WORK SPECIFICATION - REAR EXTENSION

General Notes

1. All dimensions in mm and all levels in metres aod unless otherwise stated.
2. Minimum Grade timber to be C16 (refer to bs:5268).
3. No works to commence without Building Regulation approval
4. Minimum headroom to all habitable rooms to be 2300mm.
5. The Contractor is to comply with the approved plan at all times. Any alterations to the approved plan must not be made unless prior approval is given by local authority and architect.
6. Refuse collection to be maintained (section 55 public health act).
7. The contractor is to confirm the exact nature, size and depth and location of statutory undertakers appratus prior to the commencement of siteworks. The contractor is to excavate by hand in the vicinity of statutory undertakers' apparatus, taking care not to disturb services, disrupt supply or endanger site staff or members of the general public. The Contractor is to take responsibility and risks associated with the support and protection of apparatus during excavation works.
8. All concrete to be Grade C35 with water resistant additive.
9. Nominal cover to reinforcement shall be 35mm.
10. All reinforcement shall conform to relevant British Atandards
11. Minimum lap for reinforcement shall be:

Mesh fabric reinforcement
A393 - 400mm

12. All steelwork to be Grade S275 and coated with 2 coats of Zinc Phosphate protective covering.
13. All new steelwork to be built into existing and new walls and have min. 150 bearing either side. All steelwork to have min. 0.5 hour fire resistance
using 12.5mm Gyproc fireline plasterboard and plaster skim with150mm deep mass concrete padstones directly below bearing positions of new steel beams either side. Width of padstones to be min width of incoming steel beams + 50mm either side. Steel beams to be dowelled into padstones as shown.
14. Appropriate temporary propping will need to be provided prior to construction of any new openings and installation of supporting steel beams.
15. External timber member ends built into walls to be treated with preservative.
16. All gas, water and electrical installations to be to approved standards and regulations.
17. Contractor to consult with client with regards to to type and number of internal/external fixtures, fittings and furnishings.
18. All work to be carried out in accordance with current Building Regulations and the relevant British Standards - COP - CE and the satisfaction of the LBCO and Planning Authority.
19. The Contractor is to provide full weather protection during through to completion of contract.

Foundations

Inspect existing foundations to ascertain depth and soil condition.
Foundations to be 750mm wide and 225mm thick C35 Grade concrete and reinforced in accordance with A393 mesh fabric reinforcement to base with 30mm cover.
Foundations to be taken down to load-bearing strata and to the approval and full satisfaction of the Local Authority Building Control Officer (LABCO). Prevent undermining and/or surcharging existing foundations and retaining walls.

Walls Below DPC

Approved foundation grade blockwork below ground level. Brick below DPC to be F2 rated Class A or Class B engineering brick.
Lean mix concrete cavity fill up to 225mm below DPC. 4 courses facing brick min below DPC to outer leaf of external wall.

Walls

External Walls - Outer leaf to be 100mm brickwork to match existing property. Allow for 115mm cavity partially filled with 90mm Kingspan Kooltherm K106 Cavity Board cavity insulation on all walls. Cavity wall ties to have a retaining clip for securing the insulant to the masonry plane and be of a double drip type. Inner leaf to be 100mm 1800 kg/m³ (10 N/mm²) solid blockwork with 12mm lightweight plaster with 3mm skim finish. 'U' value 0.18W/m2k. Allow for ventilating existing floor voids using telescopic air vents. Allow for air bricks in new walls.

Ensure cavity wall ties are positioned at maximum 750mm horizontally, 450mm vertically. Additional ties required at 225mm vertical centres to side of all openings and at 225mm continuous centres along the verge.

Allow YBS Easiclosure insulated cavity closer or equivalent.

Internal Non-load Bearing Walls:

Internal walls to be constructed using 100x50mm SW timber studs comprising head and sole plates, uprights at 400/600mm centres and noggins staggered at mid height. Framing to be boarded both sides with 12.5mm Gyproc Wallboard, taped joints and finished with 3mm skim finish using Thistle board finish. Plaster boards are to be fixed to the timber studs using Gyproc Drywall timber screws. All new internal walls to have 65mm mineral wool insulation in the partition.

Roof Construction

Roof covering to extension to be Centurion Forticrete low-pitched roof tiles. Tiles to be laid on 25x50mm SW treated battens on breathable membrane laid in accordance to BS5534 and 5250. Allow for either roof trusses or ridge beam/purlins/rafters. Wall-plates to be strapped to the walls at 1m centres using galvanised mild steel metal straps (cross section of 30x5mm) - Installed to the full satisfaction of the Building Control Officer.

Bottom boom of ceiling joists to be under-drawn with 12.5mm plasterboard skimmed, in-conjunction with tri-iso super 10 barrier insulating fabric and battens, all in accordance with the manufacturers instructions.

Fascia and soffit detail to match existing - with a 25mm wide ventilation strip to allow cross ventilation to roof.

Tiles must be mechanically fixed with a clip or nail if they are single-lapped. Use mechanical fixings when using mortar for verges, ridge or hips in accordance with BS5534. Alternatively a dry fix system can be used.

Cavity and roof insulation to be butted together at eaves and gaps sealed using expanding foam to maintain continuity of insulation.

Code 5 lead flashing to be used for construction of valley gutters with 18mm wbp ply liner.

Allow for breathable felt at roof level below rafters/purlins. Allow for ventilated loft space with eaves level vents.

Roof insulation at ceiling level to be Kingspan Nilvent breathable membrane and vapour barrier with 150mm thick Kingspan Kooltherm K107 between and above ceiling joists. Max 'U' value 0.15W/m2k. Ensure rafters are able to carry weight of insulation. Assume truss rafters are min. 147mm deep (depending on design of truss rafters by specialist). Consult with Kingspan technical enquiries for further advice. - Tel: 01544 387382.

Structural Work

Steel beam ends to bear on concrete padstones. Reinstate brickwork around beam ends and pack voids well with mortar. All steelwork shall have a minimum of half-hour fire resistance to be achieved by using one layer 12.5mm Fireline plasterboard with filled taped joists, finished with plaster skim finish.

Lintels:- Unless specified all lintels to door and window and general openings (internal and external) to be CX90/100 extra heavy duty Catnic steel lintels fitted in accordance with the manufacturers specification. All lintels to achieve 150mm end bearing. All lintels to have horizontal damp proof course.

Windows

To be bespoke high performance white UPVC or all opening lights to have draught seals, window stays to be lockable. Approved trickle vents to be fitted min 9000mm/2. Windows to be double glazed in Pilkington K Glass, argon filled with soft low E coating to inner pane. Max 'U' value 1.4W/m2k
Windows to have openers equal to min 1/20 floor area. Bedroom windows to be escape windows with minimum clear opening of 750mm deep x 450mm wide. Between 800mm - 1100mm from finished floor level to underside of window sill. Allow for obscure glass windows where specified.

Doors

All internal doors to all floors to be 1/2 hour fire rated doors. Allow for side external door to be a composite or UPVC door. Rear doors to be aluminium framed bio-fold doors.

Floor Construction

New Ground Floor Construction

Allow for minimum 225mm ventilated void below floor and 100mm leanmix on 2000 gauge visqueen DPM. Allow for timber joists @ 400mm c/c with 130mm thick Kingspan K103 Kooltherm insulation with 22mm thick moisture resistant timber floorboards and vapour layer above. Allow for mid-point strutting and double up joists under partitions. Allow for sleeper walls with air bricks where required to support ground floor. Allow for telescopic vents to ventilate existing floor voids. Max 'U' value 0.18W/m2k. Allow for telescopic vents to ventilate existing floor void.

OR

22mm thick moisture resistant floorboarding on vapour control layer on 50wide x 80mm thick moisture resistant timber battens @ 600mm c/c with 100mm thick Kingspan TF70 Thermafloor rigid insulation between on 150mm Grade C35 reinforced concrete slab (A393 mesh fabric reinforcement top and bottom with 35 cover) on 1200 gauge Visqueen Damp Proof Membrane lapped onto DPC 150mm above external ground level. Concrete slab on 50mm sand blinding on 150mm compacted hardcore base. Ground floor to achieve a min. U value of 0.18W/m²K.

Ensure that any air grilles/vents to existing property that are covered by the new extension are extended through to the external walls (of the new extension/porch) using telescopic vents.

12.5mm gypsum foilbacked plasterboard & skim to ceiling.

Ventilation/ Glazing

Double glazed unit (K-Glass) set in UPVC frames to match existing adjacent windows. Glazing to doors and windows with a cill height less than 800mm from finish floor level to be safety glass.
Windows to have an open area 1/20th the area of room served. Background ventilation to be provided by trickle vents equal to 8000mm2 and 4000mm2 to wc.
Measures to be taken to deal with thermal bridging. Install draught seals to inspectors satisfaction.
Obscure glazing to all side windows. Bathroom/WC to have mechanical ventilation in the form of a fan extracting at a rate of 15 liters per second linked to the light switch with a 15 minutes overrun facility.

Drainage

Run of drainage surface water and combined public sewers to be determined on site prior to commencement as agreed on site with LABCO. All drains to be 100mm dia upvc laid to falls to be 1:40. All drains to be bedded in pea gravel. Where pipes pass through walls and foundations these are to be bridged with concrete lintels giving 50mm clearance between the lintel and the pipe.
Grub up drains not in use. Where applicable separate drainage system to be maintained. All drainage to be fully accessible with roddable gullies/access chambers. New IC's rodding eye's to be Hepworth or similar and approved and laid as per manufacturers instructions and recommendations.
S.V.P to have rodding point.
The whole of the proposed drainage system is to be tested prior to backfill and again on completion.

Sinks to have a 50mm diameter waste pipe and 75mm deep seal trap. Sink to discharge into a back inlet gully.

WC's to have a 75mm trap and a 100mm diameter waste pipe. Basin to have a 38mm diameter pipe and a 75mm trap. Connected to a new 100mm dia. soil vent pipe and to discharge 900mm above any opening windows.
Any waste pipes with excessive lengths to be provided with anti-vac traps.

Plumbing must be installed to ensure appliances drain effectively without causing cross-flow, backflow, leakage or blockage. underground pipework with less than 750mm cover to be insulated.

New inspection chambers to be 450mm diameter plastic inspection chambers on a 100mm concrete surround.

All drainage works to be to the complete satisfaction of the Local Authority Building Control Officer.

Smoke/Heat Detectors

To be mains wired and interlinked with battery back up.
HD - Heat detectors to BS 5446-2-2003
SA - Smoke alarm to BS 5446-2-2003

Electrical Works - NICEIC - NAPIT - BRE CERTIFICATE - ELECSA

All wiring and electrical work, to which the requirements of Part P apply must be designed, installed, inspected and tested in accordance with the requirements of BS7671, the IEE 17th Edition Wiring Guidance and Building Regulations Part P (electrical safety). On completion of the works a copy of the Installers Electrical Installation / Test Certificate compliant with BS7671 is to be provided to the client and the Local Authority and prior to covering all wiring / cables. The applicant / installer is to ensure that the installation is inspected by a competent person (the person must be registered with an authorised self certification scheme as above) and on completion of the work. In addition to the installation certificate, an additional competent person's Electrical Installation Test Certificate compliant with BS7671 is to be provided to the client and the Local Authority.

All new light fittings should have an efficiency of at least 75 Light Source Lumens per Circuit Watt .

Switches and socket outlets for lighting and other equipment in habitable rooms to be positioned between a zone of 450mm and 1200mm from finished floor level.

Ventilation

Bathrooms to have min 15 lt/sec extraction all ducted to external air, operated from light switch and fitted with overrun.
All extract fans to terminate to external air.

All electrical works to be undertaken by a contractor who can self certify under a part P Certificate.

Heating

Install 1 No. double-panelled radiator each in existing and proposed living spaces.

Decoration

All timber work except self finished doors to be knotted and primed, apply two coats undercoat, one coat white gloss finish. All plastered finishes apply three coats emulsion.

Revisions		
	Date	May 2025

Planning Application for:
Rear Extension
14 Harefield Drive, Birstall

Drawing Title:
Work Specification

Drawing No: S03
Rev

Scale: As shown
Paper Size: A2