ROOF (construction)

Bespoke orangery roof and glass atrium.

Roof to be traditional aluminium. Glass atrium to be a Stratus thermally broken lantern structure with thin spines.

Construction of the Warm Roof

- Glass atrium – Stratus roof with Celsius Elite roof glass, toughened, anti-sun, blue tint, easy cleaning, with argon gas filled units to lowest U-Value.
- 8" x 2" (220mm x 50mm) at 450mm centres, ladder framework built on existing support pillars and steel frame.
- 2" (50mm) to nothing tilt fillets nailed on to joists to create fall
- 18mm OSB3 decking ribbed nailed on to joists
- 8" x 2" (220mm x 50mm) timber joists screwed down on decking around opening for glazing framework
- 6" x 2" (150mm x 50mm) timber joists around perimeter screwed on top of decking
- Vapour control layer laid on to decking
- 150mm Celotex insulation screwed down on to decking with thermal closing tubes
- Slate grey Armourplan PVC membrane adhered directly on to insulation and upstand
- Detailing membrane around corners and seams welded at 475 degrees
- 75 x 25mm Armourplan PVC clad metal trim nailed down around perimeter and heat welded to membrane
- Drainage channel made using Amourplan PVC cladded metal sheeting, running into a hopper and welded membrane
- Up stand created for glass atrium to be installed.

Atrium to centre is an aluminium reinforced structure with maintenance free internal covers. Glass for atrium to be Celsius Elite, toughened, anti-sun, blue tint, easy cleaning, with argon gas filled unit to lowest U-Value. A choice of cresting is available.

See more about the roof glass to be used at:
http://www.celsius glass.co.uk/the-celsius-range/celsius-elite

GROUND FLOOR AND FOUNDATIONS

Foundation detailed on the proposed sections. Strip or trench-fill foundations to be generally 600 mm wide, Trench fill foundations to be normally 1000 mm minimum depth and constructed off a suitable load bearing strata. The foundation must be inspected and approved by the Local Authority Building Inspector. Blue engineering bricks with any cavity filled with lean mix concrete

- 25mm insulated up stand to the perimeter of the concrete floor slab.
- Standard concrete floors to be 110mm thickness incorporating a single layer of A142 reinforcing fabric minimum 50mm cover.
- 150mm Celotex insulation
- 2000 gauge Visqueen damp proof membrane lapped into the damp proof course.
- 50 mm sand blinding.
- 200 mm sand blinded well-compacted hard-core.
- Concrete screed floor finish.

Where drainage pipes pass through foundation walls the pipes need to be spanned by 65 x 100 mm reinforced concrete Span light lintels minimum 100 mm bearings, the pipe to have a minimum 50 mm flexible surround.

EXTERNAL WALLS

302mm external walls to be constructed from the following:

- 102mm blockwork (brick finish to match existing house as close as possible).
- 100 mm cavity closed at eaves and all openings using insulated vinyl damp proof course and reveal blocks. Approved stainless steel wall ties at 450 mm vertical centres, 600 mm horizontal centres.
- 75 mm Celotex cavity insulation with 25mm air gap
- 100 mm thickness Themalite block work, dry lined with 12.5 mm Gyproc Wallboard with 3 mm Thistle plaster skim finish.

Approved vinyl damp proof course incorporated to all new external walls and situated a minimum 150 mm above ground level. New walls to be tied to existing by toothing every other course into existing or by using stainless steel wall ties raw bolted into existing walls. All new external walls to achieve no worse than 0.30W/m²K.

OPENINGS

External window and door openings to be spanned by proprietary galvanised mild steel insulated lintels minimum 150 mm end bearings, Catnic lintels are specified on the proposed drawing
Internal door openings in masonry walls less than 1200 mm to be spanned by 100 x 65 mm Span lite lintels minimum 100 mm end bearings, openings in the same type of walls between the spans of 1200 mm and 2000 mm to be spanned by 110 x 100 mm Stress line reinforced concrete lintels minimum 100 mm end bearings.
Structural steel openings to be spanned by universal beams as specified on the floor plans.
Steel beams to be encased in two layers of 12.5 mm Gyproc Plasterboard with 3 mm thistle skim to achieve 30 minutes fire protection.

GLAZING AND INTERNAL DOORS

All new glazed units to be Pilkington K glass to achieve a U value of 1.2 Wm^2K. Glazing pane to have a 24 mm air gap and a soft low E glazing. All door sizes to be read in conjunction with drawing.
Glazing in doors and adjacent to doors should be safety glazing to BS6206 below 1500mm

DRAINAGE

Roof water to drain to 100 mm square guttering fixed to falls to 75 mm diameter black rain-water pipes. Rain-water pipes to discharge to 100 mm outlet trapped gullies. Drain runs to be agreed on site.

ELECTRICAL

Reasonable provision shall be made in the design, installation, inspection and testing of electrical installations in order to protect persons from fire or injury. Sufficient information shall be provided so that persons wishing to operate, maintain or alter an electrical installation can do so with reasonable safety. Installation Certification as or similar to the model in BS 7671 and IEE forms to be made out and signed by the competent person who carried out the design, construction, inspection and testing of the electrical work.

HOUSE WORK

- Remove window to house and widen opening by 500mm to include steel and insulation. Make good and plaster.and leave open plan.
- Relocate chamber outside of build area.
- Electrics – 3 double sockets, 10 internal LED and 6 external LED downlights to orangery roof soffit included in Basford price. Customer to have input as to location of power sockets. Any additional electrics e.g Sky, extra lighting to be paid direct to electrician

HEATING

- Heating and lighting to comply with Part L

ELECTRICAL CERTIFICATE

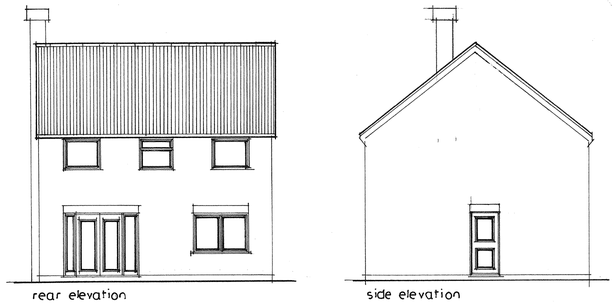
A copy of BS 7671 electrical installation certificate should be made available for plot prior to completion.

GENERAL

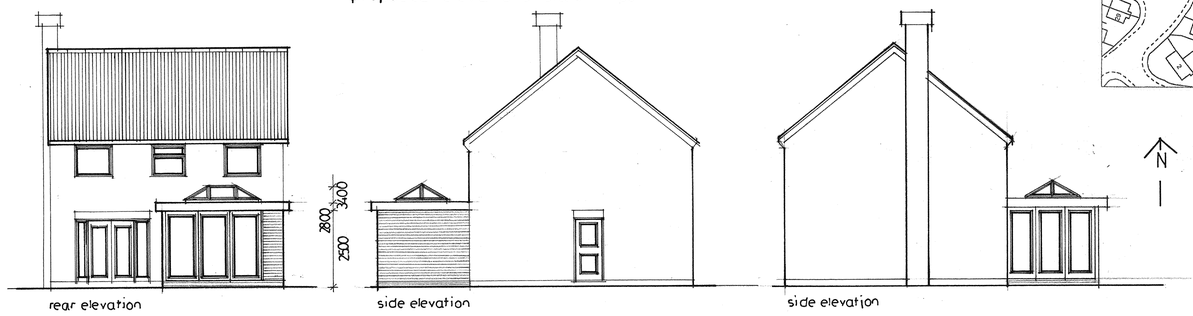
- All measurements to be checked on site.
- Do not scale off this drawing without consulting the designer.
- All electrical installations to be undertaken by N.I.C I.E.E qualified electrician.
- Insulation quilting to be fitted between stud walls
- Build over/close agreement may be required

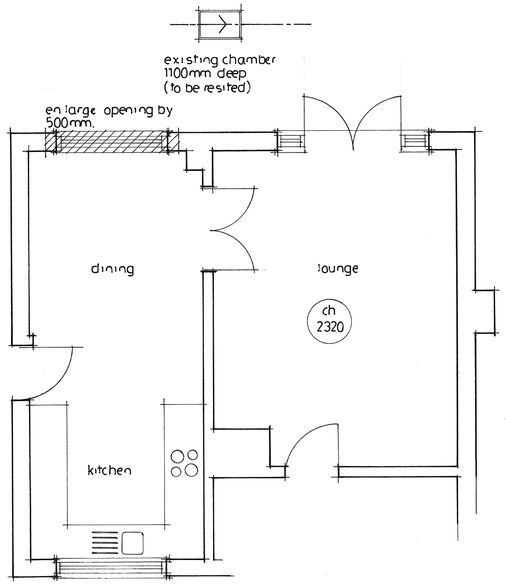
site location plan scale 1/1250

existing elevations scale 1/100

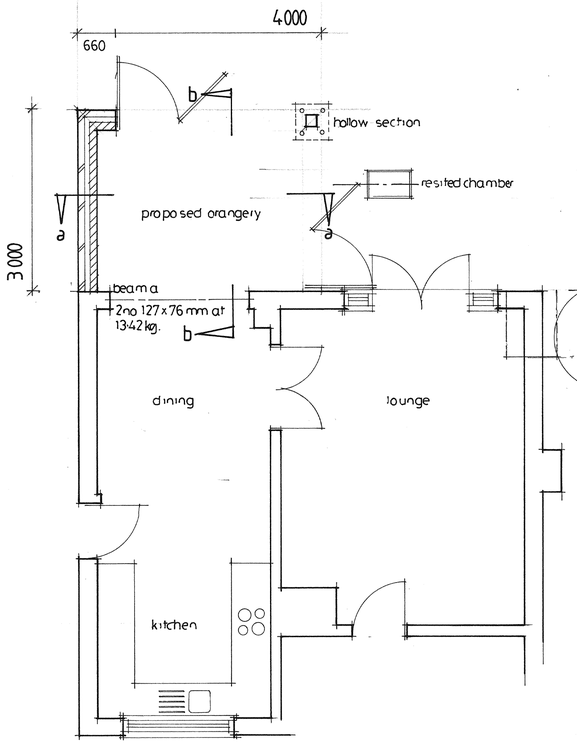


proposed elevations scale 1/100

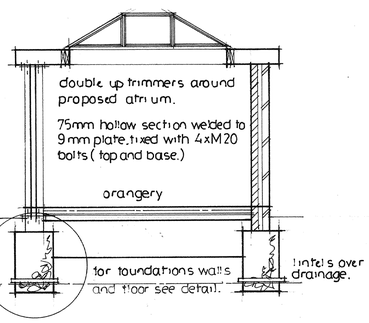




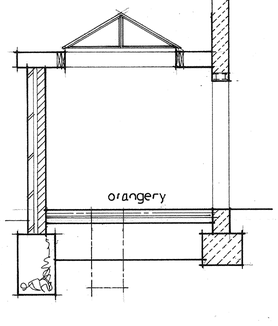
existing ground floor plan scale 1/50



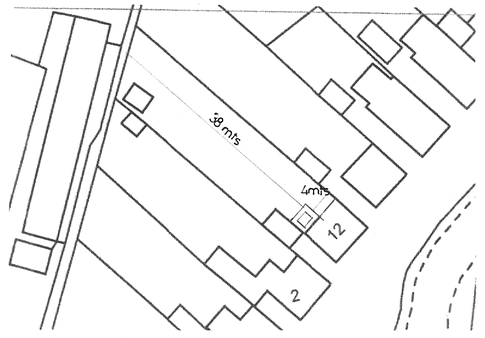
proposed ground floor plan scale 1/50.



section aa scale 1/50



section bb scale 1/50



site block plan scale 1/500

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O.S Map Licence Number MEM 00000111

Prior to commencement of work, the contractor and client are to check on-site all exterior dimensions, setting out positions, boundary positions and details to verify and agree upon. Any errors, omissions or design changes should be reported immediately to enable amended plans to be prepared and submitted for approval.

The requirement of the "Party Wall Act 1996" will apply to certain schemes. If the proposed work affects the Party Wall or is within 3 meters and deeper than the foundations of the nearby building the "Building Owner" has a responsibility to inform (in writing) and agree the works with the "Adjoining Owner(s)". If an agreement cannot be made then it may be necessary to engage a Party Wall Surveyor. Rick Cobham Design Ltd takes no responsibility for this.

The contractor will be responsible for locating all hidden services that may be affected by the proposal and stopping off or diverting as necessary. Drainage runs shown are assumed and must be checked on site before work commences. Any proposed building works within 3 metres of a public sewer will require a "building over/close to" application to be submitted and approved by the water authority prior to work commencing.

All work to comply with CDM 2015. The principle contractor (for projects with more than one contractor) must take on the legal duties of the client in addition to their own as principle contractor. If the domestic client has not appointed a principle contractor, the client's duties must be carried out by the contractor in control of the construction work.

This drawing is to be read in conjunction with any structural engineers' drawings and details.

CLIENT:	**Mr. Moreland**
LOCATION:	**12 Leen Close, Bestwood Village Nottingham, NG6 8 XD**
PROJECT:	**Single storey rear extension**
DRAWING TITLE:	**Existing and proposed elevations floor plan site location and block plan. section aa bb and specification**
DRAWING NUMBER:	**RS/KM/11/08/21/01**
REVISION:	
SCALE:	**1/50 1/100 1/500 1/1250**
BY:	**Rick Somersby DATE: 11th August 2021**

All drawings print off at A1