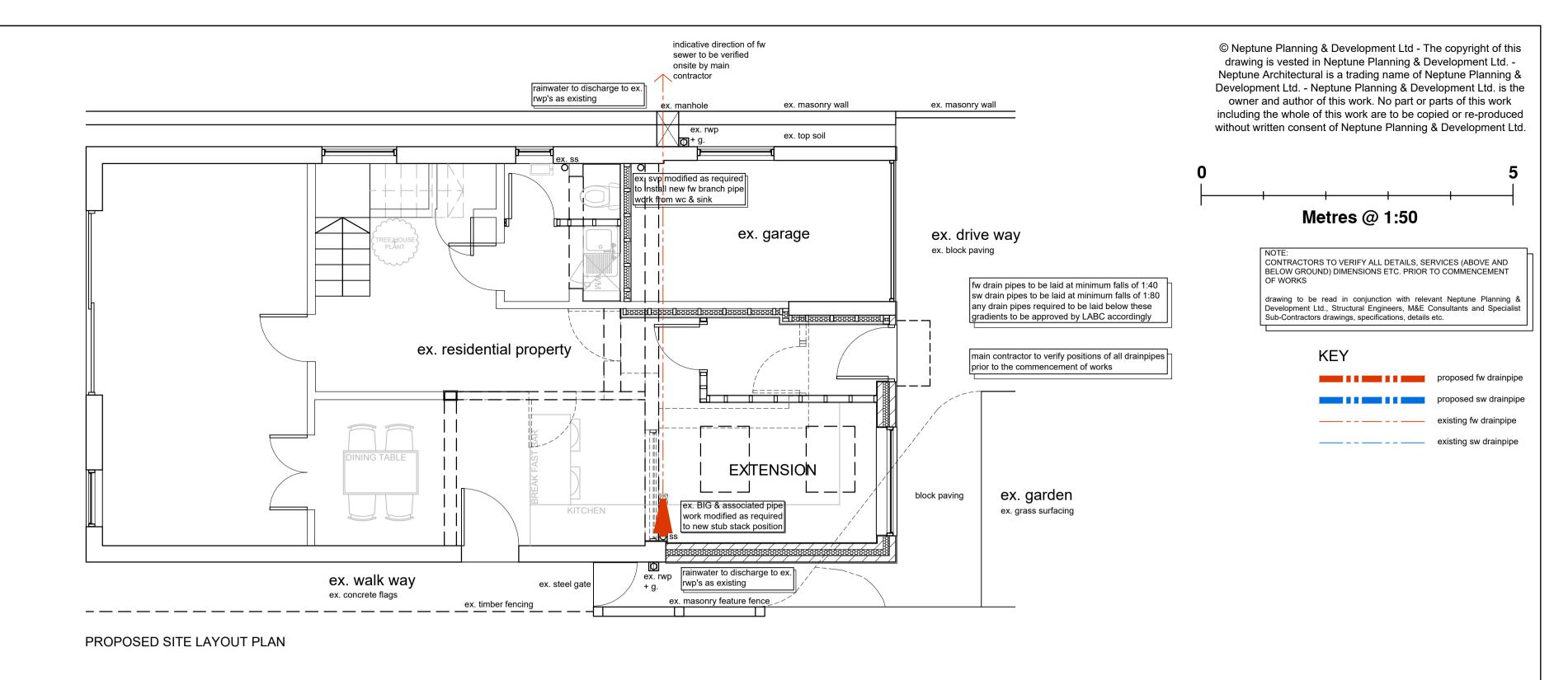
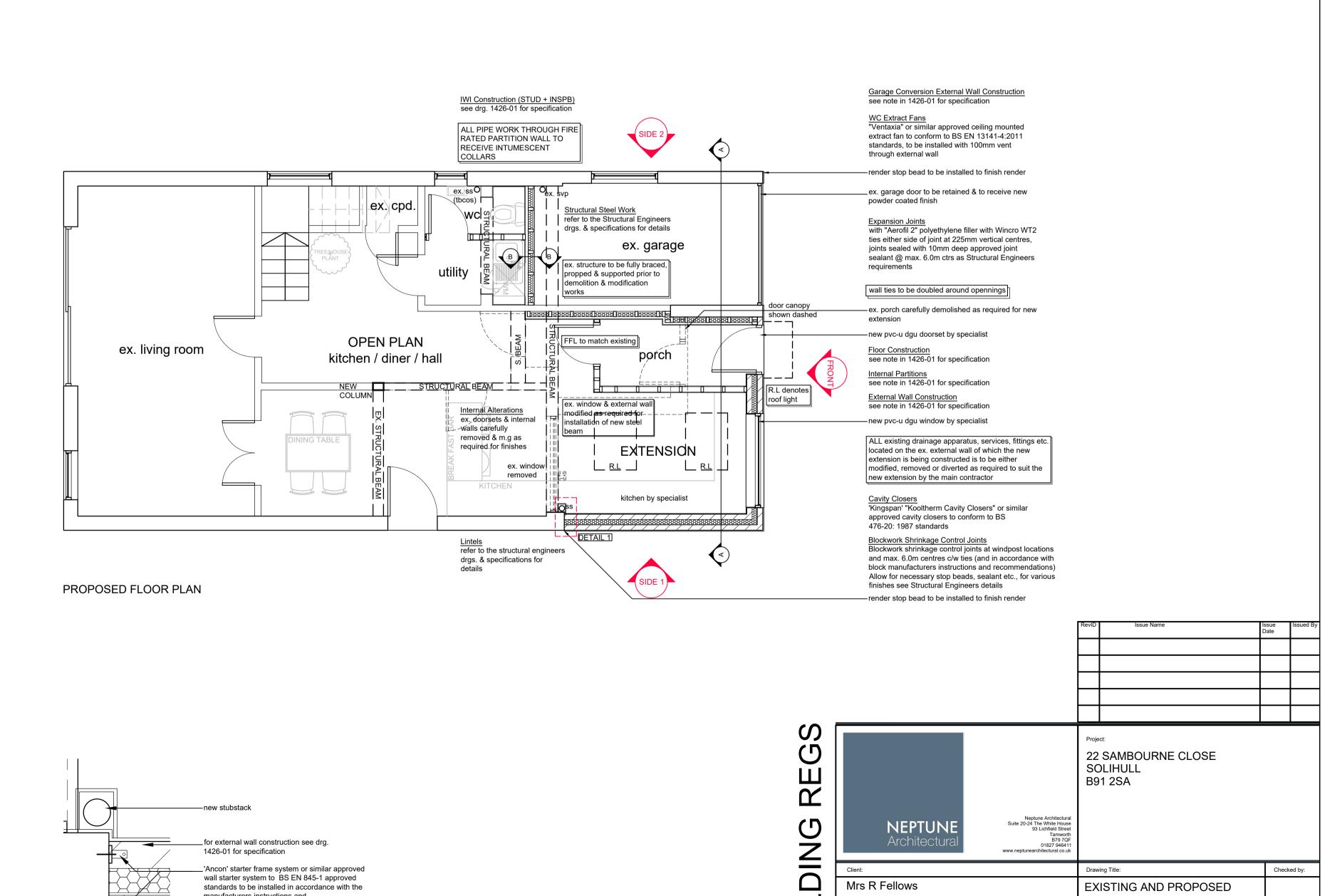




The developer is to consult the Local Sewers Undertaker when constructing, extending or underpinning over a sewer or within 3m of the centreline of sewer shown on the sewerage undertakers sewer records and when the following applies:

- The building or extension is to be constructed over a manhole or
- inspection chamber or other access fitting on a sewer. - The length of the drain or sewer under the proposed building or
- extension will exceed 6m.
- The Building or extension is to be constructed over or within 3m of any drain or sewer more than 3m deep or greater than 225m in diameter.





BUIL

1:50

10/01/22

standards to be installed in accordance with the

manufacturers instructions and

recommendations

ex. external wall

DETAIL 1 @ 1:10

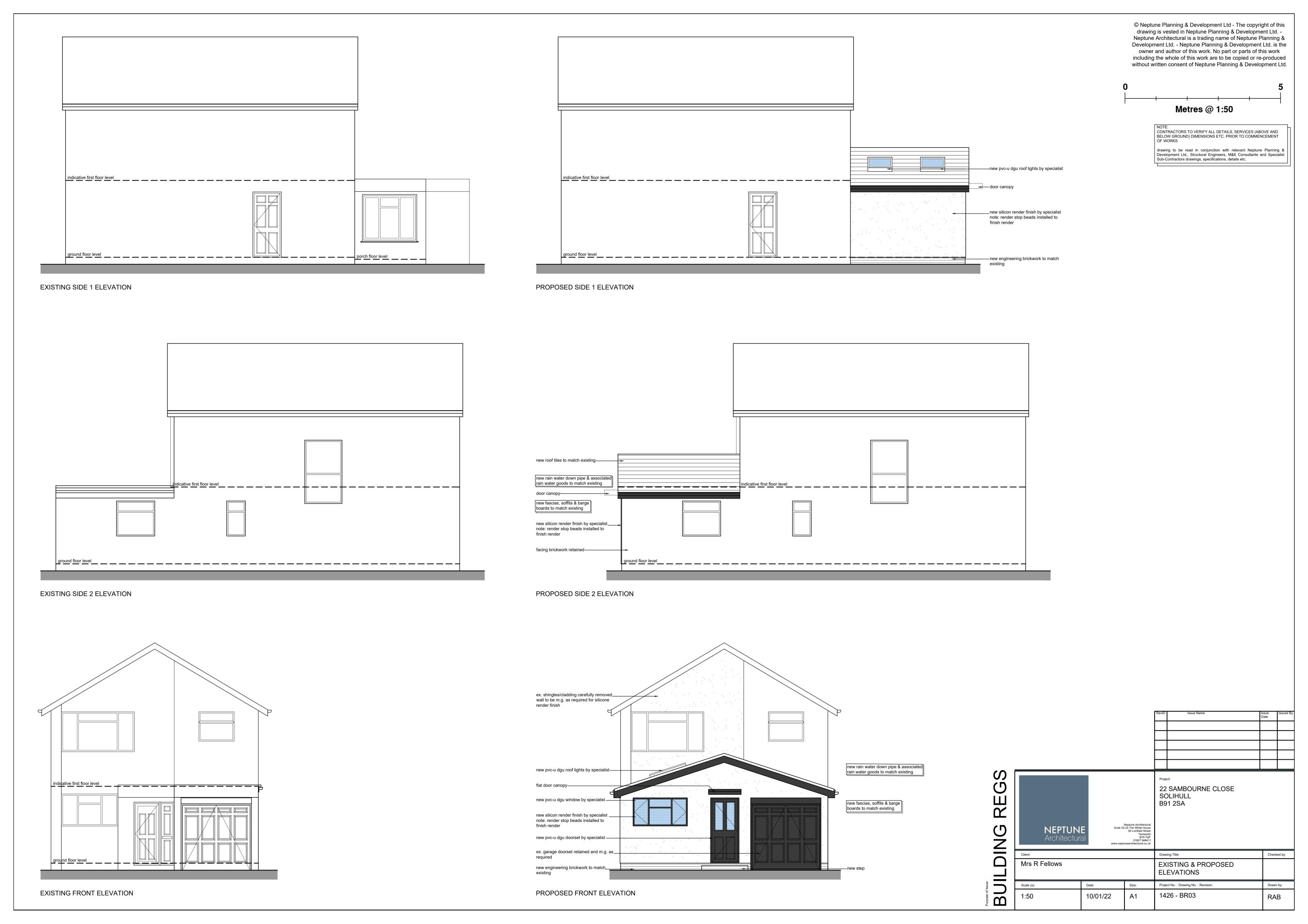
EXISTING AND PROPOSED

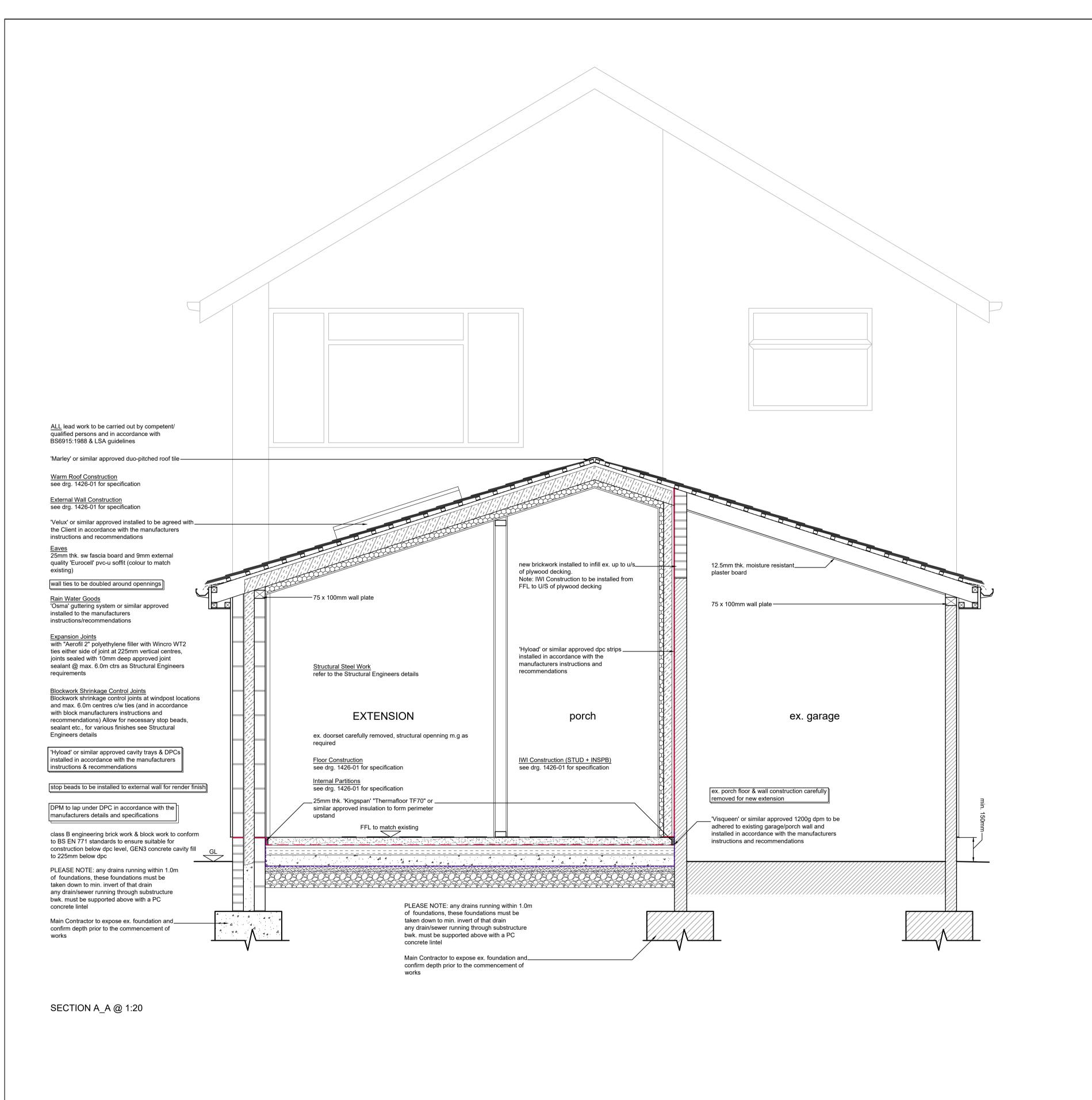
Project No.: Drawing No.: Revision:

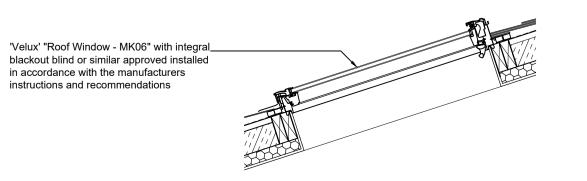
1426 - BR02

SITE LAYOUT & FLOOR PLANS

RAB







ROOFLIGHT @ 1:20

15mm thk. 'Gyproc' "FireLine Board MR" or similar approved fire rated board fixed to timber stud work for 60mins min. fire resistance FFL to match sw timber sole plategarage level to match existing engineering brick work---ex. floor slab shown indicative___

IWI CONSTRUCTION (STUD + INSPB)
15mm 'Gyproc' "Fireline MR" board or similar approved fire rated plasterboard fixed to 100x50mm timber studwork @ 400mm ctrs. with sole plate bolted to the top of the brickwork with 'Hyload' or similar approved dpc strips, 75mm thk. 'Kingspan' "Kooltherm K112 Framing Board" or similar approved system with a 25mm thk. timber stop batten fixed in between insulation and brickwork ALL to be installed in strict accordance with the manufacturers instructions & recommendation, 52.5mm thk. 'Kingspan' "Kooltherm K118 Insulated Plasterboard" fixed to studwork or similar approved system to be installed in accordance with the manufacturers instructions & recommendations, skim finish to be applied to finish the wall. (U value = 0.17W/m²K)

SECTION B_B @ 1:20

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Metres @ 1:50

CONTRACTORS TO VERIFY ALL DETAILS, SERVICES (ABOVE AND BELOW GROUND) DIMENSIONS ETC. PRIOR TO COMMENCEMENT

drawing to be read in conjunction with relevant Neptune Planning & Development Ltd., Structural Engineers, M&E Consultants and Specialist Sub-Contractors drawings, specifications, details etc.

DING REGS	Neptune Architectural Neptune Architectural Suite 20-24 The White House 93 Lichfield Street Tamworth 879 70F 01827 946411 www.neptunearchitectural.co.uk			Project: 22 SAMBOURNE CLOSE SOLIHULL B91 2SA			
	Client:		Drawing Title:	Checked by:			
	Mrs R Fellows		SECTIONS				
	Scale (s):	Date:	Size:	Project No.: Drawing No.: Revision:	Drawn by:		
	1:20	10/01/22	A1	1426 - BR04	RAB		

10/01/22

1:20

 \Box

RAB

BUILDING REGULATIONS NOTES

All notes to be read and applied as applicable

MATERIALS AND WORKMANSHIP

All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases, radon, vapours etc. on or in the ground covered, or to be covered by the

EXISTING STRUCTURE

Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.

WALLS

building.

RENDERED BLOCKWORK EXTERNAL WALL CONSTRUCTION

20mm thk, render finish to conform to BS EN 13914 on 100mm thk, dense blockwork, 90mm thk, 'Kingspan' "Kooltherm K106 Cavity Board" or similar PIR insulation boards installed in strict accordance with the manufacturers instructions & recommendations with a 10mm thk. residual cavity (100mm thk. cavity), 100mm thk. aerated blockwork (k-value = 0.15W/mK), tie leaves together with Wincro WT2 ties at 750mm horizontal ctrs. and 450mm vertical ctrs. (staggered) and 225mm ctrs. (U value = 0.17W/m²K)

IWI CONSTRUCTION (STUD + INSPB)

102mm thk. facing brickwork to match existing / retained brickwork / 15mm 'Gyproc' "Fireline MR" board or similar approved fire rated plasterboard with 100x50mm timber studwork @ 400ctrs. fixed to brick work with 'Hyload' or similar approved dpc strips, 75mm thk. 'Kingspan' "Kooltherm K112 Framing Board" or similar approved system with a 25mm thk. timber stop batten fixed in between insulation and brickwork ALL to be installed in strict accordance with the manufacturers instructions & recommendation, 52.5mm thk. 'Kingspan' "Kooltherm K118 Insulated Plasterboard" fixed to studwork or similar approved system to be installed in strict accordance with the manufacturers instructions & recommendations, skim finish to be applied to finish the wall. (U value = 0.17W/m²K)

PITCHED ROOF

ROOF (INSULATION BETWEEN & UNDER RAFTER) CONSTRUCTION

'Marley Eternit' or similar approved roof tiles to match existing on 38x25mm tanalised battens on 'Tyvek' or similar approved breather membrane to BS5250 all installed in strict accordance with the manufacturers instructions &

120mm thk. 'Kingspan' "Kooltherm K107 Pitched Roof Board" or similar approved PIR insulation to be installed between rafters, 72.5mm thk. 'Kingspan' "Kooltherm K118 Insulated Plasterboard" to be installed beneath the rafter line as shown in accordance with the manufacturers instructions and recommendations. (U value = 0.12W/m²K)

FLOOR

FLOOR CONSTRUCTION

75mm thk. screed and finish (floor finish TBC) on 'Visqueen' or similar approved 500g polythene separation layer/VCL on 90mm thk. 'Kingspan' "Kooltherm K103 Floorboard" or similar approved PIR insulation to be installed in accordance with the manufacturers instructions & recommendations on 150mm thk. concrete slab to be constructed in strict accordance with the Structural Engineers drawings / calculations, on 1200 gauge 'Visqueen' or similar approved DPM well lapped with DPC's on 50mm sand blinding on top of consolidated well rammed hardcore min. 150mm thk. (U value = 0.17W/m²K)

GARAGE CONVERSION FLOOR CONSTRUCTION

75mm thk. screed and finish (floor finish TBC) on 'Visqueen' or similar approved 500g polythene separation layer/VCL on 75mm thk. 'Kingspan' "Kooltherm K103 Floorboard" or similar approved PIR insulation to be installed in accordance with the manufacturers instructions & recommendations on 1200 gauge 'Visqueen' or similar approved DPM well lapped with DPC's (U value = 0.20W/m²K)

FOUNDATIONS

mass concrete foundations, width and depth to be confirmed onsite by LABC.

Refer to the Structural Engineers drawings and specifications for details

- For uniformly distributed loads and standard 2 storey domestic loadings only Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings.

Lintels to have a minimum bearing of 150mm on each end.

Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS EN 1992-1-1, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS5896 to support loadings assessed to BS 5977 Part 1.

For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacturer's standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

Independent lintels to have an insulated cavity closure between the inner and outer lintel. Common leaf lintels base plates should not be continuous and the lintel core to be insulated.

All wall plates to be 100 x 50mm fixed to inner skin of cavity wall using 30mm x 5mm x 1000mm galvanized metal straps or other approved to BSEN 845-1 at maximum 2m centres.

THERMAL BRIDGING

Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.

STRAPPING FOR PITCHED ROOF

Gable walls should be strapped to roofs at 2m centres. All external walls running parallel to roof rafters to be restrained at roof level using 1000mm x 30mm x 5mm galvanised mild steel horizontal straps or other approved to BSEN 845-1 built into walls at max 2000mm centres and to be taken across minimum 3 rafters and screw fixed. Provide solid noggins between rafters at strap positions.

OPENINGS AND RETURNS

An opening or recess greater than 0.1m² shall be at least 550mm from the supported wall (measured internally).

Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPC's and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

WALL TIES

All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS EN 845

CAVITIES

Provide cavity trays over openings. All cavities to be closed at eaves and around openings using Thermabate or similar non combustible insulated cavity closers. Provide vertical DPCs around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weepholes (min 2) at max 900mm centres.

Cavities in the new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abuts the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

30 minute fire resistant cavity barriers to be provided at tops of walls, gable end walls and vertically at junctions with separating walls & horizontally at separating walls with cavity tray over installed according to manufacturer's details.

MOVEMENT JOINTS

Movement joints to be provided at the following maximum spacing:

Clay brickwork - 12m. Calcium silicate brick - 7.5-9m.

Lightweight concrete block - density not exceeding 1,500kg/m3 - 6m.

Dense concrete block - density exceeding 1,500kg/m3 - 7.5-9m. Any masonry in a parapet wall (length to height ratio greater than 3:1) - half the above spacings and 1.5m from corners.

Movement joint widths for clay bricks to be not less than 1.3mm/m i.e. 12m = 16mm and for other masonry not less than 10mm. Additional movement joints may be required where the aspect ratio of the wall (length :height) is more than 3:1.

Considerations to be given to BS EN 1996-1-2:2005 Eurocode 6. Design of masonry structure.

LEAD WORK AND FLASHINGS

All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all jambs and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

INTERNAL STUD PARTITIONS

100mm x 50mm softwood treated timbers study at 400mm ctrs with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm. Provide min 10kg/m³ density acoustic soundproof guilt tightly packed (eg. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plasterboard with skim plaster finish. Taped and jointed complete with beads and stops.

All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to Building Control on completion.

INTERNAL LIGHTING

Install low energy light fittings that only take lamps having a luminous efficiency better than 80 lumens per circuit watt. All fixed to have lighting capacity (lm) 185 x total floor area, to comply with Part L of the current Building Regulations and the Domestic Building Services Compliance Guide.

Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations. The energy performance of the new components to be assessed. The results should be recorded and given to the building owner.

All accessible pipes to be insulated to the standards in Table 4.4 Approved Document L.

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Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

SMOKE DETECTION

Mains operated linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D category LD3 standard and to be mains powered with battery back up. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ storeys and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

NEW AND REPLACEMENT WINDOWS New and replacement windows to be double glazed with 16-20mm argon gap and soft coat low-E glass. Window Energy Rating to be Band B or better and to achieve U-value of 1.4 W/m²K. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension. Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals. Windows and door frames to be taped to surrounding openings using air sealing tape.

NEW AND REPLACEMENT DOORS

New and replacement doors to achieve a U-Value of 1.4W/m²K. Glazed areas to be double glazed with 16-20mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) of the current Building Regulations. Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity

closers to be used around reveals. Windows and door frames to be taped to surrounding openings using air sealing tape.

PURGE VENTILATION

Minimum total area of opening in accordance with Table 1.4 Approved Document F1.

Windows to be fitted with trickle vents to provide adequate background ventilation in accordance with Approved Document F.

Hinged pivot windows with an opening angle of 15 to 30 degrees to have an openable area in excess 1/10 of the floor area of the room. Sash windows, external doors or hinged pivot windows with an opening angle of equal to or greater than 30 degrees to have an openable area in excess of 1/20 of the floor area of the room.

Purge ventilation should be capable of extracting at least 4 air changes per hour per room directly to the outside.

Internal doors should be provided with a 10mm gap below the door to aid air circulation.

W/C to have mechanical ventilation ducted to external air with an extract rating of 15l/s operated via the light switch. Vent to have a 15min overrun if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

BACKGROUND VENTILATION

Controllable background ventilation at least 1700mm above floor level to be provided to habitable rooms and kitchens at a rate of min 10,000mm², and to wet rooms at a rate of min 5000mm², Background ventilators to be tested to BS EN 13141-1

Background ventilator equivalent area and operation to be measured and recorded.

C2. CONDENSATION

Walls, floors and roof of the building to be designed and constructed so that their structural and thermal performance will not be adversely affected by interstitial condensation, surface condensation or mould growth. Account to be taken of the building's form and orientation in relation to topography, prevailing winds, sunlight and over-shadowing, and the rate at which humidity is generated. Materials with the highest vapour resistance should be located on the warm side of a thermal element. VCLs to be provided where necessary. The junctions between elements are designed to Accredited Construction Details or

RAINWATER DRAINAGE

New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway or mains sewer, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill and with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway.

UNDERGROUND FOUL DRAINAGE Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered

with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1.

ABOVE GROUND DRAINAGE All new above ground drainage and plumbing to comply with BS EN 12056-2 for sanitary pipework.

quidance of BRE IP17/01] and BS 5250:2011+A1:2016 Code of practice for control of condensation in buildings to be followed.

All drainage to be in accordance with Part H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes to be provided at changes of direction.

Size of wastes pipes and max length of branch connections (if max length is exceeded then anti vacuum traps to be used)

Wash basin - 1.7m for 32mm pipe 3m for 40mm pipe Bath/shower - 3m for 40mm pipe 4m for 50mm pipe

W/c - 6m for 100mm pipe for single WC

All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m.

Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.

Waste pipes not to connect on to SVP within 200mm of the WC connection. Supply hot and cold water to all fittings as appropriate.

PIPEWORK THROUGH WALLS

of fill or vermin.

Where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a maximum length of Alternatively provide 75mm deep pre-cast concrete plank lintels over drain to form opening in wall to give 50mm space all round pipe: mask opening both sides with rigid sheet material and compressible sealant to prevent entry

H4 BUILDING OVER OR NEAR PUBLIC SEWERS

The developer is to consult the Local Sewers Undertaker when constructing, extending or underpinning over a sewer or within 3m of the centreline of sewer shown on the sewerage undertakers sewer records and when the

- The building or extension is to be constructed over a manhole or inspection chamber or other access fitting on a sewer.
- The length of the drain or sewer under the proposed building or extension will exceed 6m. - The Building or extension is to be constructed over or within 3m of any drain or sewer more than 3m deep or greater than 225m in diameter.

PIPES PASSING THROUGH TRENCH FOUNDATIONS

The load-bearing capability of foundations must not be affected where services pass through.

The pipe work should be sleeved and be provided with 'rocker pipes' at a distance of 150mm either side of the foundation concrete. The 'rocker pipes' should have flexible joints and be a maximum length of 600mm. Alternatively pipework should pass through a suitably strengthened opening in the foundation, i.e. foundation shuttered and provided with suitable lintel over the pipe allowing for sufficient space for movement to ensure that the drain is capable of maintaining line and gradient. Opening should be masked with granular backfill (pea shingle) around the pipe.

DPC to be provided as required by BCO.

Advice from Building Control to be sought on suitability of pipe running through foundation before construction.

PIPES PASSING THROUGH WALLS

maximum length of 600mm.

Walls above pipes passing through substructure walls to be supported on suitable lintel on semi-engineering bricks. Pipe to be provided with a 50mm clearance all round, opening to be masked with granular backfill (pea shingle) around pipe. DPC to be provided as required by BCO. Alternatively where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a

IMPORTANT NOTE

ALL PRODUCTS AND SYSTEMS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS & RECOMMENDATIONS

	NOTE: CONTRACTORS TO VERIFY ALL DETAILS, SERVICES (ABOVE AND BELOW GROUND) DIMENSIONS ETC. PRIOR TO COMMENCEMENT OF WORKS drawing to be read in conjunction with relevant Neptune Planning &			RevID	Issue Name	Issue Date	Issued By
S	Development Ltd., Structural Engineers, M&E Consultants and Specialist Sub-Contractors drawings, specifications, details etc.						
DING REGS	Neptune Architectural NEPTUNE Architectural Neptune Architectural Suite 20-24 The White House 93 Lichfield Svert Tamworth B79 70F 01827 946411 www.neptunearchitectural.co.uk			Project: 22 SAMBOURNE CLOSE SOLIHULL B91 2SA			
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