

320190346?



**BUILDING REGULATIONS NOTES**

**CONVERSION OF BARN 1**

**HOLLINS FARM**

**RIMMINGTON**

**FOR**

**MR and MRS SMITH**

**REF: 5029**  
**DATE: 25th FEBRUARY 2019**  
**VERSION: 1.02 (Amendment A – 29<sup>th</sup> March 2019)**

# CONVERSION OF BARN

## GENERAL

- 1
  - 1.1 • On stripping out the building, excavating and determining depth of existing foundation stones and any requirement for underpinning, the contractor is to set out and agree the finished ground and first floor levels with the architect and clients to ensure adequate headrooms.
  - 1.2 • Ref reinforced thickened out slab supporting new internal walls: This is subject to confirmation by the Structural Engineer on site investigation.
  - 1.3 • Makeup of the ground floor finish (including insulation, screed and applied floor finish) is to be agreed between the contractor, architect, client and underfloor heating installer to determine the finished level of the reinforced concrete slab (provisional) to ensure flush applied finish with differing applied finishes.

## GENERAL DEMOLITIONS

- 2
  - 2.1 • Any asbestos to be removed by an approved contractor and disposed of to a licensed tip.
  - 2.2 • Existing gutters, rain water pipes to be removed and carted away.
  - 2.3 • Existing doors and windows to be removed and carted away.
  - 2.4 • Existing timber framework / stud partitions / 100mm internal walls / boskins etc to be removed and carted away.
  - 2.5 • Existing first floor structure to be removed and carted away.
  - 2.6 • Existing grey slate removed and set aside for reuse, surplus carted away from site.
  - 2.7 • Roof trusses and purlins are to be retained where structurally sound – Any elements requiring replacement are to be in reclaimed materials - To Be Confirmed with the Structural Engineer on site inspection.  
Reference to replacement rafters is made in the ROOF (Existing Barn) Notes.
  - 2.8 • Existing ground floor slabs broken up and ground excavated to formation levels. Prior to mass excavation, trial holes are to be dug to determine depth of existing foundation stones, the contractor to then contact the Structural Engineer who is to carry out site investigation and advise on any additional propping / underpinning works to existing walls required to maintain the structural integrity of the building.
  - 2.9 • Existing internal utility services to be isolated and stripped out.

## EXISTING STONE WALLS

- 3
  - Loose stonework to top of walls along all eaves and verges to be made good, rebedding existing stones in sand / lime mortar (No cement).
- 4
  - All internal timber lintels to be inspected for structural integrity. Lintels cleaned down and treated / replaced with precast reinforced concrete lintels where required – extent of work to be assessed on site inspection.
- 5
  - Sections of pipework / steel beams / brickwork etc cut out from external walls and walls made good with matching stonework coursed into existing – extent of works to be assessed on site inspection.
- 6
  - Existing door surrounds adjusted as required to suit new floor levels – subject to finalising the finished floor levels.
- 7
  - Damaged stone heads / jambs / sills removed and replaced with reclaimed stone elements to match existing - extent of works to be assessed on site inspection.
- 8
  - Sections of brick / block to jambs of existing openings cut out and replaced with matching natural stone retained from the demolitions. Stone coursed into the existing and bedded in sand /lime mortar (No cement) – extent of works to be assessed on site inspection.
- 9
  - Section of existing walls cut out and window openings (WF06 & WF07) formed with natural sawn stone (blasted finish) sills, jambs and heads, 150 x 100mm precast concrete lintels internally, damp tray over, vertical and horizontal insulating DPCs.
- 10
  - Section of existing wall cut out and new window opening (WG07) formed all as before. Section of existing opening over built up in matching natural stone with dense concrete block backing.
- 11
  - Sections of existing walls at roof abutments cut out and Code 4 lead damp tray built in through thickness of wall, downstand zinc flashing as before to zinc roof abutment and Code 4 lead downstand flashing to slated roofs.
- 12
  - Section of external wall rebuilt off new foundation as before in existing stonework bedded in sand / lime mortar (No cement), stones coursed into existing. DPC at 150mm min above external ground level. Stonework coursed into existing.
- 13
  - External pointing raked out to all areas and joints repointed with sand / lime mortar (No cement). Sample to be applied and finished for approval prior to general application.
- 14
  - TV Lounge / Bedroom 2 / Grd Flr WC / Utility Room / Bedroom 1 En-suite / Airing / Home Office  
: Sections of walls cut out and door openings formed building up jambs of openings in 100mm dense concrete block with 150 x 100mm precast concrete lintels over. DPC to blockwork at ground floor level.  
Openings to suit 1981 x 838mm wide doors plus frames to grd flr and 1981 x 762mm wide door plus frame to first floor.
- 15
  - Dining Hall / Kitchen: Section of wall cut out to form increased door opening size to suit 1981 x 2no 838mm wide double doors plus frame. Jambs of openings built up in 100mm dense concrete block with 215 x 100mm precast concrete lintels over. DPC to blockwork.
- 16
  - Bedroom 2: Section of wall cut out, jambs of opening built up in dense concrete block incorporating DPC at low level. Steel beams Ref B11 B12 & B13 - --- x ---mm - --kg/m UBs built in on precast concrete padstones all to Structural Engineers details.  
Intumescent paint to beams to provide min 30min fire protection. Timber noggins and 12.5mm plasterboard encasement.

## EXISTING STONE WALLS cont

- 17** • Garden Room / Kitchen: Section of stone wall cut out jambs of openings built up in 100mm and 215mm dense concrete blockwork with DPC at low level and insulating vertical DPC at external door opening. Steel beams Ref B08 B09 & B10 - --- x ---mm - --kg/m UBs built in on precast concrete padstones all to Structural Engineers details below existing stone wall new block lining wall.  
Intumescent paint to beams to provide min 30min fire protection. Timber noggins and 12.5mm plasterboard encasement.
- 18** • Bedroom 1 / Stairwell / En-suite 1: Section of stone wall cut out. 100mm dense concrete block wall built up forming door opening into Bedroom 1 with 150 x 100mm precast concrete lintel over.  
Existing door opening in En-suite built up in 100 and 215mm dense concrete block forming wall recess (for shower bottles).  
Steel beams Ref B14 & B15 - --- x ---mm - --kg/m UBs on precast concrete padstones all to Structural Engineers details over opening at high level in existing external stone wall.  
Intumescent paint to beams to provide min 30min fire protection. Timber noggins and 12.5mm plasterboard encasement.
- 19** • Openings core drilled through external walls in Grd Flr WC, Kitchen En-suite and Utility Room for extract fan / ducts as before (Ref ELECTRICAL INSTALLATION) – positions to be agreed.
- 20** • Subject to fire appliance sizes (To Be Confirmed) Air bricks built into external walls with telescopic vents and 100mm uPVC ducts run under the floor slab to proprietary floor grilles in Dining Hall & Sitting Room to provide combustion air to fire appliances.  
Requirement for, position and sizes are To Be Agreed.

## NEW EXTERNAL WALLS

- 21** • Garden Room: Wall to gable: Built up off concrete strip foundation at 750mm min below ground level. Foundation 200mm thick projecting 200mm either side of supported wall. 200mm natural stone to match existing bedded in sand / lime mortar (No cement) 100mm dense concrete block backing, 110mm cavity insulated with 60mm Xtratherm partial fill cavity batts, 100mm dense concrete block internal skin. Stainless steel wall ties Ancon Staifix HRT4 (or similar and approved) built in at 750mm max crs horizontally and 450mm crs vertically. Visqueen Zedex CPT DPC to all skins with DPC to internal skin lapped and taped with DPM to floor slab as before.  
13mm 2no ct plaster finish internally.
- 22** • Garden Room: Wall return to Door Opening: All as above but with 215mm dense concrete block backing to stone skin, 200mm cavity & 215mm dense concrete block internal skin. Random stone jambs to door opening returned forming 600mm reveal to aluminium framed sliding doors.
- 23** • Wall below door (DG09) to Garden Room: Built up off concrete strip foundation as before. 215mm dense concrete block wall (inner face to be flush with inner face of aluminium door sill).
- 24** • Wall below door (DG01) / glazed screen to cart opening: 140mm dense concrete blockwork off thickened out slab as before and with sawn stone sill over on DPC lapped with DPM to floor slab. Top of stone sill weathered at angle of 1 in 20 down to flagged area.

## NEW INTERNAL WALLS

- 25** • Lining Walls: Sections of existing stone walls lined where indicated with 100mm dense concrete block built up off foundation / reinforced slab as before. Zedex DPCs at min 150mm above external ground levels lapped and taped with DPM to floor slab. 110mm cavity between existing stone walls with 60mm Xtratherm foil backed insulation cavity batts retained against lining wall with proprietary ties (insulation omitted at ground floor level to wall between TV Lounge / Garden Room & Dining Room / Kitchen. 150 x 100mm precast concrete lintels over openings. 13mm 2no ct plaster finish.
- 26** 26.1 • Internal cross wall / chimney breast / flues: Built up off strip foundation / reinforced slab as before. 100mm dense concrete blockwork. Chimney breast built up in 100mm dense concrete block (215mm to rear of fireplace opening) forming 1200 x 1000mm wide opening. Proprietary support plates / gather units / rc lintels. 300mm (To Be Confirmed) int dia Isokern pumice flue liners to Sitting Room and 200mm (To Be Confirmed) int dia Isokern pumice flue liners in Dining Hall complete with preformed flue entry kit for stove flue connection (To Be Agreed with the clients). Pumice liners with glued joints, enclosed in 100mm dense concrete block with min 100mm dense concrete block separating the flue pipes. Light expanded clay insulation to all voids between flue pipes / block surround. Proprietary stainless steel flue terminals with flashings a roof penetrations. Terminals to rise min 200mm above the stone ridge level. 150 x 100mm precast concrete lintels over door openings to Bedrooms. Steel beam Ref B01 - --- x ---mm - --kg/m UB over double door opening on precast concrete padstones all to Structural Engineers details. Intumescent paint to beam to provide min 30min fire protection. Timber noggins and 12.5mm plasterboard encasement. 13mm 2no ct plaster finish to blockwork.
- 26.2 • Provisional – To Be Agreed with the clients: 50mm sawn stone lining to fireplace opening, 50mm sawn stone hearth projecting 500mm in front of and min 150mm either side of opening. Sawn stone: Jambs 150 x 100mm with stop chamfer to inside corner (continuous with detail on head) 250 x 100mm head, 75 x 175mm moulded mantel - All To Detail.
- 27** • Internal Walls: 100mm dense concrete block load bearing walls built up off thickened out reinforced floor slab. 150 x 100mm precast concrete lintels over door opening and opening through into Bedroom. 13mm 2no ct plaster finish to blockwork.
- 28** • Internal Walls: 100mm dense concrete block none load bearing walls built up off floor slab. 150 x 100mm precast concrete lintels over door openings. 13mm 2no ct plaster finish to blockwork. Vertical DPC to back of block wall at step in floor levels lapped with DPM at both slab levels. 2no steps formed with 160mm risers (provisional subject to agreement of finished floor levels) with 250mm going.

## FIRST FLOOR / ROOF SUPPORTING STEELWORK

- 29** • Beams B02 & B03 – Sitting Room: --- x ---mm - --kg/m UBs either side of the chimney breast on precast concrete padstones all to Structural Engineers details. Beams built in below floor joists.  
Intumescent paint to beams to provide min 30min fire protection. Timber noggins and 12.5mm plasterboard encasement.
- 30** • Beam B04 – Dining Hall: --- x ---mm - --kg/m UB on precast concrete padstones all to Structural Engineers details. Beam built in in part floor depth.  
Intumescent paint to beam to provide min 30min fire protection. Timber noggins and 12.5mm plasterboard encasement.
- 31** • Beam B05 – Dining Hall: --- x ---mm - --kg/m UB on precast concrete padstones all to Structural Engineers details. Beam built in in floor depth.  
Intumescent paint to beam to provide min 30min fire protection. Timber noggins and 12.5mm plasterboard encasement.
- 32** • Beam B06 – Garden Room: --- x ---mm --kg/m UB on precast concrete padstones all to Structural Engineers details.  
Timber noggins to both sides of the beam with 18mm WBP plywood lining externally faced with powder coated aluminium matching the door assembly. Rockwool quilt packed between internal flanges. 12.5mm Gyproc Foil Backed plasterboard lining internally.
- 33** • Beam B07 – Garden Room: --- x ---mm - --kg/m UB on precast concrete padstones all to Structural Engineers details.  
Timber noggins between outer flanges of beam. 12.5mm Gyproc WallBoard lining to exposed face.

## GROUND FLOOR

- 34** 34.1 • uPVC ducts built in below and through the floor slab of Utility Room to accommodate electric / water / data / ground source heating. All duct sizes and positions to be agreed.
- 34.2 • 100mm uPVC ducts built in below and through the floor slab of Utility Room for connecting services to Garage (electric / water / data). All positions to be agreed.
- 34.3 • Provisional – Subject to confirmation by the Structural Engineer on investigation of the depth of existing foundation stones and confirmation of floor levels indicated:  
100mm well consolidated hardcore sub base to slab with concrete blinding to bearing ground below the thickened out areas. 200mm concrete slab reinforced with 2no layers of structural mesh, slab thickened out below external lining and internal load bearing block walls to additional depth of 200mm – All to Structural Engineers Details.
- 34.4 • Garden Room: As above but no thickening out of floor slab – Subject to confirmation by Structural Engineer.
- 34.5 • Visqueen High Performance DPM over the slab lapped and taped with DPCs to the new walls. 100mm Xtratherm foil backed insulation laid broken joint over the DPM.  
500 gauge polythene separating layer over the insulation with insulating foam membrane with polythene skirt taped to the separating membrane to all perimeter wall abutments to depth of the floor screed.
- 34.6 • 70mm fibre reinforced screed over the separating membrane. Screed incorporating underfloor heating pipes.
- 34.7 • Applied engineered floor boarding / tile floor finishes throughout (to be agreed with the clients) with flexible bonded fixing over screed.  
All applied timber floor finishes to be u/ f heating compatible, acclimatised and fitted in full accordance with manufacturer's instructions.  
All tiled areas to incorporate proprietary anti crack matting.

## GROUND FLOOR cont

34.8 • Provisional – Subject to confirmation:  
150mm step formed in floor slab from Dining Hall into WC TV Lounge and Bedroom 2.  
2no 160mm steps in floor level with 250mm in Boot Room down to floor level in Utility Room.

34.9 • Provisional – Subject to confirmation: Section of insulation reduced and screed depth increased to min 125mm below hearth to Dining Hall stove. 900 x 900mm sawn stone hearth fitted with chamfered top perimeter edge.

34.10 • Sitting Room: Section of insulation reduced and screed depth increased to min 125mm below hearth within fireplace opening to 550mm in front of and 150mm either side of jambs of opening.

## ROOF (EXISTING BARN)

35 35.1 • Subject to check by structural engineer roof truss and purlins are to be retained. All timbers to be cleaned down and treated.

35.2 • 100 x 75mm treated softwood wallplates tied down to new block walls with 30 x 5mm galvanised m/s ties at 1500mm crs.

35.3 • Provisionally - To be reviewed on stripping of the roof: New 100 x 50mm C16 rafters to all areas fixed at 400mm crs over existing purlins, ridge and new wallplates. Ends of rafters are to terminate in the external walls (no fascia boards) and are to be treated and wrapped in DPC material within wall thickness.  
Rafters parallel with walls are to be tied to wall structures with 30 x 5mm galvanised m/s ties. Ties run back over and fixed to min of 3no rafters. Solid timber packs fixed between rafters at tie positions. Rafters doubled up either side of all rooflights.

35.4 • Velux conservation roof windows: 2no to Kitchen, 2no to Landing, 1no to Bedroom 3 & 1no to Bathroom. Provisional size 1180 x 780mm (subject to check on purlin spacings) complete with central glazing bars, electrical operators with rain sensors, uncloak collars and flashings for flush installation (all rooflight details to be agreed with the clients prior to ordering).

35.5 • Valley gutter formed at abutment of roof slopes. Softwood carcassing over wall to fall to gable end with 18mm WBP plywood lining over to base and sides with corner fillets. Code 6 lead lining to gutter. Lead run up both roof pitches, dressed over battens and finished with welt. 2no PreTen Plus expansion joints to lead along the length of the gutter. 1no ct Patination oil to all leadwork.

35.6 • Code 4 lead flashing at step in the roofs to the south west elevation. 1no ct Patination oil to all leadwork.

35.7 • Stone slate (retained from demolitions and reclaimed to match existing supplied by the contractor - Provisionally contractor to allow for supply of slate to north east elevation of the main barn building – To be reviewed on stripping of the existing slate.  
Contractor to grade all slates to ensure even coursing. Slates fixed to 50 x 25mm tantalised battens over layer of permeable underlay.

35 .8 • Proprietary In-Line slate vents fitted in positions to be determined to terminate extract fans to 2no bathrooms and internal vent pipe.

## **ROOF (Garden Room)**

**36** 36.1 • 100 x 75mm timber wallplate to block inner skin tied down with 30 x 5mm galvanised ties and bolted to 2no steel beams at 600mm crs.

36.2 • 145 x 63mm C16 runner bolted to the existing wall.

36.3 • 145 x 63mm C16 roof joists at 400mm crs fixed to wall bearer and wall plates. Solid timber strutting between joists flush with the outside face of the aluminium door frame.

36.4 • 18mm WBP plywood screw fixed to joists. 2400mm length of boards fixed along length of joists. Boards fixed broken joint with 50 x 50mm timber battens screw fixed to both boards along any unsupported joints.

36.5 • 100 x 38mm treated timber runner fixed to wall abutments to receive Zinc upstand.

36.6 • Bitumen-backed aluminium foil vapour barrier fully bonded to the plywood deck. All joints lapped.

36.7 • 100mm Xtratherm foil backed insulation cut to tight fit between the joists above the line of the aluminium door frame.

36.8 • 108mm Metdeck (insulation / plywood deck) mechanically fixed in accordance with manufacturer's instructions. Metdeck terminated 160mm back from the fascia level.

36.9 • 2no part Utile stepped fascia: Top fascia fixed to timber runners which are to replace the insulation over a distance of 160mm back from the face of the fascia. 18mm WBP plywood fixed over – 5mm step formed between ply above and the top of the ply of the Metdeck to accommodate zinc apron and flashing detailing. The fascia is to run 20mm in front of face of stone and be faced with zinc. Lower fascia is to be stepped in to run flush between the jambs of the opening and faced with zinc.

36.10 • VMZINC PLUS Standing Seam zinc roof finish with secret fixings over VMZINC Membrane. Drip formed into VMZINC box gutter. Oversailing zinc verge detail. Zinc upstand at wall abutments with Zinc cover capping over the timber abutment runner as before dressed into the wall below the damp tray, secured with clips

36.11 • 19mm V jointed T & G Utile boarding to soffit (fascia to aluminium door frame).

## **37 RAIN WATER GOODS (Existing Barn)**

37.1 • Cast aluminium gutters to all eaves fixed to drive in rise and fall brackets. Cast aluminium rain water pipes discharging into surface water system via trapped access gullies as before.

37.2 • VMZINC box gutter with fascia brackets. With zinc rwp discharging into trapped access gully as before.

## FIRST FLOOR

- 38**     38.1 • 195 x 75mm C16 joists at 400mm crs over Bedroom 2 / En-suite & TV Lounge & 170 x 50mm C16 joists at 400mm crs to all other areas (joist depth allows for notching out for the underfloor heating pipes). Solid timber strutting between joists at mid span positions.  
Joists parallel with walls tied to blockwork with 30 x 5mm galvanised m/s ties. Ties run back over and tied to min of 3no joists. Solid timber strutting between joists at tie positions.  
Joists doubled up and bolted together forming trimmers to stairwell.  
Min headroom above pitch line of stairs to be 2000mm.
- 38.2 • 50 x 25mm battens fixed to sides of floor joists, 9mm WBP plywood fixed over battens  
50mm Xtratherm foil backed insulation batts over plywood cut to tight fit between tie members and 20mm biscuit mix, sand (8) cement (1) screed laid over underfloor heating pipes level with top of joists.
- 38.3 • Bathroom & En-suite: 18mm WBP plywood sheets fixed to joists with countersunk screws at 200mm crs. 2440mm dimension of boards fixed along line of joists. Tile (to be agreed with clients) floor finish over incorporating anti-cracking mats fixed with flexible adhesive.
- 38.4 • Home Office & Landing: Engineered oak floor boarding (to be agreed with the clients) fixed to joists in accordance with manufactures instructions. Solid matching oak nosings to stairwell.  
All applied timber floor finishes to be u/ f heating compatible, acclimatised and fitted in full accordance with manufacturer's instructions.
- 38.5 • Bedrooms: 22mm moisture resistance T & G flooring grade chipboard with glued and screwed joints for carpet finish over (Areas to be confirmed with the clients).
- 38.6 • 100mm Rockwool Quilt fitted between all joists below ply boarding.

## GROUND FLOOR CEILINGS

- 39**     • Bed 2 / En-suite 2 / WC / Dining Hall /TV Lounge / Sitting Room: 12.5mm Gyproc Wallboard lining to underside of floor joists, scrimmed joints, plaster skim finish including to beam downstands in Dining Hall & Sitting Room.
- 40**     40.1 • Kitchen & Utility Room 70mm Kingspan Kooltherm K7 insulation batts cut to tight fit between rafters (maintaining 25mm for tenting of slate underlay).  
Kingspan Kooltherm K18 Dry Lining Board comprising 12.5mm plasterboard bonded to 25mm phenolic insulation board screw fixed to underside of rafters, scrimmed joints and plaster skim finish. Boards fixed with long edges running across the rafters and with 50 x 50mm treated noggins fixed between the rafters.
- 40.2 • 100 x 50mm C16 joists at 400mm crs between top purlin and new bearer bolted to wall. 12.5mm Gyproc Wallboard lining, scrimmed joints, plaster skim finish.
- 41**     • Boot Room & Pantry: 100 x 50mm C16 runners bolted to new block walls. 120 x 50mm C16 joists at 400mm crs between runners. 18mm flooring grade chipboard over.  
12.5mm Gyproc Wallboard lining, scrimmed joints, plaster skim finish.
- 42**     • Garden Room: 150 x 50mm C16 bearer bolted to existing wall. 150 x 50mm C16 ceiling joists at 400mm crs between existing wall and intermediate steel beam (Ref B07).  
12.5mm Gyproc WallBoard to underside of exposed rafters (between beams Ref B06 & B07) and underside of suspended ceiling joists, scrimmed joints, plaster skim finish.
- 43**     • Staircase soffit: 12.5mm plasterboard linings to underside, scrimmed joints, plaster skim finish.

## FIRST FLOOR CEILINGS

- 44 • All First Floor (Except Bathroom & En-suite 1): 70mm Kingspan Kooltherm K7 insulation batts cut to tight fit between rafters (maintaining 25mm for tenting of slate underlay). Kingspan Kooltherm K18 Dry Lining Board comprising 12.5mm plasterboard bonded to 25mm phenolic insulation board screw fixed to underside of rafters, scrimmed joints and plaster skim finish. Boards fixed with long edges running across the rafters and with 50 x 50mm treated noggins fixed between the rafters.
- 45 • Bathroom & En-suite: 120 x 50mm C16 runner bolted to existing wall (En-suite 1). 120 x 50mm C16 joists at 400mm crs between runner and between stud partitions. 12.5mm Gyproc Wallboard lining, scrimmed joints, plaster skim finish.
- 46 • Entrance (cart opening): 19mm V jointed T & G Utile boarding to underside of rafters.

## STUD PARTITIONS / DUCTS

- 47 • Stud partition Bedrooms 2 & 3: 100 x 50mm timber studs at 400mm crs. Rockwool RW3 sound deadening slabs 75mm thick cut to tight fit between all studs. 1no layer 15mm Gyproc SoundBloc Plasterboard each side, scrimmed joints and plaster skim finish.
- 48 • Stud partition Bathroom & En-suite 1: 100 x 50mm timber studs at 400mm crs. Rockwool RW3 sound deadening slabs 75mm thick cut to tight fit between all studs. 1no layer 15mm Gyproc SoundBloc Plasterboard to landing side, scrimmed joints and plaster skim finish. 12mm Wedi Tile Backer Board lining to En-suite sides.
- 49 49.1 • Grd Flr WC & En-suite 1: Ducts formed to rear of wash basin & wc to height of 1200mm (provisional – to be agreed with the clients) in softwood carcassing lined with Wedi Tile Backer board as before.
- 49.2 • En-suite 1: Duct to rear of shower constructed as before to ceiling level.
- 50 • Kitchen: Duct to soil pipe constructed in softwood carcassing lined with 2no layers 12.5mm plasterboard, scrimmed joints, plaster skim finish. Rockwool quilt packed tight around the soil pipe.

## ADDITIONAL INTERNAL WALL FINISHES

- 51 • Sections of unlined stone walls at ground floor level and all existing stone reveals to windows & door openings: Walls lined with proprietary dimpled waterproof membrane fixed with proprietary plugs. 50 x 25mm tanalised battens screw fixed to the plugs. 25mm Xtratherm foil backed insulation between battens, 12.5mm Gyproc WallBoard fixed to battens, scrimmed joints, plaster skim finish. 2no lines of battens fixed above floor level for fixing of the skirting boards.
- 52 • Sections of unlined stone walls at first floor level: Stonework cleaned down, dubbed out in sand cement render and finished in 2no ct plaster.
- 53 • To Be Agreed with the clients: Sections of existing stone walls to be left exposed, pointing raked out and joints repointed with sand / lime mortar (No cement) as for the external walls)
- 54 • WC / WHB ducts and walls to Bathroom and En-suites 1 & 2: All tiled – To Be Agreed with the clients.

## JOINERY

- 55** • Oak (To Be Agreed with the Clients) staircase 850mm clear width between face of handrails.  
14no equal risers at approx 194mm (subject to site check of total overall rise on agreement of finished floor levels) with 250mm goings to treads.  
Oak newel posts with handrails at height of 900mm above pitch line of stairs and above landings floor level. Oak infill balusters at 99mm max spacings. Min headroom to be 2000mm.
- 56** **Skirting Boards**  
• 150 x 19mm preprimed moulded (To Be Agreed with the clients) MDF skirting boards with polished edges.
- 57** **Internal doors**  
57.1 • 38mm rebated softwood frames complete 22mm preprimed moulded (To Be Agreed with the clients) MDF architraves with polished edges.  
Standard internal timber doors complete with ironmongery (All To Be Agreed with the clients) 1981 x 838mm to ground floor and 1981 x 762mm to first floor.  
  
57.2 • 1981 x 838mm double doors to Dining Hall / Kitchen with fully glazed toughened glass (To Be Agreed with the clients).  
  
57.3 • 1981 x 762mm double doors to Dining Hall / Sitting Room with fully glazed toughened glass panels (To Be Agreed with the clients).  
  
57.4 • 1650 x 686mm double doors to Airing Cupboard.
- A58** **Windows**  
• Utile (for paint finish) window frames complete with weather seals, trickle vents and ironmongery to be agreed with the clients - Note: WF01 to include opening restrictor. Opening lights to comply with Building Regulations Part B "Means of Escape". 28mm internally glazed sealed double glazed units with 16mm argon filled cavities, warm edge spacers, spacer bars on line of bonded glazing bars. Ground Floor windows to have laminated glass externally with Low E toughened glass internally – First Floor windows to have Low E glass toughened internally – and toughened glass externally.  
Window WF01 to have patterned glass (Min level 3 on Pilkington Glass scale).  
Intermediate glazing bars bonded internally and externally to glazing.  
  
Fixed Light Windows: WG01 WG02 WF04 WF05  
  
Top Hung Opening Windows: WG03 WF01 WF03 WF06.  
  
Side hung openers with rebated meeting stiles (no fixed mullion): WG05 WG06 WG07  
  
Fixed Light & Top Opening Windows: WF02  
  
**NOTE:** All window designs are to be agreed with the clients. Any modification from those indicated must incorporate opening lights complying with Building Regulations Part B "Means of Escape" to windows in ALL habitable rooms – Designs to be agreed with the Building Control Officer prior to manufacture.
- 59** **WINDOW OPENINGS**  
• WG04 & WF08 Utile frame with utile framed vertically boarded infill panels.
- 60** **Windows**  
Internally to TV Lounge & Sitting Room: Utile framed fixed light casements with toughened glass panes.

## JOINERY cont

### 61 External Doors

- Cart Opening Ref DG01: Painted Utile frame incorporating glazed side lights, transom masking panel to first floor depth, glazed top lights, weather seals to door rebates and low access threshold.

Utile framed and vertically boarded (internally and externally) entrance door, storey height x 900mm wide complete with s/s hinges, multi-point insurance approved espangolette locking system with integral latch & handles.

Internally glazed 28mm sealed double glazed units with laminated external panes / toughened Low E internal panes at ground floor level (Laminated toughened glass internally at first floor level confirming to horizontal balustrade load requirements).

- Boot Room Ref DG07 & Home Office Ref DF01: Painted Utile frames incorporating weather seals to door rebates and traditional threshold.

Utile framed and vertically V jointed T & G boarded (internally and externally) doors complete with s/s hinges, multi-point insurance approved espangolette locking systems with integral latches & handles.

Internally glazed 28mm sealed double glazed units to top with laminated external panes / toughened Low E internal pane.

- Pantry and Utility Room Ref DG06 & DG08: Painted Utile frames incorporating mock door (glazed top and boarded bottom panels as before).

- Sitting Room Ref DG03: Painted Utile frame incorporating mock doors fully glazed (double glazed units) as before with laminated external panes.

- Grd Flr WC Ref DG02: Painted Utile frame. Stable type door with fixed lower section vertically boarded as before and with top hung opening light double glazed (as before with laminated external pane) top section complete with ironmongery.

- Bedroom 2 Ref DG10: Painted Utile frame. Stable type door with fixed lower section vertically boarded as before and with top hung opening light double glazed (as before with laminated external pane) top section (for emergency escape) complete with ironmongery.

- Sitting Room Ref DG04 & DG05: Window frames as before with top hung openers.

### 62 Cupboards

- Constructed to enclose heating manifolds (To Be Agreed).

### 63 Kitchen / Utility / Pantry

- Fit out by others.

## ALUMINIUM DOORS

- Garden Room Ref DG09: Powder coated (RAL7016 – To Be Confirmed) aluminium frames incorporating Polyamide thermal breaks.

Construction and weather seals to provide severe weather rating to BS6375-1:2004

Frames are to be glazed internally with 28mm double glazed units in toughened Planitherm One glass internally, laminated glass externally, argon filled cavities and warm edge spacers to provide max U value of 1.2.

Slimline trickle vents in accordance with building regulations.

Insurance approved locking system.

Brushed stainless steel ironmongery all to client's approval including insurance approved locking systems and friction hinges.

Matching powder coated aluminium facing externally to steel beam over as before.

## **FIRE APPLIANCE**

- 65 • Dining Hall: Multi fuel burning stove installed complete with metal flue connection into dedicated main flue in chimney breast. Installation (including provision of carbon monoxide detector), commissioning and certification all by HETAS approved contractor.
- 66 • Sitting Room: To Be Agreed with the clients.

## **UNDERGROUND DRAINAGE**

- 67 • Proprietary polypropylene / concrete inspection chambers on concrete bases and with granular surround (concrete to vehicle areas) and cover.  
Light duty frames and covers to pedestrian areas. Heavy duty frames and covers to vehicle areas and in the field.  
100mm uPVC drainage pipe connection into new site foul drainage installation connecting into new sewage treatment plant (foul) and soakaway (surface water) - Ref Drainage Plan
- 68 • Trapped access gullies to take rain water pipe discharge. 100mm uPVC drainage connections into the site surface water drainage system – Ref Drainage Plan.
- 69 • Trapped access gullies to take wastes from Kitchen and Utility Room . 100mm uPVC drainage connection into new inspection chamber.
- 70 • Aco drainage channel with Heelsafe grating to front of cart opening. 100mm connection into surface water drainage system.

## **EXTERNAL STAIRCASE**

### **ITEM REF**

- 71 • Galvanised steel staircase with plate strings and chequer plate treads and risers (12no at approx. 210mm with 250mm goings). PFC framed landing with chequer plate deck bolted to wall and with RHS plated and bolted to concrete base – All to Structural Engineers specification.  
Steel handrails at height of 900mm above pitch line and landing, intermediate base rail with intermediate infill balusters. All openings between balusters, rails treads and risers to be 99mm max.

## **MECHANICAL INSTALLATION**

### **ITEM REF**

#### **72 Heating & DHW / DCW Installations**

- The heating and hot water systems will be served by a new ground source heat system that is to be designed, installed, tested and commissioned by a specialist company. Full installation details are to be submitted by the heating specialist to the local authority for approval prior to installation.  
The installation is to be fully commissioned and compliance certificate(s) submitted to the local authority and compliance certificate(s) and operating manual handed to the client.
- Space heating provided by underfloor heating pipes at ground and first floor. Manifold positions and min cupboard sizes required to contain the fittings are to be agreed between the clients, general contractor and specialist heating contractor prior to commencement of the works.
- Dual fuel towel radiators fitted to Grd Flr WC Bedrooms 1 & 2 En-suites and to Bathroom.

## MECHANICAL INSTALLATION cont

### ITEM REF

• The mechanical contractor is to design, supply, install, test and commission a new hot and cold water distribution system as follows to provide and install the following subject to agreement with the clients:

- a) Unvented pressurised hot water storage cylinder (with electric back up immersion heater) positioned in the Utility Room complete with primary connections to the boiler.
- b) Secondary pumped hot water circuit to provide instant (temperature limited as required) hot water at all fittings as required.
- c) Cold water installation pipework from the mains in the Utility Room to all appliances and fittings as required including 2no external mounted taps with anti-back flow valves and internal isolating valves.
- d) The installations are to be in copper tube complete with full bore Isolation valves prior to final connections to all fittings & appliances. Hot water pipe runs are to be fully insulated to prevent heat loss and heat transfer to cold water pipes.

### 73 Plumbing Wastes

73.1 • 100mm uPVC stub stack in duct in Grd Flr WC with air admittance valve over.

73.2 • 100mm uPVC soil pipe run in duct in Kitchen through wall and into wc duct in Bedroom 1 En-suite.

73.3 • 75mm uPVC vent pipe run up through stud partition between Bedroom 1 En-suite and Bathroom and terminate with In-line roof vent as before.

73.4 • Grd Flr WC:

WC: Pan connector and 100mm uPVC connection into soil pipe in duct as before.

WHB: Anti-syphon trap and 32mm uPVC waste connection into stub stack pipe in duct as before.

73.5 • En-suite 1:

WC: Pan connector and 100mm uPVC connection into soil pipe in duct as before.

WHB: Anti-syphon trap and 32mm uPVC waste connection into soil pipe in duct as before.

Shower: Anti-syphon shower trap with removable dip tube and 50mm uPVC waste connection through floor void into soil pipe as before.

73.6 • En-suite 2:

WC: Pan connector and 100mm uPVC waste connection into drain run below slab.

WHB: Anti syphon trap and 32mm uPVC waste connected into branch on underground drain run.

Shower: Anti syphon shower trap with removable dip tube and 50mm uPVC waste connected into branch on underground drain run.

73.7 • Bathroom:

WC: Pan connector and 100mm uPVC waste connection into soil pipe in duct as before.

WHB: Anti-syphon trap and 32mm uPVC waste connection into soil pipe in duct as before

Shower: Anti-syphon shower trap with removable dip tube and 50mm uPVC waste run through floor void and wall cavity and connected into soil pipe as before.

Bath: Anti-syphon bath trap with 38mm uPVC waste connection into soil pipe in duct as before

## MECHANICAL INSTALLATION cont

### ITEM REF

#### 73.8 • Kitchen:

Sink: 50mm waste connection run through wall into trapped access gully as before. 38mm uPVC branch with anti-syphon trap to sink unit – 38mm uPVC branch with running trap for dishwasher waste.

Island Unit (provisional): 50mm waste connection run through insulation below screed into trapped access gully as before. 38mm uPVC branch with anti-syphon trap to sink.

#### 73.9 • Utility Room:

Washing Machine: Running P trap with 38mm uPVC waste run through wall and connected into trapped access gully as before.

## ELECTRICAL INSTALLATION

### ITEM REF

74 74.1 • All electrical works are to be designed by the contractor and carried out in accordance with the current edition of the IEE Wiring Regulations by a NICEIC Registered contractor. On completion of the installation the electrical contractor is to provide a completed and signed electrical test certificate for the works undertaken.  
The electrical contractor is to allow for closely liaising with client and kitchen supplier / installer to agree and co-ordinate all of the cable runs and switch / socket positions.

74.2 • Electrical main, meters and isolating switch to be positioned in new Utility Room. New electric installations run from MCB / RCB distribution unit to all fittings (To Be Agreed with the Clients) and to include but not restricted to:

- General Power outlets.
- General internal and external lighting incorporating energy efficient lighting and Lutron control.
- Low voltage extract fans (15ltrs/sec) to Bathroom and Bedroom 1 En-suite complete with humidistat controllers. 100mm insulated flexible ducts to slate vents as before.
- Low voltage wall mounted extract fans 15ltrs/sec to Grd Flr WC and Bedroom 2 En-suite and 30ltrs/sec to Utility Room complete with remote transformers. Bedroom 2 En-suite wired to operate on the room light circuit with delayed action switch off. Grd Flr WC to operate with wall controller. 100mm uPVC wall ducts with weatherproof external grilles (black).
- Supplies and connections to electrical operators for 6no rooflights (provisional).
- Supply and connection to wall mounted cooker extract to Kitchen (30ltrs sec) on duct as before complete with controller all supplied by Kitchen specialist.
- Supplies and connections to duel fuel towel rads.
- Dedicated supplies and connections to cooker / hob unit.
- Supplies to and connections associated with heating installation: manifolds / controllers / Cylinder immersion.
- Smoke / heat detectors / alarms in accordance with BS 5839 Part 6 installed on all levels in appropriate areas. Fittings to be interconnected, wired back on dedicated circuit and have battery back - up.

## RETAINING WALL

### ITEM REF

75 • New stone faced retaining wall to Structural Engineers details complete with 100mm land drain with granular backfill all wrapped in construction grade geotextile membrane. Drain connected into new surface water installation.

