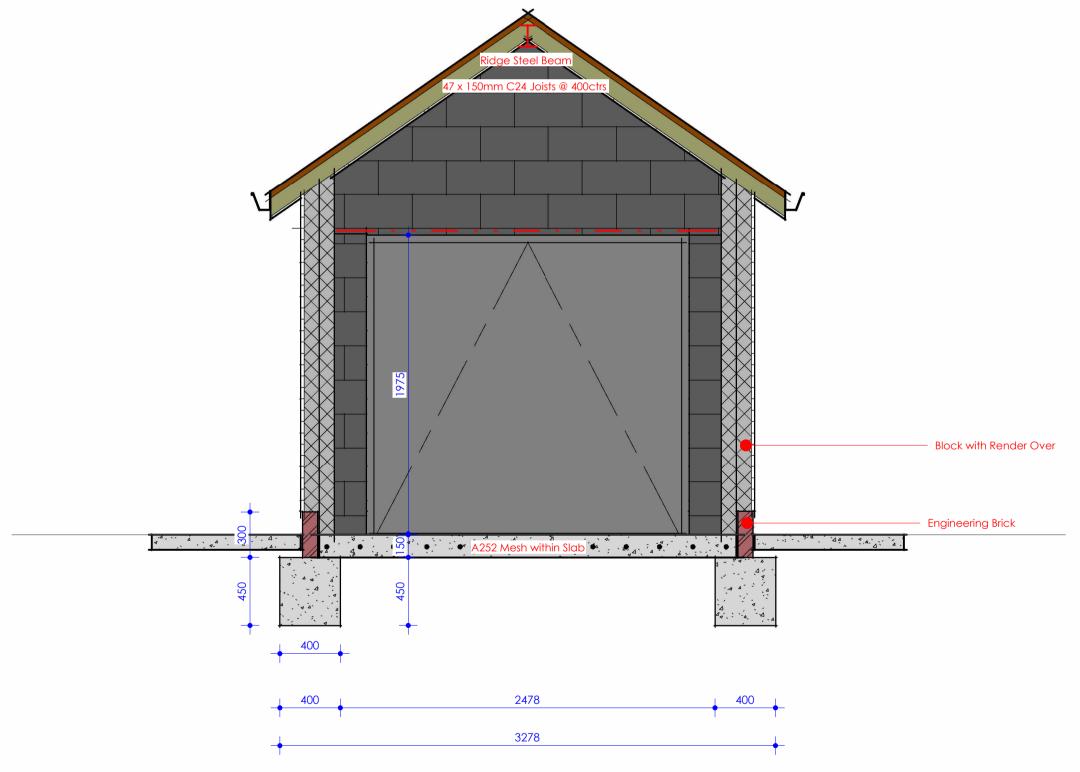
Refer to Building Regulation Drawings for Full Specifications - Please Note: We Recommend All Drainage is Surveyed Copyright 2022 A Building Regulations application is not required for garages which are: 1m 2m 3m 4m 5m Detached single storey Containing no sleeping accommodation Not exceeding floor area of 30m2 • Constructed substantially of non-combustible material i.e. masonry walls and a tiles roof. VISUAL SCALE 1:50 @ A1 • If the garage is constructed of combustible material it must be positioned at least one metre from the Planning approval may be necessary for a garage. cahic Single Leaf Wall Lintels - CCS External Solid Wall Lintels - CN81B Single leaf wall lintels Exterior solid wall lintels **Channel Sections** Standard Duty **Exterior Solid Walls** 845-1 at maximum 2m centres. 750-1800 1950-3000 3300-4800 SWL (kN) 15 20 20 Nominal height 'h' (mm) 154 229 229 www.catnic.com www.catnic.com TO THE TRADA DOCUMENT - 'SPAN TABLES FOR SOLID TIMBER MEMBERS IN FLOORS, CEILINGS AND ROOFS FOR DWELLINGS' OR ASK YOUR BUILDING CONTROL OFFICER FOR



Supply and install all structural elements such as 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

- 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. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS EN 1992-1, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 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 manufacture standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

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. 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

Pitch 22-45° (imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²) Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1. Suitable roofing tiles on 25 x 38mm tanalised sw treated battens on sarking felt supported on 47 x 150mm grade C24 rafters at max 400mm centres max span 3.47m. Rafters supported on 100 x 50mm sw wall plates. Construct ceiling using sw joists at 400mm centres, finished internally with 12.5mm plasterboard and min 3mm thistle multi-finish plaster as required. Restraint strapping - 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1000 x 30 x 5mm galvanized straps or other approved to BSEN 845-1 at 2m centres. THIS IS A GENERAL GUIDE BASED ON NORMAL LOADING CONDITIONS FOUND IN DOMESTIC CONSTRUCTION. IT IS YOUR RESPONSIBILITY TO ASSESS YOUR DESIGN TO ASCERTAIN WHETHER ENGINEER'S DETAILS/CALCULATIONS ARE REQUIRED. PLEASE REFER

DETACHED GARAGE WITH SINGLE SKIN EXTERNAL WALLS (Structural engineer's details & calculations to be provided if the floor area greater than 36m2 or the eaves level is higher than 3.0m or the ridge is higher than 3.6m.) Sand & cement render (render to BS EN 13914), on 100mm dense concrete blocks with 100 X 400mm piers at maximum 3.0m ctrs with a Mortar mix of 1:1:5-6. Design of garage to be in accordance with Approved Document A diagram Garage door opening not to exceed 5.0m in width and 2.1m in height. No other openings within 2.0m of garage door.

No more than one opening between piers Unless there is a corner pier, the distance from a window or a door to a corner

Isolated central columns between doorways (where applicable) to be 325 x

The total size of openings in a wall not containing a major opening should not

Any other openings to be calculated by a structural engineer Roof slope to be no more than 40 degrees Wall plates and gable ends to be strapped at 2m centres Garage structure and construction to comply with Approved Document A

WALLS BELOW GROUND

325mm min

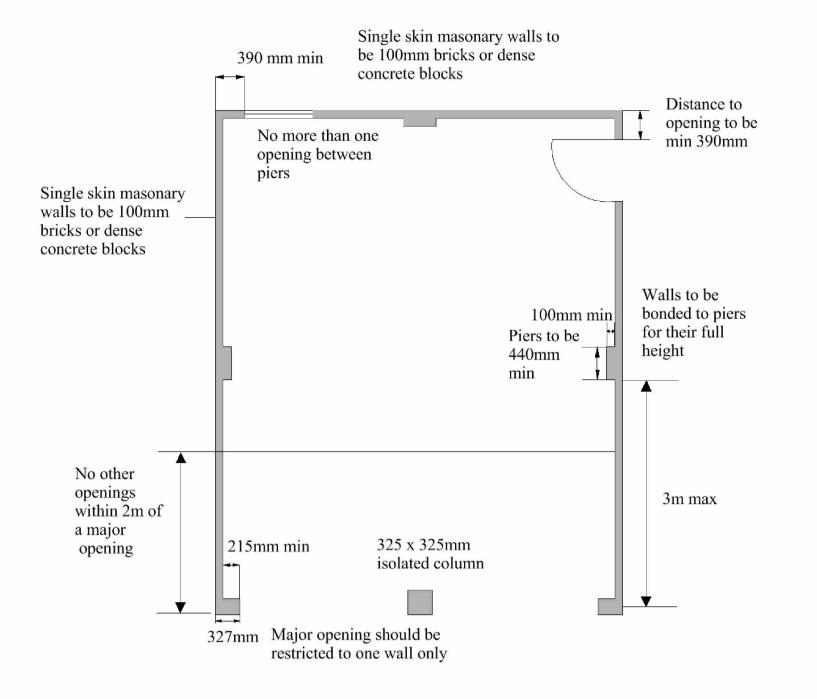
All new walls below ground to be constructed using blockwork compliant with BS EN 771 and suitable for below ground level or semi engineering brickwork. Walls to be built using 1:4 masonry mortar mix or equal approved specification to BS EN 1996-1-1. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes

SOLID GARAGE FLOOR Solid garage floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide 150mm ST2 or Gen1 ground bearing slab thickened 300mm at garage entrance, concrete mix to conform to BS EN 1992-1-1:2004 with 1 layer of 252 steel mesh positioned mid span. Slab to be laid over a 1200 gauge polythene DPM as required. DPM to be lapped in with DPC in walls. Ensure a 1:80 fall is provide to floor from back of garage to front garage door.

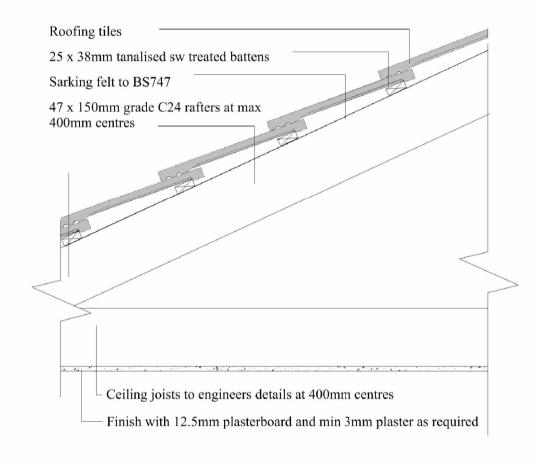
TRENCH FOUNDATION

400mm x 450mm trench fill foundations, concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should be sought.

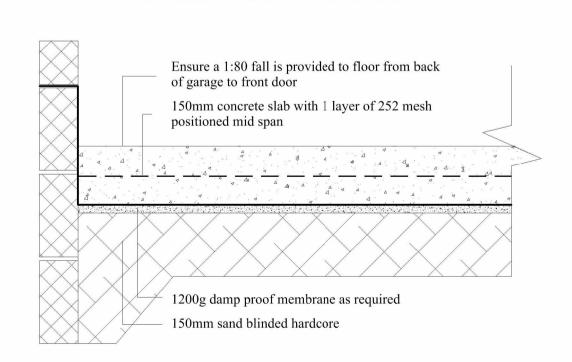
GARAGE PLAN -ref Approved Document A

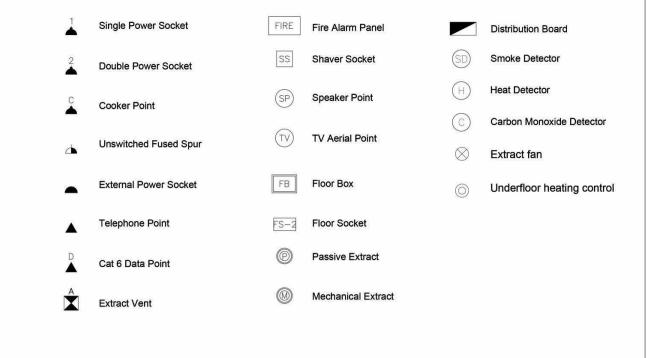


GARAGE PITCHED ROOF

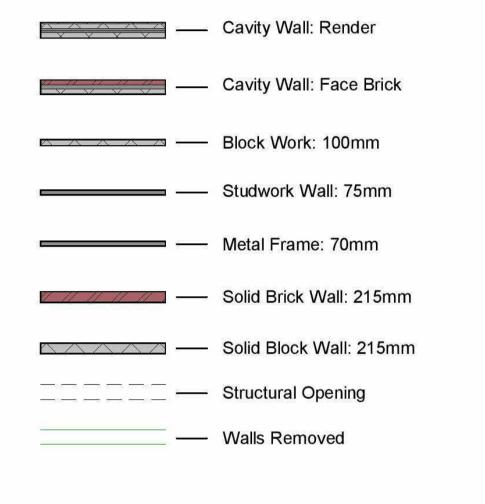


SOLID GARAGE FLOOR





Wall Structure Key:



All drawings are for the purposes of planning only unless marked for construction.

All builders to site measure to confirm measurements.

Report all discrepancies to the person named below, do not proceed without instruction.

BRO take no responsibility should any drawing/s unless specified are used for building purposes and measurements aren't checked on site.

All drawings remain the property of BRO Architecture

<u>Drainage Key</u>

S	Storm Drainage
MH	Manhole
FD	Foul Drainage
SVP	Soil Vent Pipe
GP	Gulley Pot
RWP	Rainwater Pipe
AD	ACO Drain

Ducting Colour & Use

Orange Garden Lighting non Security

DRAWING NUMBER

Sectional View



Mobile: 07508 856621 Website: www.broarchitecture.co.uk E-mail: info@broarchitecture.co.uk

CLIENT

Jake Bunce

SITE ADDRESS

1 Burley Grove Bristol **BS16 5QB**

PROJECT NAME

New Build Garage

DRAWING NAME

Proposed Sectional View

REV 5th July 22 DRAWN BY SCALE (@ A1) 1:25

CHECKED BY

PROJECT NUMBER SH/BRO/050722-JB