

Trussed Roof (Over beds 5 & 6)
Roof slate to suit pitch (40 degrees) on 25x38mm s/w battens on corovin 150 vapour permeable roofing felt on trussed timber rafters bearing on 75x100mm sw wallplates. Plasterboard and skim finished.
Trussed rafters to be designed and braced to BS5268 parts 2&3 (ATTN TRUSSES)
All calculations on bracing details to be provided by specialist truss manufacturer prior to erection.
To all triangular roof joists provide 270mm of fibre glass quilt (170mm laid between joists with 100mm laid over top at right angles)
Provide ventilation to roof space using REDLAND Redvent 25 Over Fascia vents fitted to manufacturers instructions.
Provide high level roof vent tiles if necessary.
Provide 5x38x900mm long mild steel straps fixed over wall plate and fixed to wall at max 2m c/c.
Provide 19mm ply wood fascia board and soffit at eaves to receive 100mm dia. UPVC half round gutter draining to 68mm dia. Rwp.

Roof over MEZZANINE & Landing
Roof slate to suit pitch (40 degrees) on 25x38mm s/w battens on corovin 150 vapour permeable roofing felt on 50x150mm s/w rafters at 450 cc bearing on 75 x 100mm s/w wall plate and BIRDsmouth over wall plate fixed to top of new joists, ACTING AS MECHS & BRACE.
Rafters to be to BRIDGEHEAD DETAILS
Provide 25x150mm COVE & VENTS UNDER VAPOR BOARDS TO SUPPORT FOOT OF RAFTERS TO NEW REF.
(REMOVE JOISTS OVER BED 2 TO BE 20x150mm (PITCH 20x150) @ 400mm c/c FIXED BETWEEN WALLS.
Insulation to roof void as roof notes above.
To vaulted section of roof THROUGHOUT build out rafters to 200mm depth to allow 150mm kingspan thermopitch TP10 insulation between rafters maintaining a 50mm air gap between top of insulation and underside of roof felt.
* (50 x 100mm battens could be used).
* Provide VENTED ROOF OVER GROUND FLOOR FRONT DOORWAY.

Flat Roof (NOT APPLICABLE)
Fibreglass roof finish (or similar approved) on 115mm of celotex tempcheck deck insulation 19mm ply decking on 50x195mm s/w joists at 450 centres bearing on 75x100mm sw wallplates and joist hung from timber bearers bolted to existing wall.
Triple up joists to form opening for new glazed atrium.
Underside of joists plated in a 12.5mm plasterboard and skim finished.
Provide timber fillets to top of joists to create slow fall.
Provide 19mm exterior grade plywood fascia board and soffit at eaves to receive 100mm dia UPVC half round gutter draining to 68mm rwp.

Staircase
19mm sw treads and risers housed together into 32mm thick stringers.
provide 75x50mm angle blocks glue fixed under each tread for additional support.
Stringers to be housed into 100x100mm sw newel posts Securely supported by floors.
Staircase width 1000mm (750mm wide to MEZZANINE & GARAGE).
Staircase riser: 200mm (14 risers)
Staircase going: 225mm
(All to be checked on site)

Handrail to be 1100mm high at landings and 900mm above pitch of stairs with guardings spaced so that a 100mm dia sphere cannot pass through any gaps.
Staircase and handrail to comply with building regulations APP DOC

WALLS.
102.5mm OUTER LEAF BRICKWORK (WHERE INDICATED) ~~100mm rendered concrete blockwork~~
100mm full fill cavity with kingspan insulation and 100mm thermalite blockwork inner leaf to give overall U value of 0.28 w/m2k. Plaster and skim internally. Provide splade weak mix concrete cavity fill a minimum of 225mm below dpc level with stainless steel vertical twist wall ties at maximum centres of 450mm vertical c/c and 900mm horizontal c/c and to be staggered at door and window openings. Stagger to be 300mm.
Ties to be in accordance with BS 1234 and to be inclined to the outer leaf. Provide Hyload dpc, or similar approved, a minimum 150mm above external ground level.
Install IG stainless steel lintels (type LI/S80 with cavity tray dpc's over), or similar approved above all new door and window openings on external walls. Cavity to be closed at head with supalux. Cavity to be closed at openings with insulated cavity closes by DAMCORE.
Use Domicore vertical dpc to all new external openings. Provide 5x38x900mm long mild steel restraint straps fixed across 3no. rafters, where rafters run parallel to walls. Allow for noggins between rafters. Provide weep-holes at maximum 900mm c/c above ground level and above cavity tray dpc's. A minimum of 3 per opening is required.
All internal wall at ground floor level to be 100mm block work (load bearing walls noted on foundation plan).

Stud Work
Walls to first floor to be insulated stud partitions with 75mm mineral wool (10KG) to voids.
Both sides to be plated in 12.5mm plaster boards and skim finish.

First Floor
19mm T&G boarding on 50x195mm s/w tanalised floor joists bearing on inner leaf of new external wall at 450mm c/c and internal load bearing walls.
~~Joists to be increased to 75 x 220mm at 400mm cc over lounge and garage areas (see Joist plan).~~
Underside of floor joists to be plated in 12.5mm plasterboard and skim finish. Provide strutting between all joists at mid spans.
Provide 100mm mineral wool layed between joists to satisfy E2.
~~Provide 140mm styro foam insulation between joists above garage.~~
Double up with joists below any first floor partitions and to trim out stair opening.
Provide 5x38x900mm long mild steel straps fixed to first

Ground floor
Construct ground floor in 75mm sand and cement screed on 150mm concrete slab on 150mm celotex insulation on 1200 gauge visqueen damp roof membrane on a sand blinded hard core in 150mm well compacted and consolidated layers.
dpm to lap dpc.
Provide 25mm of celotex to perimeter of slab and screed at external walls, to prevent cold bridge.

Garage floor
100mm concrete slab with a power float finish on 1200g visqueen DPM on a sand blinded hard core.

Sanitary
All new fittings to have 75mm deep seal traps or resealing traps if sink is more than 3.2m from gully. Sink to also have 38mm dia waste.
Encase all drains under buildings in 150mm concrete.
All foul and surface water drainage to be 100mm dia. approved type unless otherwise stated.
Provide Lintels where drains pass through external walls.
All svp's to be boxed in and insulated to part L. Provide an unscrewable access panel to enable full roddability.
All invert and cover levels to manholes to be agreed on site with local authority building inspector.
All soakways to be designed in accordance with BRE Digest 365 and to be a minimum of 5m from building.

Foundations
Concrete strip foundations: 600mm wide x 200mm deep with an approx. cover of 900mm (refer to section drawing). All internal load bearing walls built of 400mm wide concrete strip foundation. Foundations are to be to complete satisfaction of local authority Building Inspector and are to suit site conditions.

General
Window areas of habitable rooms are to be 1/10th the floor area and are to be provided with trickle ventilation system or facility to give total area not less than 8000mm2. Window openings are to be 1/20th area.
All openings to be fully draftproof.
All windows are to be double glazed with a 22mm gap and incorporating K glass. value of -1.6 w/m2k)
All Bedroom windows are to have clear minimum openings of 850mm high x 500mm wide.
Glazing to all bathroom and en suite rooms to be obscured.
Glazing to all critical areas to be fitted with toughened, thickened, or laminated kite mark safety glass.
Style of windows to be confirmed.
In order to satisfy building regulations all structural timbers used must be strength graded and marked Dry or KD.
Provide energy efficient lighting.
All new radiators are to be fitted with thermostatic valves & to be in strict accordance with domestic heating guide.
All electrical works to meet part P & must be installed, inspected and tested, by a person competent to do so. An appropriate BS 7671 electrical installation certificate is to be issued by a person competent to do so after council is satisfied that part P has been complied with.

Provide mechanical extract vents to give min. ventilation of:
Kitchen 60 Litres / second
Utility 30 Litres / second
WC, Bathroom, En Suite 15 Litres / second
A min. 3 air changes / hour are required to each with a 15 minute over run to WC, bathroom, En Suite areas.
Vent Locations agreed on site.

All DOORS TO HABITABLE ROOMS TO ALL FLOORS, ONTO CIRCULATION AREAS, TO BE HALF HOUR SELF CLOSING FIRE DOORS.

