GENERAL NOTES

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1. All drainage to be to the satisfaction of the local authority

2. All under ground drainage to be upvc laid in accordance with manufacturers instructions and to gradients stipulated by Scottish Water

3. All electrical work to comply with BS 7671:2008 and 18th edition of IEE Regulations

4. All windows to be UPVC and fitted with suitable hinges to allow opening handles to be below 1700mm from floor level all glazing to comply with BS6262 Part 4 :2004
   All glazing below 800mm to be to BS6262.

5. All windows to be fitted with perma-vents

6. All structural timbers to be C16 or C24 preasure treated with an approved preservative

7. Soil vent pipes to be terminated using a Durgo valve with the exception of the vent at the head of drain this to be left open vented

8. All D.P.C.`s to be a minium of 150mm above finished ground level

9. All sinks and wash basins to be fitted with 75mm deep seal traps

10. Gutters to be Marley deep flow 110mm dia connected to underground drainage system by 65mm diameter downpipes colour brown

11. All manholes to constructed to B.S. 8301.

12. All windows to be fitted with 38 x 50mm treated timber cavity barriers wraped with D.P.C.and nailed to timber frame

13. Cavity barriers to be fitted to exterior of timber frame at junctions with other cavities and roof space

14. Dpc to be provided at all cills, jambs and thresholds. Horizontal dpc to be a min of 150mm above ground level. Horizontal DPC to be provided where new cavity walls abut existing external walls insulated dpc to be used in areas of cold bridging

15. All wall ties to be stainless steel to BS 1449 Part 4: 1975

16. All holding down straps to be minimum of 30 x 5 x 900mm long stainless steel from an approved supplier, screw fixed to frame with 3 No 12x50mm screws and provided at 1200mm CRS maximum, once bent and cast into foundation

17. All roof trusses to be T.R.A.D.A. approved design and fitted and braced in accordance with manufacturers requirements and current code of practice

18. All timber framing details to be in accordance with T.R.A.D.A design guides

19. external brickwork skin to have weep vents fitted at ground and mid floor levels and at head of wall at 440 crs
    Mini-vent or equal to be installed to provide equivalent of an open brick perpend every 1500mm (max) positioned immediately above every horizontal dpc.
    All clearance gaps at eaves and verges referred to in details to be filled with compressible material and pointed with silicone mastic.

20. ENERGY CONSERVATION

    All light fittings to be LED or low energy type

21. Access to Manual Controls
    Electrical fixtures
    outlets and controls should be positioned at least 350 mm from any internal corner
    light switches to be positioned between 900mm and 1100mm above floor level
    sockets and other service points to be positioned at least 400mm above floor level
    sockets positioned above worktops to be a min of 150mm above same
    Access to Manual Controls
    Windows,rooflights, and ventilators
    Controls for windows,rooflights ,etc should be positioned at least 350mm from any internal corner and at a height of not more than 1700mm above floor level and not more than 1500mm above floor level if obstructed by kitchen base units

22. All work to comply with the Building (Scotland) Regulations and amendment Regulations current at time of application. Do not scale from drawings. Only written dimensions to be respected. Where applicable all dimension to be verified on site.

23. Electrical installation to be in accordance with the current edition of the I.E.E Regulations and amendment regulations current at the time of application and in accordance with BS7671

24. It is the responsibility of the main contractor to coordinate all components (doors, windows, etc) with relevant structural openings.

25. All foundations, underpinning and down takings to be carried out in strict accordance with the structural engineers details ALL PROPING TO BE APPROVED BY STRUCTURAL ENGINEER PRIOR TO WORK COMMENCING

26. These drawings are for the purpose of obtaining Building Warrant Approval only and as such all dimensions should be site checked prior to manufacture.

ELECTRICS

Electrical works to be contractors design

electrical legend

- twin 13 amp power points
- switch
- (P) pendant light
- (SD) hard wired smoke detector
- (HD) hard wired heat detector
- (DL) low voltage fire rated LED downlighter
- (L) luminaire fitting ip55
- (ME) mechanical extract fan 30 lt/sec
- (CE) carbon monoxide detector

DOWN TAKINGS (existing conservatory and lean to roof)

All demolition work to be carried out in accordance with BS 6187 Building OperationsRegulations and Health Safety at Work Act .
existing materials Brick, Roofing tiles and timbers to be seperated for disposal
Any asbestos material should be identified and removed in accordance with the current Asbestos Regulations and Codes of Practice

FLAT ROOF CONSTRUCTION (EDPM warm roof)

Firestone rubber gaurd EDPM LSFR roofing membrane applied as per manufacturers instructions
min thickness 1.5mm, complete with all pre formed trims and necessary upstands,and fixed with RubberCover bonding adhesive to Firestone Resista AK-RF high performance PIR insulation boards 120mm thick.
Boards to be laid staggered bond and to be screwed to deck with suitable number of fixings for local wind uplift .
All boards to be branded side up and laid on same day as EDPM to avoid damp boards and de-lamination.
Additional fixings to be installed at perimiter of roof as per manufacturers instructions, in addition to mechanical fixings insulation boards to be bonded to Firestone Vapour Barrier with Firestone Insulation Adhesive
Firestone Vapour Barrier to be on Firestone Vapour Barrier Primer on 16mm OSB sheathing ply
on existing 16mm sarking boards fixed with suitable screws into existing joists max 150mm spacing
On existing softwood firing pieces with 50 x 25mm fall on existing 200 x 50 roof joists at 400mm CRS
Additional full depth dwangs to be provided at 1/3 rd span , ceiling finish to be 2 coats gyproc board primer on 12mm gyproc tappered edge plasterboard joints to be taped and filled on 1 layer
1200 gauge visqueen vapour barrier stapled to u/s of joists with joints lapped 150 mm and taped
Existing joists to be securely fixed at wall head with stainless steel truss clips and every existing 3rd joist to be securely fixed to brickwork with stainless steel holding down straps 800 x 33 x 1.2mm

UNDER-BUILDING CONSTRUCTION (garage door infill)

100 mm dense concrete blocks min strength of 7N/mm2 with 62 mm cavity
filled to ground level with lean mix concrete and inner leaf of
100mm dense concrete blockwork 7N/mm2 wall to be centered on found

EXTERNAL WALL CONSTRUCTION (garage door build up only)

6 mm wet dash render to match existing on 100 mm concrete blockwork 7N/mm2
joints raked to take render scratch coat as work proceeds
wall to be constructed to provide 62mm cavity.(50 mm from sheething ply to outer leaf)
Inner leaf to be constructed of 1 layer YBS Breather Foil FR
with 75mm open lap joints to allow escape of moisture stapled
to 12mm exterior grade sheathing plywood
on 100 x 50mm treated c16 softwood framing at 600mm CRS,frame to
have double top and bottom rails and 2No dwangs spaced vertically within height
and finished internally with 62 mm Kooltherm K18 tapered edge insulated plasterboard screwed to framing at 150mm CRS with 1200 gauge visqueen vapour barrier behind same
all joints to be taped and filled, boards to
be finished with 2 coats gyproc board primer.
Frame to be insulated with 100mm rigid insulation board Kooltherm K12
Fix stainless steel anchor straps 900mm long and 30mm wide to studs of timber kit at 1200mm crs
Provide and fix Catnic BT2-4 stainless steel wall ties to new wall
construction at 225 mm crs vertically and 600mmcrs horizontally ties to be fixed direct to studs thro sheathing ply. Wall tie spacing to be decreased around openings to provide ties at 225mm vertically and 150mm from discontinuities
New blockwork to be tied to existing with Catnic Stronghold Wall Conector or equal stainless steel fixings with ties bedded every third course
New frame to be bolted to existing wall with M8 dia 125mm long hamma fix bolts anchor bolts at 400mm crs ,provide full height vertical DPC at junction of new and existing walls
50 x 50mm treated softwood cavity fire stops complete with DPC to be fitted to frame at ceiling level,corners and aroud all windows and door openings.
Cavity to external wall to be ventilated by removing a brick from existing base course and installing a 215 x 65mm fai at 1800 mm crs

NEW EXTERNAL WALL LININGS

form new internal framing to existing brickwork walls with 100 x 50 mm treated softwood framing at 600mm crs complete with top and bottom rails and intermediate dwangs, and 12mm OSB ply with 1 layer YBS breather foil on sheathing(frame to be constructed in sections and tied to existing walls with stainless steel frame ties at each panel joint.
frame to be insulated with 100 mm kingspan K12 ridgid insulation board and over clad with 62mm Kingspan Kooltherm K118 insulated plasterboard on 1 layer visqueen 1200 gauge vapour barrier plasterboard joints to be taped and filled and boards to be finished with 2 coats gyproc primer for paint
perpend joints to be cut out in existing facing brick base course at 1200mm crs to take new perp weep vents

AIR INFILTRATION

Air infiltration to be limited by means of
a) sealing dry lining junctions between walls, ceilings and floors at window, door and roofspace openings.
b) draft stripping of windows, door and rooflights.

TIMBER FRAME

Timber kit detailing and design to be carried out in accordance with NHBC & TRADA guidelines, current British/European Standards and codes of Practice and in accordance with Structural Engineers Design Specification.
All structural timbers to be treated against insect and fungal attack using Vac-Vac or similar process.
All fixings and hangers to be galvanised or stainless steel.
All dimensions and layout details to be confirmed against substructure asbuilt sizes and details and Structural Engineer's design and specification prior to fabrication.

TIMBER FRAME PANELS

100x50mm C16 timber studs at max 600mm crs to timber frame panels clad with 12mm exterior grade sheathing plywood securred to the studs with 33.5mm x 6.5mm galvanised nails at max 150mm centres of perimeter plywood and max 300mm elsewhere. Dwangs to be provided at 1 third and second third height of all studs. Double runner at bottom of panel and double header at top. Damp proof course to be provided around all firestops, cavity tray dpc along all horizontal fire stops to shed water to perrend vents.

OPENINGS IN TIMBER FRAME PANELS

2 no 200x50mm C16 timber lintols nailed together at 400mm crs supported at each end on 2no 100x45mm cripple studs nailed together at 450mm crs vertically.

INTERNAL PARTITION CONSTRUCTION

12 mm tapered edge plasterboard both sides on 100 x 50 mm treated timber framing at 600mm crs wall around toilet to be insulated with mineral wool insulation quilt to give sound reduction of 53 db

INTERNAL RACKING PARTITION CONSTRUCTION

12 mm tapered edge plasterboard both sides on 9.5mm ext grade plywood sheething one sides on 100 x 50 mm treated timber framing at 600mm crs

STRAPS & CLIPS

The timber frame is to be secured to the substructure walls using 30mm x 3mm x min 1000m long once bent galvanised or stainless steel straps at intervals not exceeding 1.8m centres and either side of all openings and at corners of building.
Straps must extend down wall 450mm below underside of sole plate and built at least 50mm into external leaf at their bottom end.

GROUND BEARING FLOOR CONSTRUCTION (existing garagre floor)

22 mm moisture resistant chipboard flooring on 80 mm Kingspan Thermafloor TF70 to take up existing floor differential of 100mm
Existing concrete floor to be cleaned to remove any oil or greasy deposits as per manufacturer instruction to take 2 coats Safeguard Drybase liquid applied DPM
A min dry film thickness of 0.6mm to comply with CP 102:1973
Damp proof membrane to be taken up existing inner face of brickwork outer leaf by min of 1000mm

FOUNDATION CONSTRUCTION

Foundations to be excavated and constructed in accordance with British Standards, any soft or unsuitable material encountered at formation level should be removed and replaced with granular fill or lean mix concrete.
Foundation concrete to be grade C35 to BS8110 with minimum cement content of 300kg/m3, 20mm nominal aggregate to be used
Foundation excavations should be dry and sealed at earliest after excavation and inspection
foundation to be reinforced with 1 layer A393 steel mesh fabric, joints to be laped 450 mm
Base of foundation to be minimum of 600mm below finished ground level
New foundation to be dowled to existing founds with 12mmdia re-bar fixed with resin and embeded min 150 mm

NOTE

All walls to be centered on foundations with 150 mm min scarcement
All concrete to be
Design sulphate class(DS) : DS-1
ACEC Class (ACEC) : AC- 1S
Concrete Designation : C28/35

WINDOWS:

To be PVCu reinforced double glazed units (anthracite finished externally - white internally) with 16mm air gap and emissivity value of 0.12 between panes fitted complete with all necessary sub frames, pre cast sills, DPC's etc....

Frame sizes:-
Sizes to be confirmed on site prior to manufacture or order.
Allow for cripple stud at jambs of opening and for 2 No 200 x 45mm SW timbers Grade c16 over openings, and pre-stressed concrete lintel for external brickwork
Vertical DPC to project 25mm into cavity beyond fire stop/cavity closer and to be returned into window frame rebate.

Windows to be manufactured to meet reqd. U value of 1.20W/m2 k and a requirement of 1/30th of floor area for ventilation and 1/15th for daylighting.
Trickle vents to be fitted to windows and/or doors of rooms to provide ventilation as follows.
Livingroom, lounge, dining, bedrooms - 12,000mm2
Kitchen, utilityroom, bathrooms -10,000m²

EXTERNAL DOORS:

French doors to be PVCu reinforced double glazed units (white finished externally- white internally) with 16mm air gap and emissivity value of 0.12 between panes fitted complete with all necessary sub frames, DPC's etc....
Frame sizes:-
Sizes to be confirmed on site prior to manufacture or order.
External glass to be laminated to comply with secure by design requirements PAS 24 and BS 7950 (1997)
Ensure min. 150mm end rest to lintels.
Vertical DPC to project 25mm into cavity beyond fire stop/cavity closer and to be returned into door frame rebate.

Doors to be manufactured to meet reqd. U value of 1.20W/m2 K and to be fitted with toughened glass to B.S. 6262 Part 4: 1994: Class A complete with all sub frames, ironmongery etc...

Door to be certified to PAS24-2012 standard and BS 7412:2007 for PVC-U extruded profiles

ELECTRICAL:

Supply and install electrical fittings by MK (or equal and approved) as follows.
13 amp twin flush switched socket plates complete with back boxes.
10 amp flush plate switches complete with back boxes.
Pendant light sets incorporating heat resistant lamp holder, PVCu insulated flexi cable and ceiling rose.
Downlighters as specified by client.
Wireing to new light points, switch points, 13 amp twin socket points, extract fan, etc....as follows
Wiring to lighting circuit to be 1.5mm2 twin and earth PVCu insulated cable.
Wiring to socket circuit to be 2.5mm2 twin and earth PVCu insulated.
Smoke and heat detectors throughout property to be interlinked and hard wired permanently to a circuit with battery back up
All electrical works to be designed, installed, tested and certified in accordance with B.S. 7671: 2008 and the 18th Editions on the I.E.E. Regs and amendments.

DRAINAGE

Supply and fit new 110mm dia. PVCu gutters and 65mm dia. PVCu downpipes and connect to new/existing 110mm dia PVCu underground surface water pipes.

Underground drainage pipes to be laid to gradient of 1:40 in pea gravel or similar bedding with trenches backfilled with selected excavated material.
Rodding points to be provided at end of each line of drainage as shown on plan.
Provide new manholes at change of direction at at either end of extension where pipe passes through underbuilding
Where pipes pass through wall lintels to be provide for both wall leaves
Existing drainage under new extension to be exposed and re routed as required

All drainage works to be carried out in accordance with BS EN 12056-2:2000, BS EN 1610:1998 and BS EN 12056-3:2001 and to the satisfaction of the Local Authority Building Control Dept.
Contractor to ensure that all connection permits From Scottish Water are in place prior to start of works.

STRUCTURAL FIRE PROTECTION

fire protection to steelwork to be Nullifire S707 basecoat with a top seal of TS816 to give 30min protection.

CDM 2015 IDENTIFIED RISKS

1. All demolition work to be carried out in accordance with BS 6187 Building Operations Regulations and Health Safety at Work Act. All slappings to be carried out as per engineers details and all proping to in place and inspected prior to demolition work starting
2. Any material suspected of containing asbestos to be removed and disposed of to comply with current asbestos regulations and codes of practice
3. Inhalation of dust from building materials vacum cleaning to be used
4. Manual handeling : foundation blockwork , timber wall panels , pre-fabricated roof trusses
5. Working at heights erecting roof trusses and loading roof tiles
6. Open excavations and manholes these are to be back filled and sealed as soon as practiable while work proceeds
7. Danger from mechanical plant during excavation of foundations and existing banking when existing property is occupied
8. Fire during construction process : fire escape plan to be drawn up and safe escape routes to be identified
9. Security during works sinage indicating dangers and temporary fencing to be provided by contractor
10. Danger of injury from existing services, contractor to identify location of all services I Electricaland gas service work to be undertaken by a SELECT and GAS SAFE registered engineer /electrician respectively

NOTE

Contractors are required to comply with current Health and Safety at Work Regulations and CDM 2015.Regulations by providing risk assessments and method statements as required.
Client and Contractor should note that no work can start until a construction phase plan is in place and risks have been identified and managed. In addition suitable wellfare facilities should be in place prior to commencing work
The client and contractor should note that an F10 notification may be required dependant on duration of the works
Scaffolding and edge protection to be provided for all works at height
All demolition to be carried out in accordance with engineere details and methode statements
The contractor will be required to liase with all public utilities as and when required.

NOTE

DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENGINEERS DRAWINGS AND SPECIFICATIONS

title	scale	date	drwg no
PROPOSED CONVERSION OF EXISTING GARAGE TO ACCESSIBLE BEDROOM FOR Mr & Mrs WRIGHT AT 2 BROOMFIELD SANQUHAR	NTS	AUG 17	JW/SPEC