopic vents in the new cavities, to maintain the cross ventilation below the existing timber suspended Floor in the main body of the house.

FLOORS. - FIRST FLOOR
175x50mm C16 s.w. Floor Joists @ 600mm cts max, doubled up below new timber stud partitions and carried on galv m.s. proprietary joist hangers by Catnic (or similar approved). Secure one row of similar sized noggins mid span between the joists and below 30x5x1200mm galv m.s. straps located at 2000mm cts max, tying the floor to the external walls (in line with Building Regulations Approved Doc A item 2C35 and 2C36 Diagram 15). Insulate between the Joists with 100mm Rockwool Acoustic Slabs, cover with 18mm thk moisture resistant Weyroc Sheets. Underside of joists to be covered with 15mm thks Plasterboard with 3mm skim finish.

EXTERNAL WALLS ABOVE DPC
Generally, new masonry external walls are to be 302.5mm thick formed from, 102.5mm facing brickwork outer leaf, (100mm thk dense blockwork to part of Front Elevation with Render Finish), 100mm cavity and 100mm thk Thermalite Shield inner leaf. 50mm Kingspan Kooltherm K108 partial fill insulation board built into the cavity and retained against the inner leaf with retention wheels clipped to the 4mm thk stainless steel, double triangle, BS1243 wall ties located at 750mm cts horizontally and 450mm cts vertically. Ties around openings to be located at 225mm cts vertically. Wall to achieve a min 'U' value of 0.24W/m²K. New walls to be tied to the existing structure with "Catnic" or similar approved stainless steel wall starters, maintaining the existing cavity at the junction with the new wall. Cavity to be closed at jambs, head and cill with pre-insulated DPC. Head of wall to be closed with pre-insulated (Damcor or similar) cavity closer. Cavity Trays Ltd 'Type W' perp weep hole inserts every 900mm cts horizontally above lintel levels.

ROOF CONSTRUCTION.
NEW EXTENSION ROOF STRUCTURE.
New Roof Structure to be formed using proprietary Trussed Rafters by specialist manufacturer, at 600mm cts max, (calculations to be submitted to the local authority for approval) at a pitch to match the existing house roof (23° pitch). Bracing to be designed to comply with BS 5268 and the current Building Regulations. Trusses tied to the cavity wall in accordance with Approved Doc A 2C35 and 2C36 Diagram 16. Trusses secured to the wall plate with Catnic or similar approved galv m.s. truss clips. 100x75mm s.w. wall plate secured to the cavity wall with 30x5x1200mm galv m.s. straps located at 1200mm cts max. All to be installed in accordance with BS5534

ROOF COVERINGS.
Concrete interlocking roof tiles to match the existing main house. Tiles to have 75mm min headlaps and fixed to 50x25mm preserved softwood battens, graded to BS 4978, with 45x3.35mm slate nails and tile clips. Battens secured to the rafters over reinforced Monofol roofing felt to BS747. Type F1. Monofol dressed at eaves into gutters. Hip and ridge tiles to match the existing and secured with Marley dry fix ridge ventilation system and Marley Universal 25mm over fascia eaves vent, to maintain cross ventilation, (All roofing elements must be secured as recommended for an area of severe exposure.) Secure between the rafters 100mm thk Rockwool Rollbatt and 200mm over the rafters, to achieve a "U" value of 0.14W/m²K. Maintain a clear 50mm ventilation gap between the roof covering and the insulation, installing proprietary spacer at eaves level. See Section for details of the low level Roof to the front elevation.

ELECTRICAL.
Provide lighting and electrical sockets in accordance with the current I.E.E. regulations, and part 'P' of the current building regulations. Generally extend existing power from the House to the new extension, including sockets, lighting and smoke detection. Quantity and location all as agreed with the clients. Contractor to allow for new hardwired smoke detectors to the Ground Floor Hallway and First Floor Landing. All electrical works to be carried out by a suitably qualified person, and tested on completion with the test certificate made available for the client and building inspector.

HEATING.
Contractor to allow for a new fuel efficient Condensing Boiler to a location to be agreed with the Client. Allow for extending the existing heating system into the new extension and Conservatory. Client to provide details of the extent of replacement of existing radiators. Contractor to allow for new thermostat valves to all new and retained radiators in the house. Make good all disturbed areas. (On completion, in compliance with Part L1 of the current building regulations, the contractor is to provide an 'Energy Performance Certificate' and 'Gas Safe Certificate')

WINDOWS AND EXTERNAL DOOR.
All new and replacement windows and the new external doors are to be Grey coloured, upvc with hermetically sealed, double glazed units. External pane to be laminated Pilkington K (or similar low-e glazing), and internal to be toughened. All in compliance with Approved Document K and Table 1, Part L1B of the current building regulations. Each window to have 8000mm² trickle vents. Min 'U' Value of windows to be
1.6 W/m²K and Doors to be 1.8W/M²K

LINTELS.
Existing Lintels over openings that are to carry the new First Floor extension are to be exposed for inspection by the Building Control Officer and replaced if deemed necessary. Unless stated on the plans, see engineers drawings for details of new steel beams. All lintels to have a min of 150mm end bearing. Concrete padstones as required by the Structural Engineer. See Structural Engineers calcs for details of the New Beams in the Kitchen and Below the Double Hip Roof.

MECHANICAL VENTILATION:-
Provide mechanical Extraction to Kitchen, Bathroom, En-suite and Utility. Kitchen to be extracted at a rate of 30L/s and the Bathroom/En-suite/Utility at a rate of 15L/S, all in compliance with Part F of the Current Building Regulations.

Rev A. 7-2-2021. Notes added as required by the Building Control Officer.
1. Brick piers to Front Elevation Left side increased from 553 to 665mm, windows reduced inside by 112mm.
2. Mechanical Extract Note Added.
3. Foundation note added.

Rev B. 06-05-2021.
Rear of Side Extension stepped back 700mm as requested by Planning Officer

client
Mr & Mrs D. NAPIER

project
Proposed Two Storey Extension to the Rear and Side of
32 Milford Road, South Shields. Tyne & Wear. NE34 0EQ

drawing
PROPOSED STRUCTURAL PLANS & SPECIFICATION

scale 1:50 date July 2019 drawing No. 05-07-19