

BLOCK PLAN

LOCATION PLAN 1/2500 Scale

SCALE BAR 1/200 ORIGINAL DRAWING SIZE A3	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0 metres		80.0 metres	70.0	60.0	50.0	40.0	30.0	20.0	10.0	0.0	SCALE BAR 1/500
SCALE BAR 1/100	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0 metres		400.0 metres	350.0	300.0	250.0	200.0	150.0	100.0	50.0	0.0	SCALE BAR 1/2500
SCALE BAR 1/50	0.0		1.0		2.0		3.0		4.0		5.0 metres											
106 TARNSIDE BRAYSTONES CUMBRIA CA21 2YW FOR MRS MIRIAM BENZIE	SURVEY										EXISTING BLOCK PLAN & LOCATION PLAN			Scale: Date: DWG No.	1/100 @ A3 DEC 2021 21/0323/01	REV Date	Geoffrey Wallace Limited FCSD MCIAT Architectural Design and Technology Mobile 07816046756 geoffreywallaceltd@gmail.com					

Landscaping.
Existing access

Landscaping.
Replace existing rear wall and fence with new retaining wall and fence over

New upvc glazed doors with toughened glass and side window. Fix Catnic cranked lintel over Catnic corner post support.

Building Regulations Part J Heating
The existing residential building is heated by coal fired central heating and a hot water cylinder and emersion heater.
New Building. The new workshops extension will not be fitted with a permanent heating source as it will not be in permanent occupation.
Part G Water
New shower room
Wholesome water will be provided from the mains supplier in the main road, metered by the service provider United Utilities Limited.
All sanitary ware is to be from a range designed to reach sustainable Code 3 for water efficiency to achieve standard water usage of not more than 125 litres per person per day fitted with a flow restrictor to achieve the same rate.
Within 5 days of practical completion the applicant should have provided the water efficiency calculations proving the water usage of the dwelling complies with the regulations.

GROUND FLOOR PLAN

PROPOSAL FOR OUT
BUILDING

GROUND FLOOR PLAN

Scale:
Date:
DWG No.

1/50 @ A3
DEC 2021
21/0323/02

REV
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FOUNDATIONS
Foundations
Excavations for foundations
FOUNDATIONS MAY BE RECONSIDERED WITH BUILDING CONTROL DEPENDANT ON SITE SPECIFIC GROUND CONDITIONS.
Foundation trenches to be excavated to suit dimensions indicated and taken down to virgin ground for inspection by Local Authority Building Control officer.
Depth may vary according to site conditions and site contours but top of concrete must be min. 450 mm. below the finished ground level. Strip foundations to be generally 600 mm. wide x 225 mm. min. deep to external cavity walls and 450 mm. x 225 mm. min. for 100 mm. load bearing internal walls or with min. 150 mm. toe where wall thickness may vary.
Form all steps in level of foundations in vertical increments of 225 mm. to suit block coursing, and with min 300 mm horizontal overlaps.
Concrete
Concrete to be premixed C25 as described in tables 1 and 2 of B.S. 5328 maximum size aggregate to be 20 mm. All concrete shall be distributed and placed in position as quickly as practicable by a method which precludes contamination, segregation or loss of materials, compaction shall be complete before the initial set commences. Partial set concrete shall not be reworked or used. All concreting shall be continuous to completion or to an approved construction joint.
During the first seven days the concrete shall be protected by whatever means to prevent over rapid drying.
Steps in the foundations are to overlap by twice the height of the step or by 300 mm. whichever is the greater and should not be of greater height than the thickness of the foundation. In general steps should be in increments of 225 mm. to suit block covering.
Tie new foundation horizontally to existing foundations, by inserting 3 no. 9 mm. twisted mild steel bars in a dovetail pattern into the face of the existing strip foundations and install new concrete foundations to fully surround steel connections, to form a horizontal tie between the two foundations, to prevent uneven settlement.

Cavity walls below ground.
300 mm. thick cavity walls consisting 100 mm. thick solid concrete block with 100 mm wide cavity back filled with concrete to ground level max 225 mm below damp proof course and 100 mm. solid concrete block inner leaf. Cavity wall ties to be Furfix stainless steel or similar specifically designed for 100 mm. cavities at 750 mm. horizontal centres and 450m vertical centres, offset 375 mm. horizontally to form a diamond pattern. Fix additional wall ties every course at all corners and jambs. Between ground level and floor level, fix bituthene Hyload DPCs continuous across the cavity to both inner and outer leaves of walls and integrated with the Gas and Damp proof floor membrane at min of 150 mm. above ground level. Fit cavity trays over continuous gas protection in cavities. Lay facing bricks from one course below finished ground level dpc level in outer leaf to form plinth.

Drainage.
Connections and Discharges.
There are existing drainage connections for foul and surface water. These are to be surveyed recorded and investigated for suitable reuse with the approval of Building Control.
General Drainage Specification:
All new drains will be designed to comply with BS EN 752 . New soil and surface water drainage: Hepworth Supersleeve or similar spun clay 100/150/225 mm. diameter pipes with u.p.v.c. flexible sealed collars laid in clean square cut trenches at a gradient of not less than 1: 60 fall. Carefully back fill trenches with layered back fill strictly in accordance with the manufacturer's instructions. All fittings including manholes, inspection chambers, and back inlet gullies etc. to be from the same range and supplier. Set all pre formed gullies and chambers on 150 mm. concrete bases and surround with 150 mm. sleeves. Fit gullies with plastic or galvanized grills. Fit manholes and inspection chambers with steel rims and covers, as supplied by the manufacturer set in mortar surrounds. Set manhole covers onto pre formed r.c. covers where manholes internal size is greater than 450 mm. x 600 mm. which is the minimum acceptable internal dimension for a 900 mm. deep manhole. Where drains are less than 1500 mm deep in traffic areas surround pipes in 150 mm concrete sleeve with Flexcell joints at each pipe joint or as otherwise recommended by the pipe manufacturers. New drains under concrete floor are to be surrounded in concrete sleeve with expansion joints as described above.
All drain lines are diagrammatic and the final layout should be agreed on site with the Building Control Department.

New Ground Floor Construction. U Value 0.16 W/M²K
Allow for flooring finish thickness on 100 mm concrete floor slab on 500 gauge Visqueen vapour barrier on 150 mm Celotex GA4000 floor insulation slabs on 1200 gauge damp proof membrane. All on 50 mm sharp sand blinding on minimum 150 mm thick sand blinded hard-core sub-base laid and consolidated in 150 mm layers no thicker than 600 mm. deep.
Visqueen Damp Proof Membrane is to overlap D.P.C. in inner leaf of external walls to form a permanent damp proof barrier. All damp proof courses, and vapour barriers are to be overlapped and taped as recommended in the manufacture's specification for the location and purpose.
New ground floor to be level with existing ground floor.

Non-Structural stud partitions:
In the bathroom, fix new stud partitions to layout shown. Partitions to be 100 mm x 47 mm. timber studs at 400 mm. centres built of 100 mm x 75 mm. sole plates with solid bracing at maximum 900 mm. vertical centres. Fix 10kg/m² 15 mm thick plasterboard and skim both sides. Fully insulate between studs with Rockwool insulation to reduce the passage of airborne sound. Bolt vertical studs to adjacent walls to provide lateral restraint to walls and studs to form rigid grid.
Fix double joists under partitions parallel to joists and solid noggins under partitions perpendicular to joists.

Fix joist securely to wall plate.

PROPOSED ROOF LAYOUT PLANS

225 mm x 25 mm External quality plywood valley boards with lead valley linings

197 mm x 75 mm valley tree.

BAT MS305 galvanised mild steel
straps at maximum 2000 mm centres

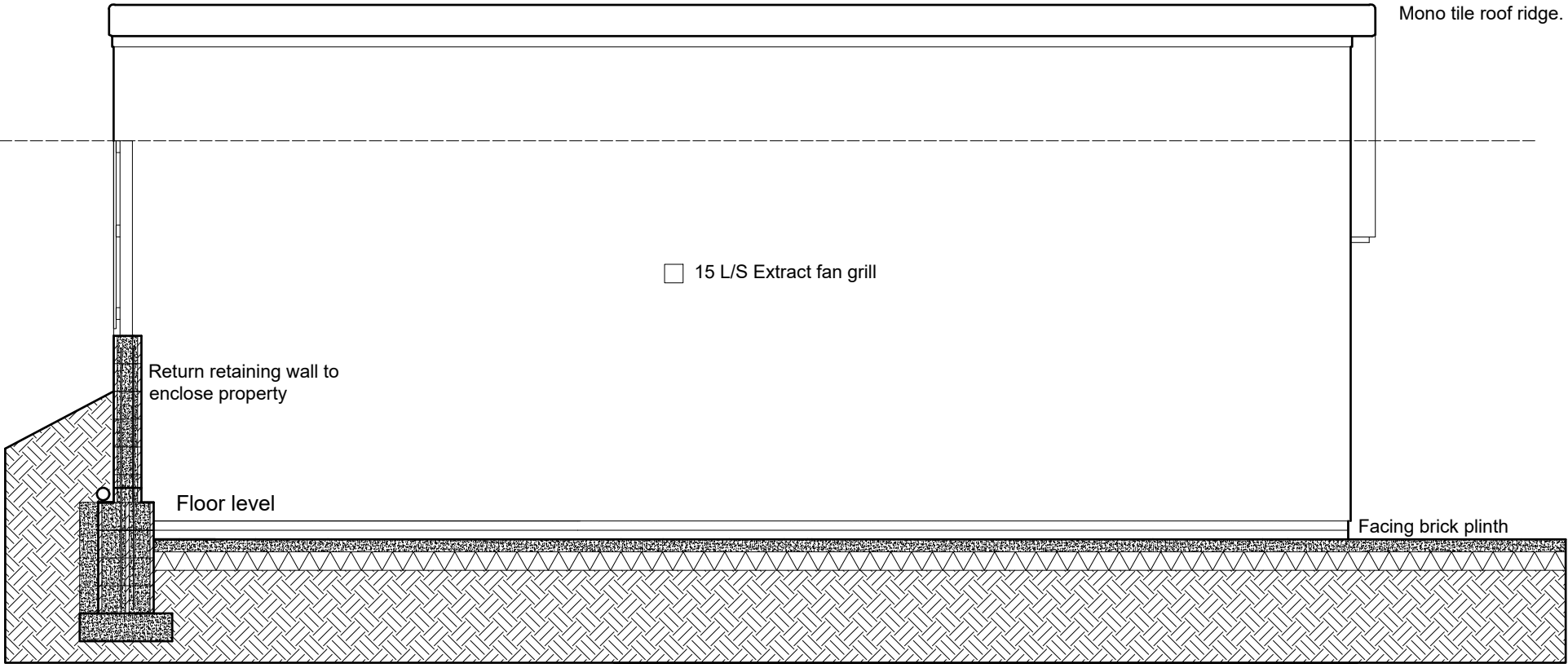
Gable ladder

SCALE BAR 1/200 ORIGINAL DRAWING SIZE A3	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0 metres		80.0 metres	70.0	60.0	50.0	40.0	30.0	20.0	10.0	0.0	SCALE BAR 1/500	
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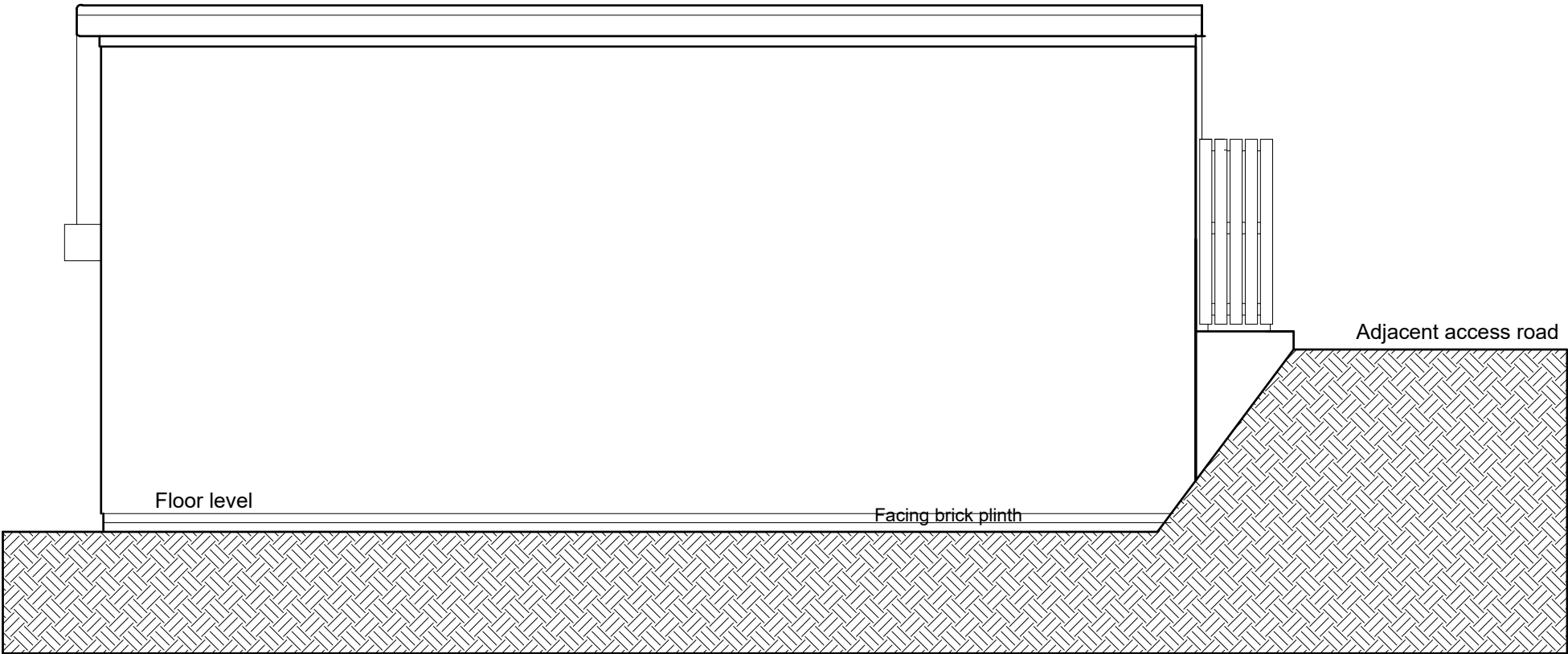
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PROPOSED SIDE ELEVATION



PROPOSED SIDE ELEVATION

External doors and windows to be from the same manufacturer. All new doors are to be upvc insulated to have a minimum U value of 14 Wm²K. Entrance doors are to be minimum 838 mm. wide and fitted with low profile cills and thresholds to comply with Part M of the Building Regulations. Any access ramps required shall have a maximum gradient of 1:12. All external doors and frames are to be fitted with draught proof seals and thresholds and the frames are to be fully sealed to the structure with mastic to prevent heat loss directly to the external air. Casement doors to be fitted with with trickle ventilation at a ratio of 500 Sq. mm per 1 sq. metre of floor space throughout habitable rooms.

Fit all new windows with draught proof seals to all opening casements and seal around heads jambs and sills with air tight mastic sealant. All casements are to be draught sealed and all frames fully sealed to structure with mastic joints to prevent heat loss directly to the external air.

Mechanical Ventilation.
Supply and fix electric light switch operated extract fan to outside air with 20 minute overrun to the following including all ducting, damping, and external grills.
En-suite sh'rooms.....100 mm. dia. 15 l/s min. extract rate.

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106 TARNSIDE BRAYSTONES CUMBRIA CA21 2YW FOR MRS MIRIAM BENZIE					PROPOSAL FOR OUT BUILDING					PROPOSED ELEVATIONS					Scale: Date: DWG No.	1/50 @ A3 DEC 2021 21/0323/05	REV DATE	Geoffrey Wallace Limited FCSD MCIAT Architectural Design and Technology Mobile 07816046756 geoffreywallaceltd@gmail.com				

New Retaining wall (based on ground level difference of 1500mm)
Foundations

Concrete strip foundations as describe elsewhere with cranked steel starter bars to suit hollow block centres.

Excavation Work for Concrete Block Retaining walls

Proper machines or tools should be selected and used for this purpose and undisturbed and satisfactory strong soil can be reached after the removal of the soil. The work should be carried out based on the lines and grades provided by the retaining wall design drawings. Considerable care should be practiced to prevent excessive excavation. It should be remembered that the position of structures and utilities at the vicinity of the project site should be specified and necessary measures should be taken to prevent damages because of excavation work.

Foundation Soil Preparation for Concrete Block Retaining walls

Foundation soil under the basement should be excavated in accordance with drawings of the concrete block retaining wall design. It should be compacted to at least 95% standard proctor compaction test. Site engineer should explore and examine foundation soil to ensure that it meets the requirements of the design. If the soil foundation does not meet the design requirements, it should be replaced with acceptable material.

Construction of Concrete Block Retaining Wall Base

Similar to other part of the retaining wall, the placement of base material should be carried out as per drawings provided. It is recommended to consider low permeable granular material as a base material and this soil layer is placed on foundation soil. When base materials are placed, adequate depth should be lifted according to recommendations of applicable codes or design documents to install and bury the bottom of the wall. The base material need to be compacted at 95% standard proctor and the top surface is advised to be levelled using 13mm thickness of well graded sand.

The thickness of the base material is based on the height of retaining wall. For example, 100mm can be adopted for heights less than 1.2m and 150mm for heights greater than 1.2m.

Concrete Block Unit Placement in Retaining Wall

Concrete block units should be installed properly in accordance with design documents and need to be plumbed. They should be placed cells vertical, and mortar need to be applied for all sides of the block both in horizontal and vertical directions. It should be guaranteed that first course of the wall should adequately be in contact with base material.

The horizontal and vertical mortar joint thickness should not be smaller than 10mm. If joints are visible, then concave joint section should be created otherwise the finishing work will be struck with trowel. It is recommended to use a mortar of 1 cement or 1 lime: 6 sand or 1 cement: 5 sand plus water thickener. If the retaining wall is reinforced with steel bars, then cell should be cleaned from the first course using proper means and techniques. The cleaning is considerably advantageous since the position of the steel bars would be influenced by debris in the spaces. Additionally, mortars that stick into the spaces should be removed either along construction progression or after completion of block placement. Weep holes are required to be placed at a recommended spacing of 1200mm. The reinforcement bars are embedded into the space of the wall and fastened sufficiently to prevent their disposition.

Reinforcement Placement in Concrete Block Retaining Wall
Grouting of Concrete Block Retaining Wall

Grouting process carried out as follow:

Seal/clean out holes.

Pour the grout and ensure that all spaces are filled adequately with grout to produce the best possible bond in the wall.

Voids in the grout should be eliminated by applying compaction.

Building code requirement for masonry structures and commentary provides minimum space requirements for grouting which can be seen in Table 1.

Construction Inspection of Concrete Block Retaining Wall

It is necessary to conduct inspection at various construction phases which are explained below:

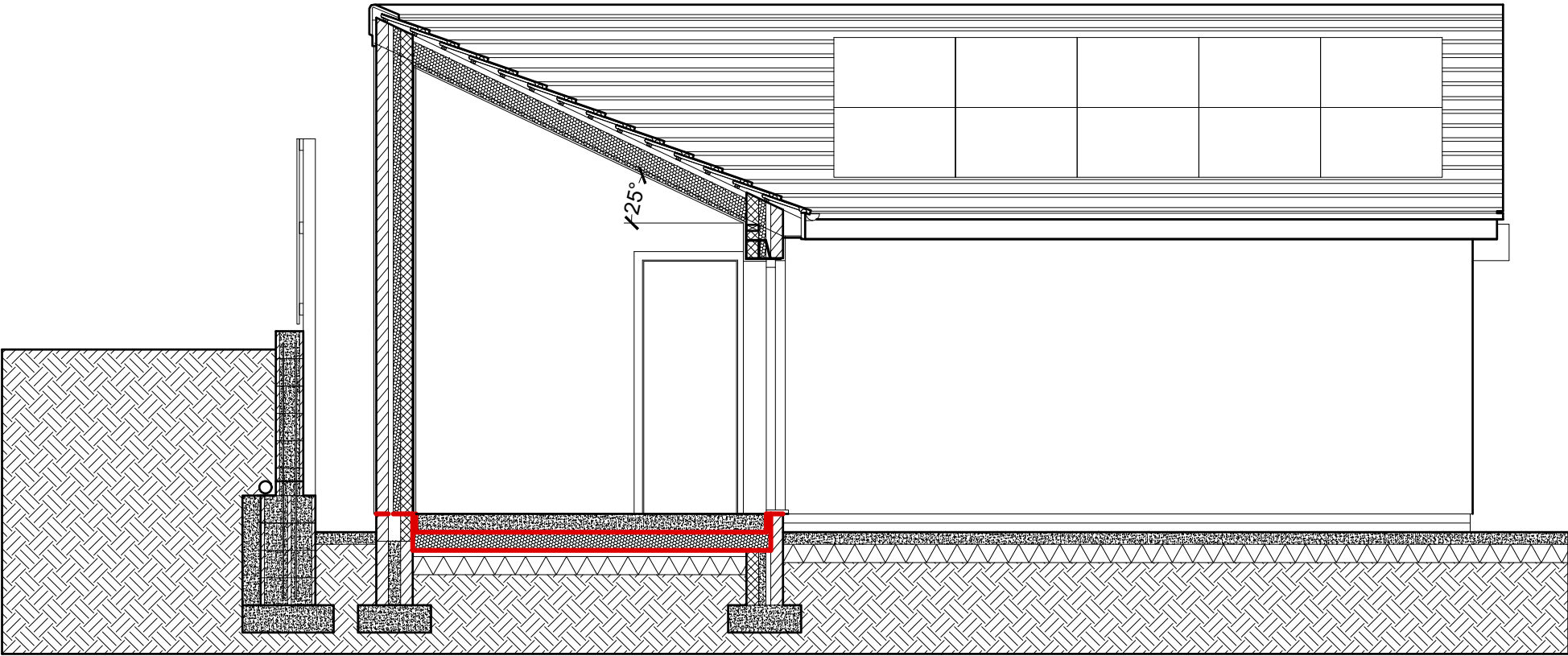
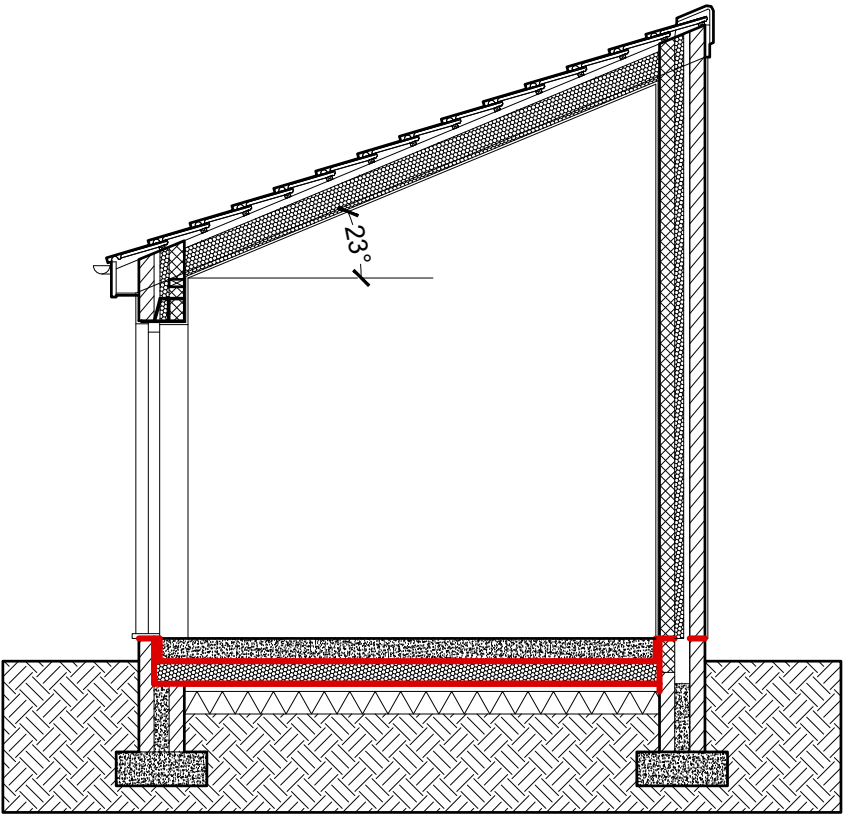
Inspection would be necessary after the completion of foundation excavation work and reinforcement placement, and it should be conducted prior to concrete pouring. Before the placement of grouts, after concrete blocks are placed and steel bars are inserted.

Prior to the placement of backfill material.

Finally, after the entire construction work is ended.

Table-1: Grout Space Requirements (MSJC, 2011)

Grout type	Maximum grout height, m	Minimum width of space, mm	Minimum clear grout dimensions for hollow units, mm x mm
Fine	0.3	19.1	38.1 x 50.8
Fine	1.63	50.8	50.8 x 76.2
Fine	3.86	63.5	63.5 x 76.2
Fine	7.32	76.2	76.2 x 76.2)
Coarse	0.30	38.1	38.1 x 76.2
Coarse	1.63	50.8	63.5 x 76.2
Coarse	3.86	63.5	76.2 x 76.2
Coarse	7.32	76.2	76.2 x 102



SECTIONAL ELEVATIONS

SCALE BAR 1/200 ORIGINAL DRAWING SIZE A3	0.0	0.2	.04	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0 metres		80.0 metres	70.0	60.0	50.0	40.0	30.0	20.0	10.0	0.0	SCALE BAR 1/500
SCALE BAR 1/100	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0 metres		400.0 metres	350.0	300.0	250.0	200.0	150.0	100.0	50.0	0.0	SCALE BAR 1/2500
SCALE BAR 1/50	0.0		1.0		2.0		3.0		4.0		5.0 metres											

106 TARNSIDE BRAYSTONES CUMBRIA
CA21 2YW FOR MRS MIRIAM BENZIE

PROPOSAL FOR OUT
BUILDING

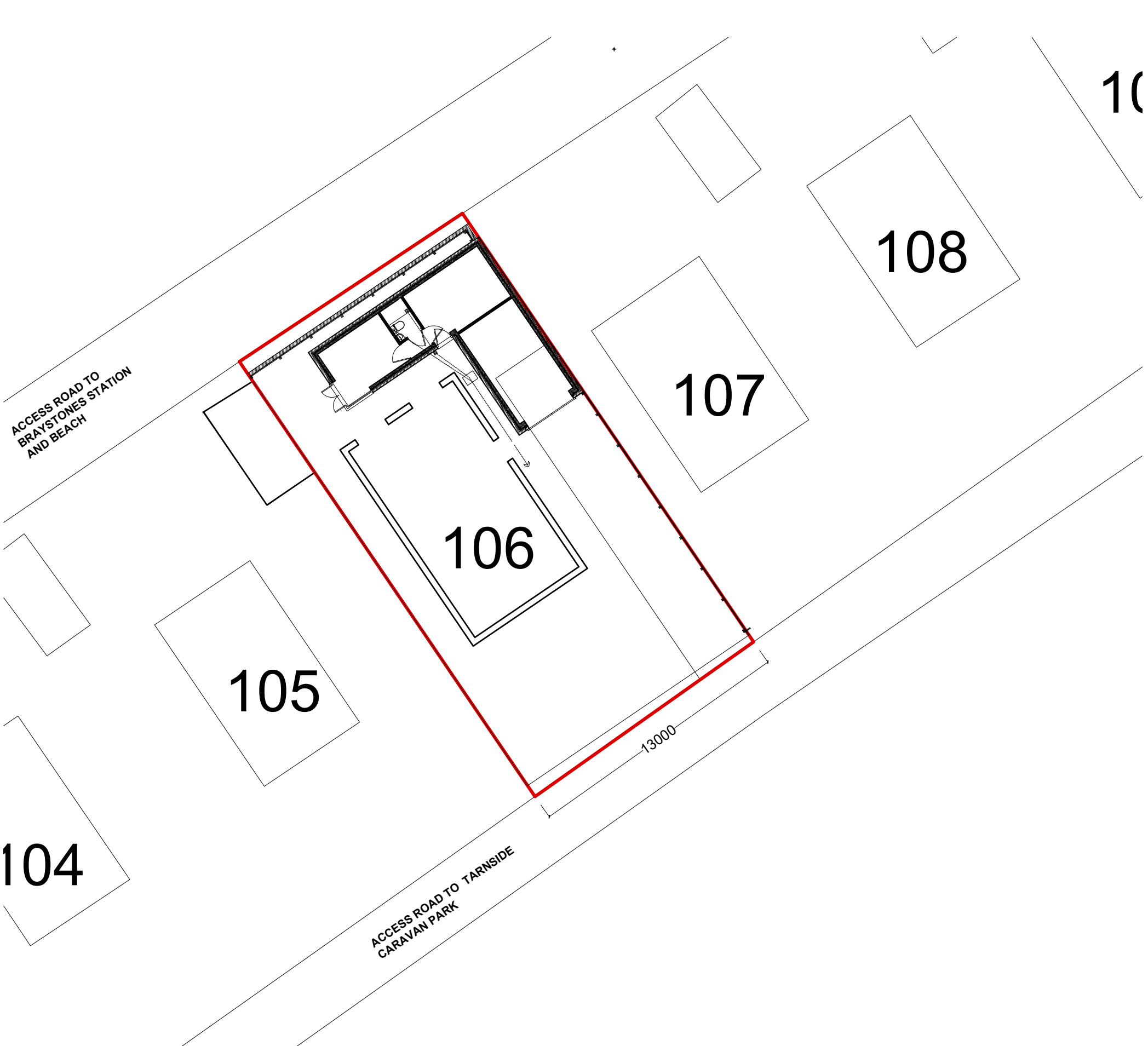
PROPOSED SECTION

Scale:
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21/0323/06

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Planning Details.
Finishes:
Roof: Slates to match existing.
Doors & windows. Brown upvc to match existing.
Boundaries: All existing boundaries retained.
Gutters fascias soffits and roof trims. Brown upvc to match existing.
Frontage: 13.0000 Metres approximately (measure at road kerb.
Site Area: 312.00 SQ Metres
House Height existing. ground to ridge 4.880 Metres
Proposed outbuilding ridge..... 4.330 Metres
Proposed outbuilding area.....43.00 sq Metres

BLOCK PLAN

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SCALE BAR 1/100	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0 metres		800.0 metres	700.0	600.0	500.0	400.0	300.0	200.0	100.0	0.0	SCALE BAR 1/1250
SCALE BAR 1/50	0.0		1.0		2.0		3.0		4.0		5.0 metres											

106 TARNSIDE BRAYSTONES CUMBRIA CA21 2YW FOR MRS MIRIAM BENZIE	PROPOSAL FOR OUT BUILDING	PROPOSED BLOCK PLAN PLAN	Scale: Date: DWG No.	1/200 @ A3 DEC 2021 21/0323/07	REV Date	Geoffrey Wallace Limited FCSD MCIAT Architectural Design and Technology Mobile 07816046756 geoffreywallaceltd@gmail.com
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