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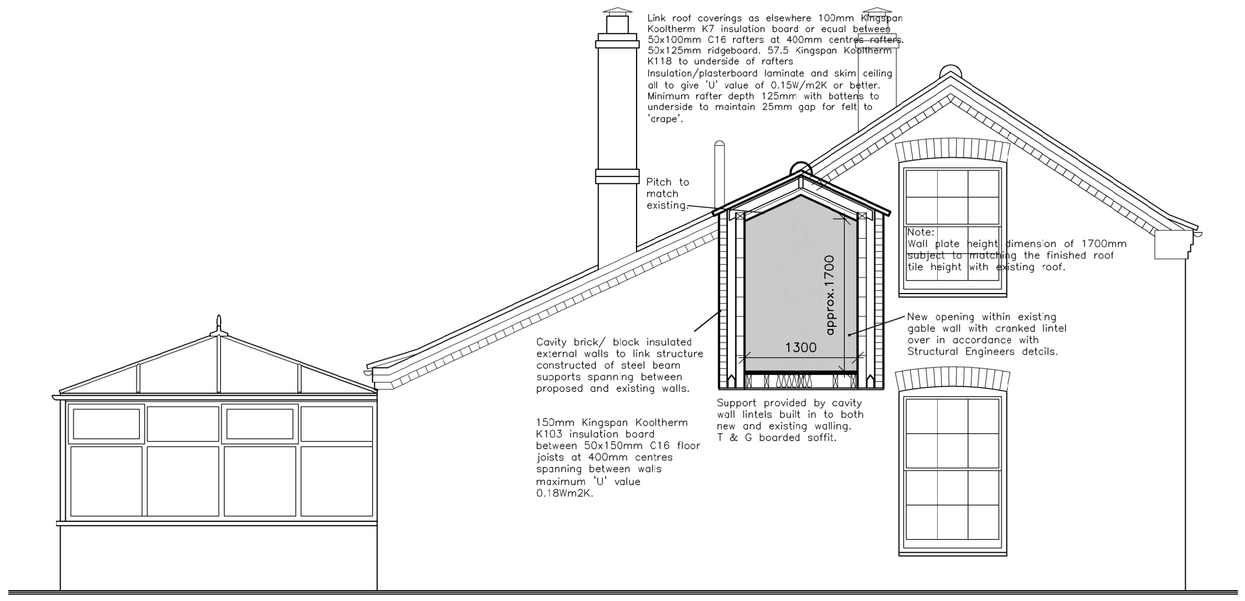
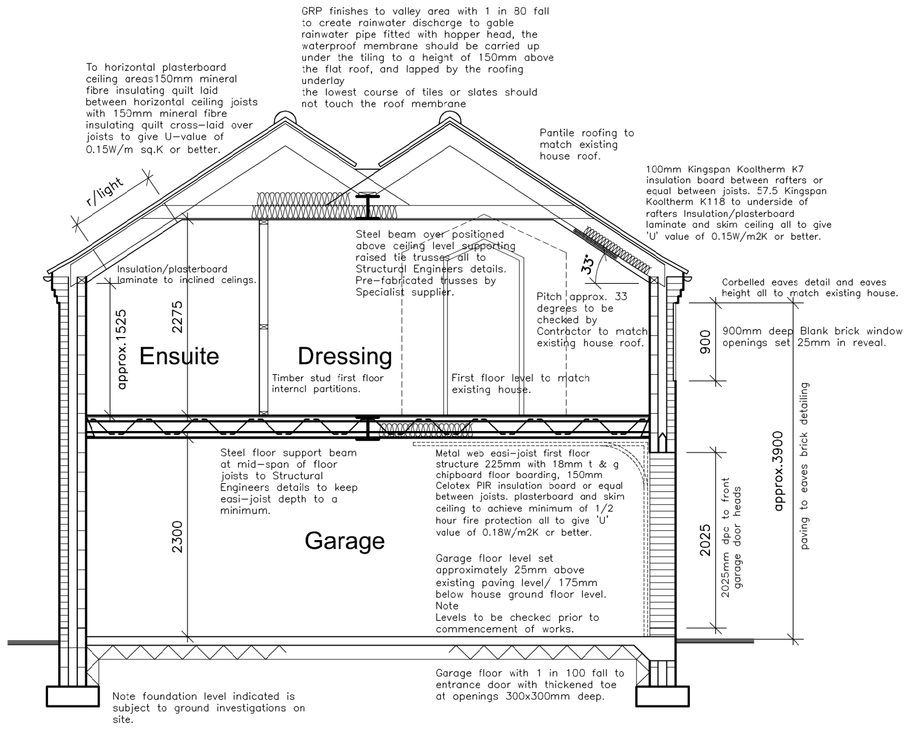
REVISION:	DESCRIPTION:	MADE BY:	DATE:
A	IQ Glass details added for flying link	NH	07.09.2022
B	IQ Glass section details added for flying link	NH	21.09.2022
C	Link and garage front elevation emendments	NH	28.03.2023



EXISTING SIDE ELEVATION (WEST) & LINK SECTION

SCALE 1:50



SECTION A-A

SCALE 1:50

CONSTRUCTION NOTES

Foundations
All foundations to be positioned centrally under walls. Depth of foundations to be in accordance with the drawings and the Local Authority's requirements, minimum 900mm and 1000mm if in clay. Details of footings are based on an assumed ground bearing capacity of 70Kn per metre square and are subject to site inspection during the excavation of the works.
600 x 225mm continuous mass strip foundations to cavity walls.
All foundations and floor slabs to take account of both removed and retained trees and hedges in accordance with the Guidance contained within NHBC Chapter 4.2.
Foundation drawings, details and notes shown on the drawings and specifications are for indicative purposes only which are subject to full ground investigation results. Contractors cannot rely on the nature of foundations shown until full information of subsoil, including onsite, offsite and underground features are established, subsequent to excavations on site. The nature of subsoils influence the design of foundations when building near trees which cannot be established until excavations are made on site.

Garage Floor
100mm thick oversite concrete laid with 1 in 100 fall towards entrance door, on 120C gauge Visqueen DPM linked to horizontal wall DPC, on 25mm sand blinding, on 150mm minimum well compacted hardcore.

Resistance to Moisture
Assess all moisture risks including precipitation, wind driven spray, moisture emanating from the ground, as well as interstitial and surface condensation. Make appropriate provision to reduce all risks in accordance with the requirements of Approved Document C2.
The ability of the walls, floors and roof to resist the passage of moisture to the inside of the building to be assessed and damp proof courses and membranes to be provided where necessary.

Drainage
100mm diameter upvc pipes to BS 4660 with flexible joints laid to minimum 1:60 falls. Pipes to be bedded and surrounded with pea gravel. Inspection chambers to be 225mm Class B engineering brickwork laid in cement mortar on 150mm concrete base or alternatively inspection chambers to be upvc to suit upvc drainage system. Inspection chamber covers to be non-ventilating and be secured ie. key operable. Rainwater drains to be pvc system minimum 1 in 80 gradients with pvc system rodding eyes and inspection chambers. Guttering to be 1`2mm and downpipes to be 68mm. Drains beneath the building to be encased in 150mm pea gravel. Drains passing through walls to have 150mm pea gravel surround extending 900mm on each side of wall and lintel over. Rigid sheet material to mask 50mm clearance around drain opening and wall. 32mm diameter waste pipe to wash hand basins, 40mm diameter waste pipes to shower. All waste pipes connected to soil stacks to have 75mm deep seal traps. Where waste pipes exceed the maximum permitted lengths in Approved Document H then anti-syphon traps to be used. 100mm diameter upvc soil vent & waste pipe with built in grating at terminal. Drains with less than 600mm cover to be protected with 75mm concrete. Vent pipes to terminate 900mm above window/door openings when within 3.0m.

External Wall
102.5mm facing brickwork, 100mm cavity with 90mm Kingspan Kooltherm K106 (or equal) cavity board insulation built in as work proceeds in accordance with the manufacturer's recommendations, 100mm lightweight, minimum 3.5N/mm2, loadbearing insulating block inner leaf (thermal conductivity value no more than 0.11W/mK. U value to be 0.18 W/m²K or better. Internal walls of class B 3.5N/mm2 blockwork with 13mm render & skim finish to both faces. External wall cavities to be cased at window reveals, jambs and cills with cavity closer by Thermabate or equal, with insulation to avoid cold bridging to achieve minimum thermal resistance path of 0.45m2K/W and incorporating dpc. Wall insulation to overlap level of floor insulation by minimum 150mm. Stainless steel wall ties 225mm long at 450mm centres vertically and 750mm centres horizontally staggered, and at 225mm centres around openings. Textured polythene dpc to suit width of masonry, 150mm minimum above ground level. Provide IG lintel type Int.100mm, internal type lintels to all internal openings in 100mm blockwork. Openings to cavity walls to receive IG lintel type L1 S/100, standard insulated type with dpc cavity tray dpc over overextending 100mm each end. Note extra heavy duty loading type lintels to be used over openings below roof level to accommodate any point loads from girder trusses within roof layout. Minimum end bearing for lintels spanning up to 1200mm, to be 100mm and spanning over 1200mm to be 150mm end bearings. Provide weak mix cavity fill leaving a minimum of 225mm cavity below dpc level. Sub structure walls to be built in blockwork/brickwork suitable for underground in 1:4 cement:sand mortar.

Windows & Doors – uPVC
Windows to be UPVC frame with double glazed units to provide 'U' value of 1.4W/m²K or better. Windows to give 1/10th daylight and 1/20th ventilation of floor area. Doors with 50% or more glazing to provde 'U' value 1.4W/m²K other doors also to be 1.4W/m²K. Area of windows, doors & roof lights together not to exceed 25% of floor. Escape to be provided to habitable rooms on ground and first floor by sash to open to give minimum 0.33m2 opening, minimum 450mm high and wide, bottom of opening to be maximum 1100mm from floor level. Provide mastic painting on plastic foam backing to window/door frames and brickwork externally. Windows and doors to be set back in reveal so that cavity closers are overlapped by minimum 30mm. Any glazing below 800mm above floors to all windows and all glazing to doors and sidelights to be toughened safety glass and to comply with BS 6206, and Building Regulations. Over-rideable window opening restrictors to be provided to opening sashes within 800mm of floor level to leave max.100mm gap. To limit infiltration, all doors, windows, loft hatches and other openings to be sealed with draught seals or similar.
Doorsets manufactured to PAS 24:2012 or Appendix B of Approved Document Part Q. Frames mechanically fixed to building in accordance with manufacturers instructions, lightweight frames to incorporate a resilient layer such as timber sheathing 9mm thick, expanded metal or similar Provided to full height of door and 600mm either side. Windows or doors within 2000mm of an accessible surface or within 2000mm vertically of a sloping or flat roof (pitch less than 30 degrees) itself within 3500mm of ground level shall be constructed to PAS 24:2012. Frames mechanically fixed to structure as above.

Timber First Floor
To be Easi-Joists floor joist system by Wolf Systems (or equal) at 400mm centres with 18mm t & g chipboard floor boarding. Joist bracing/ strutting all in accordance with joist suppliers details. Double joist arrangements to trim openings and support partitions all in accordance with joist suppliers recommendations. 50mm Celotex PIR insulation board or equal between joists, plasterboard and skim ceiling to achieve minimum of 1/2 hour fire protection all to give 'U' value of 0.22W/m2K or better.

First Floor Walls
To be softwood studwork partitions where indicated using 50 x 75mm noggins, plates and studs at 400mm centres. Min. mass per unit 10kg/m2 12.5mm plasterboard (Gyproc wallboard 10 or equal) and skim both sides. 75mm Dritherm between studs .

Main Roof – pitch as drawing
Roof tiles & ridges fixed in accordance with BS 5534 on 50 x 25mm tanalised softwood battens on Tyvek Supro(or equal) breathable roof felt (felt to be allowed to 'drape' 25mm between rafters to allow drainage path below roof battens) on trussed rafters at maximum 600mm centres with binders and wind bracing to comply with BS 5268, Part 3, 1985. Details of trussed rafters and calculations to be submitted for approval before manufacture. Truss clips to be used to fix trusses to wallplate as directed by truss manufacturer. 25 x 100mm longitudinal, diagonal and chevron wind bracing as directed by truss manufacturer. 50 x 100mm preservative treated softwood wallplates, fastened to inner leafs with 30 x 2.5 x 1000mm long galvanised mild steel straps at maximum 2000mm centres with 6No. fixings into blockwork. 30 x 5 x 1500mm long galvanised mild steel lateral restraint straps with 130mm turn down fixed to blockwork and fastened to rafters and ceiling joists of 3No. trusses at gable walls at maximum 2000mm centres supported with 50 x 100mm noggins beneath straps between rafters and joists. 12.5mm plasterboard and skim ceilings.
Provide all necessary noggins and scrim cloth at board edges and ceiling perimeters.
150mm mineral fibre insulating quilt laid between horizontal ceiling joists with 150mm mineral fibre insulating quilt cross-laid over joists to give U-value of 0.15W/m sq.K or better.
Ceilings where following line of roof pitch 100mm Kingspan Kooltherm K7 insulation board between rafters or equal . 57.5 Kingspan Kooltherm K118 to underside of rafters Insulation/plasterboard laminate and skim ceiling all to give 'U' value of 0.15W/m2K or better.

Ventilation
Background ventilation of minimum 8000mm sq. ventilation to main rooms and min. 4000mm sq. to En-suite provided by controllable window ventilators.
Overall ventilation free area in accordance with Approved Document Part F, table 5.2a. Extractor fan in Ensuite to be ducted to external air. extractor to Ensuite to provide 15 litres per second.
Extractors serving Bathrooms and Ensuites without windows to be operated by light switch to give extract of 6 litres/second and be fitted with 15minute over-run facility. Air input to be provided by ensuring 10mm gap under door.

1:50 0 0.5 1 1.5 2.5 m

CLIENT: Mr & Mrs G Kime

PROJECT: Proposed first floor extension to dwelling
Lings Barn Grovefield Lane Freiston Boston Lincs PE22 0QL

TITLE: Sections & construction notes

SCALE: 1:50
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