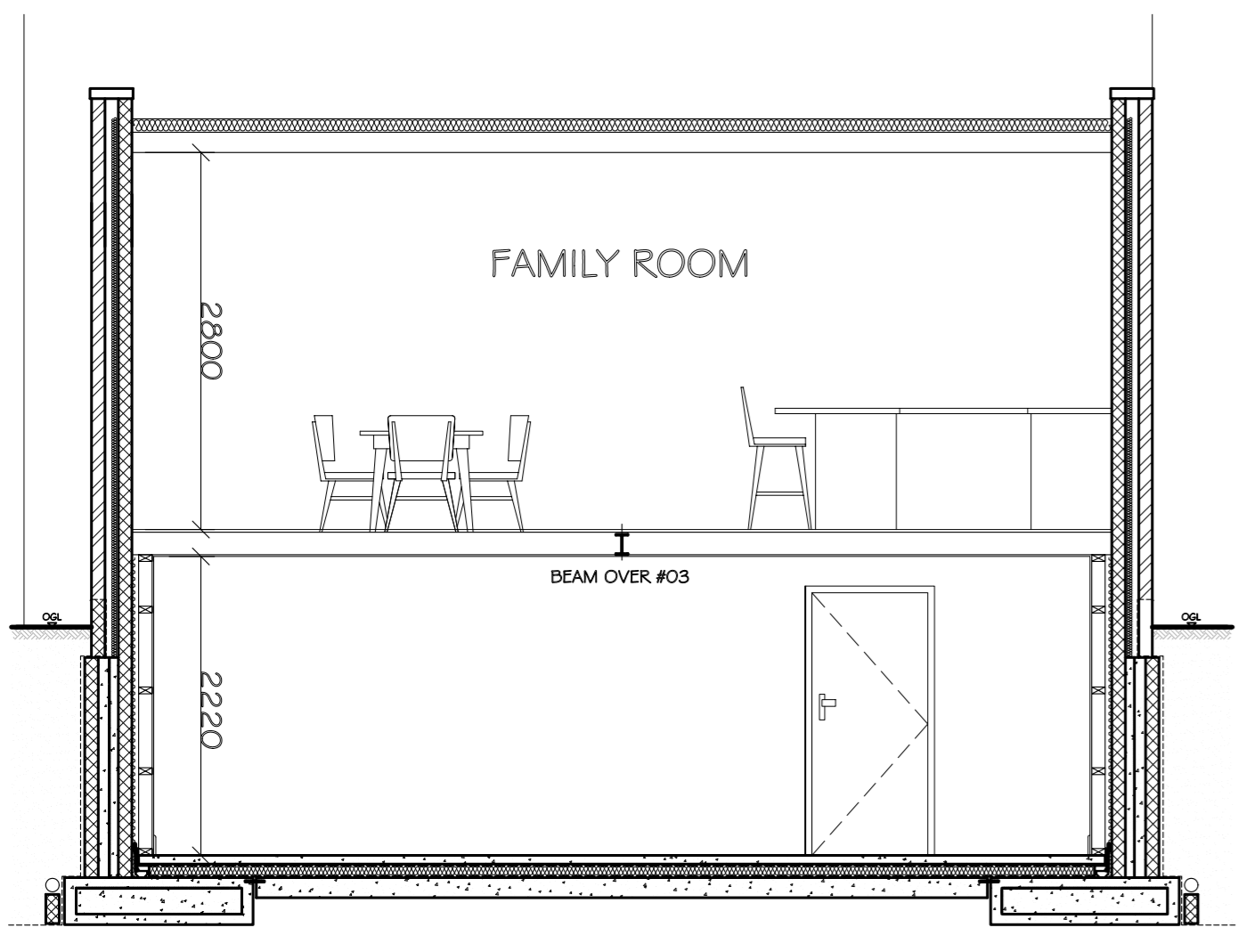
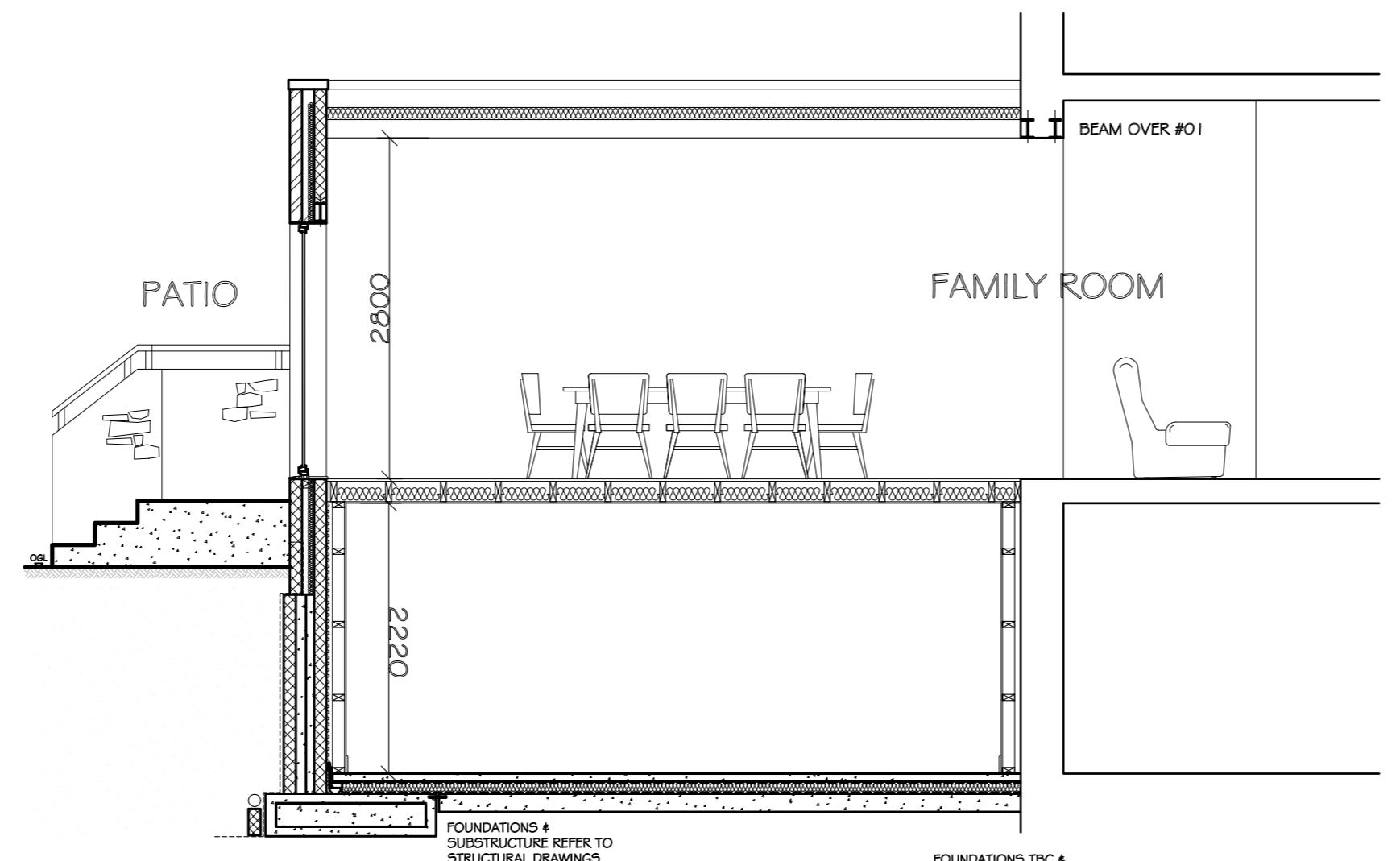


Revision  
C  
DRAWING No. AO20/211/BR/03

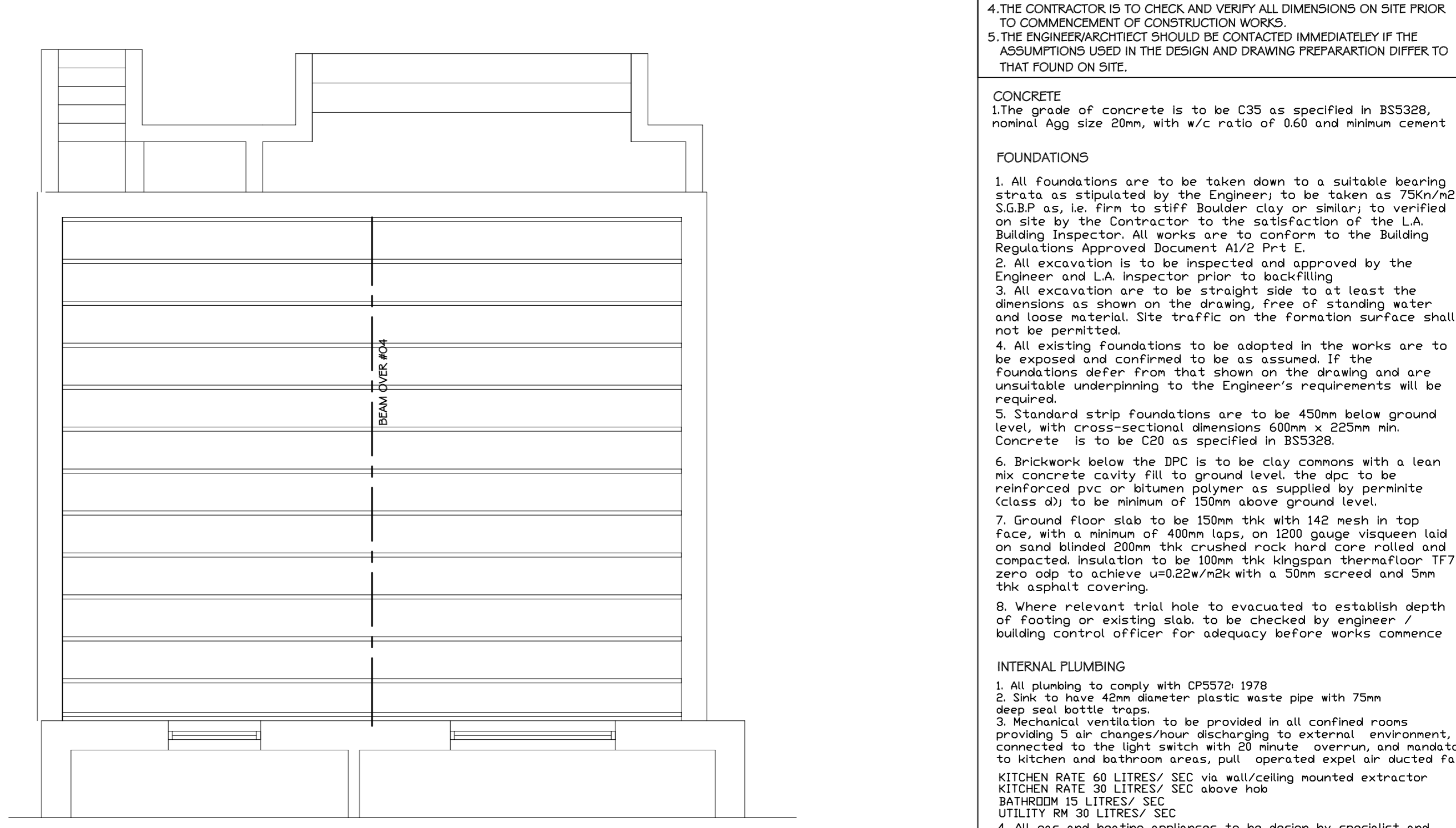
DO NOT SCALE DIMENSIONS FROM DRAWING



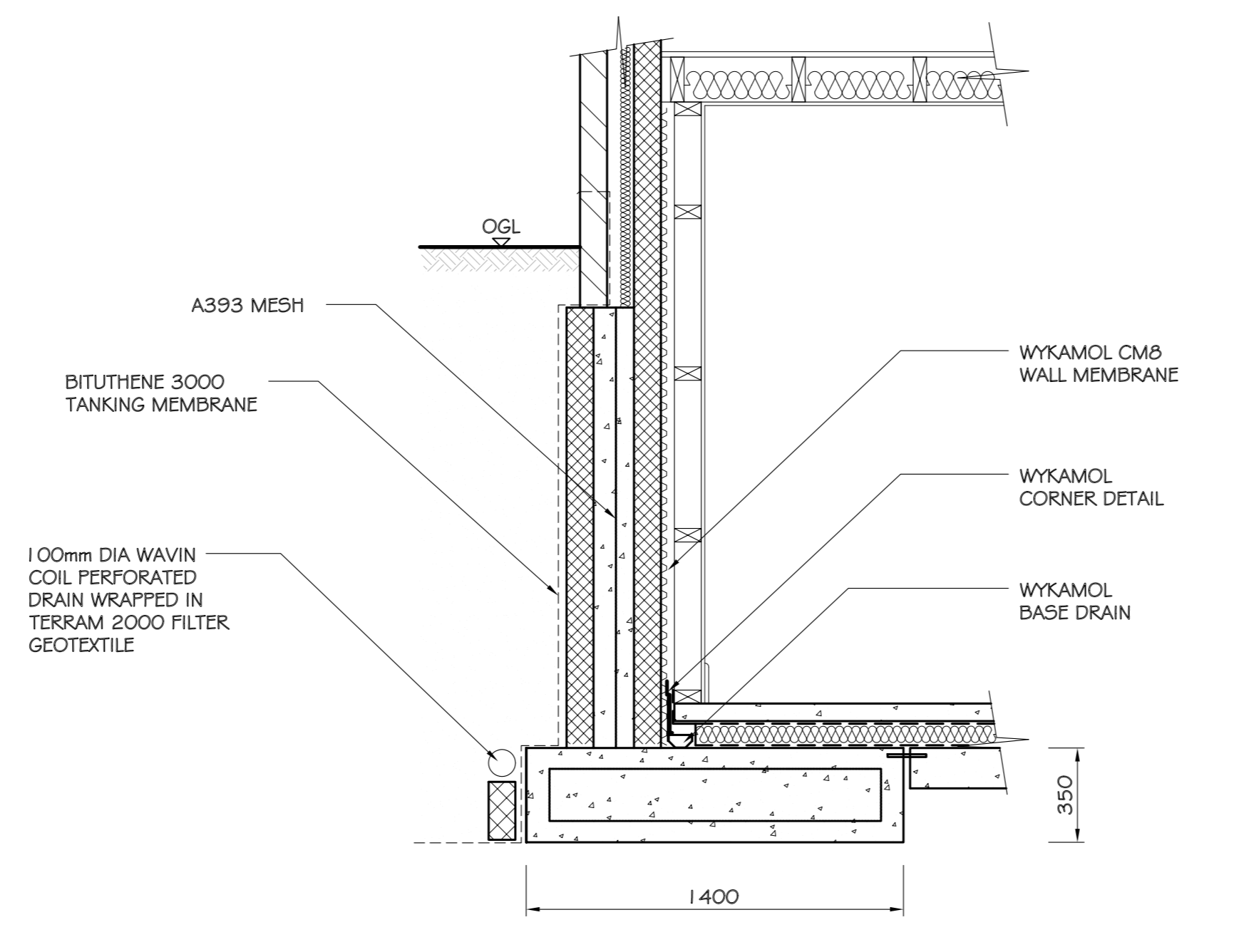
SECTION AA



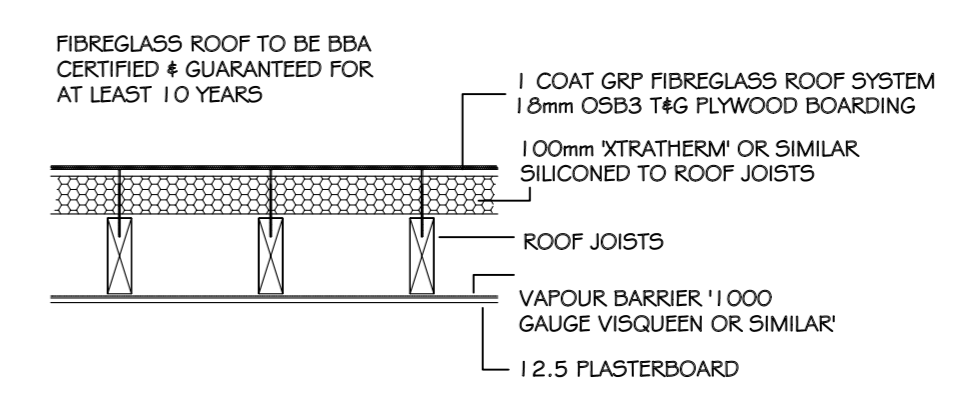
SECTION BB



ROOF TIMMER LAYOUT



FOUNDATION DETAIL SCALE 1:20

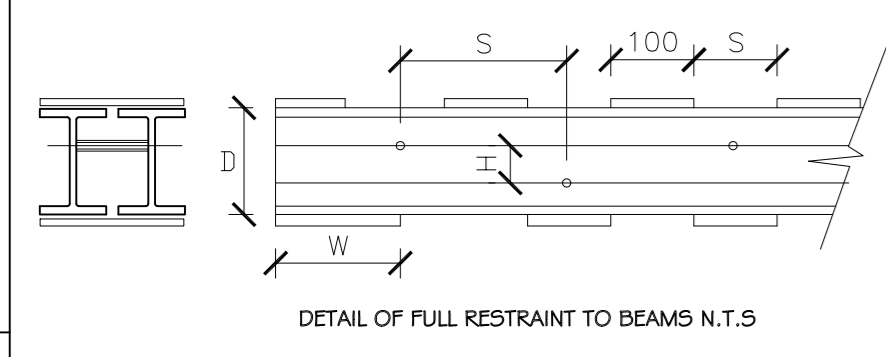


FLAT FLAT ROOF SPEC (ALTERNATIVE) SCALE 1:20

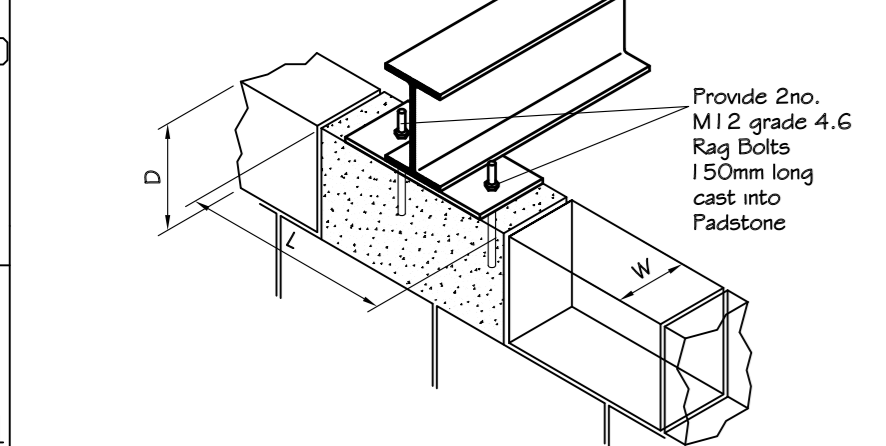
BEAM SCHEDULE						
BEAM No.	SPAN	SECTION SIZE	REACTION L	REACTION R	PADSTONE SIZE LEFT	PADSTONE SIZE RIGHT
BEAM #01						
BEAM #02						
BEAM #03						
BEAM #04						

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES.
  - DO NOT SCALE FROM THIS DRAWING.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELATED DRAWINGS AND DOCUMENTS. THE USER SHOULD CONSULT THE DRAWING ISSUE REGISTER FOR DETAILS.
  - THE CONTRACTOR IS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS.
  - THE ENGINEER/ARCHITECT SHOULD BE CONTACTED IMMEDIATELY IF THE ASSUMPTIONS USED IN THE DESIGN AND DRAWING PREPARATION DIFFER TO THAT FOUND ON SITE.
- CONCRETE**  
1. The grade of concrete is to be C35 as specified in BS5328. Nominal aggregate size 20mm, with w/c ratio of 0.60 and minimum cement.
- FOUNDATIONS**  
1. All foundations are to be taken down to a suitable bearing strata as stipulated by the Engineer; to be taken as 75KPa/m<sup>2</sup> S.G.B.P as, i.e. Firm to stiff Boulder clay or similar; to be verified on site by the Contractor to the satisfaction of the L.A. Building Inspector. All works are to conform to the Building Regulations Approved Document A1/2 Part E.  
2. All excavation is to be inspected and approved by the Engineer and L.A. Inspector prior to backfilling.  
3. All excavation are to be straight side to at least the dimensions as shown on the drawing, free of standing water and loose material. Site traffic on the formation surface shall not be permitted.  
4. All existing foundations to be adopted in the works are to be exposed and confirmed to be as assumed. If the Foundations differ from that shown on the drawing and are unsuitable underpinning to the Engineer's requirements will be required.  
5. Standard strip foundations are to be 450mm below ground level, with cross-sectional dimensions 600mm x 225mm min. Concrete is to be C30 as specified in BS5328.  
6. Brickwork below the DPC is to be clay comons with a lean mix concrete cavity fill to ground level, the dpc to be reinforced pvc or bitumen polymer as supplied by perminite (class d) to be minimum of 150mm above ground level.  
7. Ground floor slab to be 150mm thick with 142 mesh in top face, with a minimum of 100mm crushed rock hard core rolled and compacted, insulation to be 100mm thick kingspan thermafloor 1F70 zero oap to achieve u=0.22w/m<sup>2</sup>k with a 50mm screed and 5mm thick asphalt covering.  
8. Where relevant trial hole to be excavated to establish depth of footing or existing slab, to be checked by engineer / building control officer for adequacy before works commence.
- INTERNAL PLUMBING**  
1. All plumbing to comply with CP5572: 1978  
2. Sink to have 42mm diameter plastic waste pipe with 75mm deep seal bottle traps.  
3. Mechanical ventilation to be provided in all confined rooms providing 5 air changes/hour discharging to external environment, connected to the light switch with 20 minute overrun, and mandate to kitchen and bathroom areas; pull operated expel air ducted for KITCHEN RATE 60 LITRES/ SEC via wall/ceiling mounted extractor BATHROOM 15 LITRES/ SEC above hob UTILITY RM 30 LITRES/ SEC  
4. All gas and heating appliances to be design by specialist and installed by CDGI registered fitter.  
5. Radiators must be marked on drawings to be fitted with thermostatic valves to every room.  
6. Boiler condenser - combi boiler to be seasonally adjusted TRV/ thermo st. controlled Sedbuk rating of boiler to be 86%  
7. Any soil pipes that pass through the floor to be fitted with intumescent quefire collars & boxed off with 13mm plaster board and sound insulated.  
8. Heat recovery fans. sfp. cont. 0.8l/s.s minimum 66% efficiency  
9. All svps to be clad with 2 ply plasterboard to achieve one hour fire resistance and sound insulated with rockwool.  
10. Where waste runs are excessive use anti siphon traps or 50mm pipes and or air admittance valves to be fitted in accordance with building regulations approved document LBI  
11. all Extractors & ventilation rates in accordance with approve document F.
- FLAT ROOF CONSTRUCTION**  
1. All roof construction to conform to Approved Document A1/1 Part B Table B2 of the Building Regulations  
2. Flat roof joist to be 100 x 75mm timber section at 400mm c/c  
3. Bracing provided by 50 x 50mm timber noggin  
4. All timber to be tanalised or similarly treated against fungal growth and moisture resistance  
5. All timber to be grade C16, unless otherwise specified  
6. Wall plate to be 100 x 75mm timber section mortar bedded to inner leaf and fixed with BAT straps V11200mm at 1800mm c/c  
7. 12.5mm thick plasterboard and Artek skin ceiling provided to soffit  
8. Facia to be 225 x 25mm PAR timber section  
9. Flat roof joist to be C16 timber at 400mm c/c  
10. 1 in 60 tapered firings fixed to rafters  
12. Felt Roof system to be 3 layer elastomeric roofing felt to BS 747 Rubervert Type 3D vent layer on two layers of polybit 180 top layer green mineral finish on 18mm ply all above roof joists. Insulation & vapour barrier to underside of rafters with 12.5 plasterboard  
13. Insulation to warm roof system to be kingspan 150mm tr2 zero oap over joists & 140 plywood boarding 100mm xtratherm or similar siliconed above roof joists & vapour barrier 1000 gauge visqueen or similar to underside of rafters and 12.5 plasterboard plastered & skimmed  
15. All dimensions to be checked on site prior to fabrication.



DETAIL OF FULL RESTRAINT TO BEAMS N.T.S



TYPICAL PADSTONE DETAIL

**STEELWORK**  
1. All steelwork to be grade 43A in accordance with BS4360, unless specified otherwise.  
2. The Contractor is to ensure all existing structure is adequately propped prior to forming new openings. Brickwork is to be wedged and packed with dry mix mortar and slates over new beams prior to the removal of the props.  
3. Where so marked as bolted together beams are to be secured together with M12 blackbolts in sleeves at 600mm c/c along web staggered top and bottom, together with 6mm thick x 125mm wide plate welded to top and bot. flanges at 600mm c/c. Bearing plates to be 12mm thick minimum 450mm wide welded to bot/flange.  
4. All welds to be 6mm fillet welds unless specified otherwise.  
5. All beams to be seated on minimum 100mm bearing on C20 cast in situ concrete padstones as shown on drawing. Nominal size to be 100mm thick x 200mm deep x 215mm long, 18 dense concrete block.  
6. All proprietary systems to be fixed in accordance with manufacturers details and specifications.  
7. All steelwork to be free from rust and mill scale and shot blasted to standard 2A. To be spray painted in the fabrication shop with Iko. Coat of zinc rich primer, 50 microns, zincatech or similar. All chips and handling scars to be touched up on site when in position.  
8. Fire resistance to be a minimum of 1 hour; provided by 2 ply plasterboard and skim, with staggered joints; or an approved intumescent paint such as Nullifire or similar.  
9. All steelwork joints to be detailed by steelwork fabricator, unless indicated on the drawing.  
10. All bolts to be M12 A6. Black bolts unless specified otherwise, to be spun hot dip galvanised.

**DOORS**  
1. All doors to meet U-Value = 1.8  
2. All internal doors to have 10m gap under door for ventilation  
3. All internal doors without direct ventilation to have louvred vents in doors fitted with smoke seals  
4. All internal doors to common areas to be min 750mm clear opening  
5. All door to comply with doc n table 4 in relation to corridor widths  
6. All windows & doors are to be made in accordance with bs standards & building regulations.  
7. Where necessary existing door frames to be checked for suitability to fit F&D0 doors with intumescent strip  
8. F&D0 door to be fitted with smoke seals and intumescent strip to door leading to main house

**WINDOWS**  
1. All windows are to be double glazed, U=1.6w/m<sup>2</sup> - 16mm cavity with 90% argon fill & low E coating  
2. All frames are to be proprietary system UPVC system, to match existing.  
3. Trickle ventilation to be fitted to all frames, minimum 8000mm<sup>2</sup> to new habitable areas, 4000mm<sup>2</sup> to other areas.  
4. All windows to be fitted with window locks  
5. Minimum openers to be 1/20th floor area, to be as indicated on the drawing.  
6. New escape windows to be min. 0.33 sq m dimensions smaller than 450mm clear opening maximum sill height 1100mm, min sill height 800mm  
7. Toughened Safety glazing to be provided on all windows up to 800mm above finished floor level and 1500mm on doors + 300mm side panels  
8. Existing windows and doors must achieve, Min U= 1.8 w/m<sup>2</sup>/k and contain safety glazing in all critical areas.  
9. Glazing not to exceed 25% of floor area to extended dwelling  
10. When ventilation not from existing windows ventilation to be 20 of floor area to 8000mm<sup>2</sup> in accordance with approved doc F.

**ELECTRICAL & MECHANICAL DETAILS**  
1. The electrical and mechanical works shown on this drawing are a representation of the clients requirements only and it is the responsibility of the specialist to design and provide details, drawings and provide instruction and maintenance manuals and records.  
2. These items are to be fitted by a specialist contractor who is NICEIC approved and should refer to the specialist drawings. For electrical wiring and mechanical ventilation and heating systems.  
3. All light switches to be posn 1200mm above ffl max  
4. All plug sockets to be posn 450mm above ffl except kitchen & utility areas which are 1200mm high  
5. Efficient low energy lighting is required to satisfy Approved Doc F.  
6. All fire detection to be mains operated & interlinked to comply with BS 5839  
7. All electrical work to be completed or inspected by a registered competent persons registration scheme and an adequate certificate to be issued prior to completion  
8. Smoke detectors and heat detectors to be inter linked & separately mains operated & independent & battery back up  
9. Extractor to be humidity thermo-statically controlled vent with heat recovery system

**EXTERNAL WALLS**  
1. All blockwork to comply with BS5628  
2. External walls to be constructed from 102mm thick clay facing brick to match existing structure. Cavity to be cleared of all internal spots, closed with propriety cavity closure or slate or soldier course.  
3. Insulation to be provided by 50mm thick kingspan thermawall TWS0 zero oap or similar approved  
4. Inner leaf to be 100mm thick Thermalite 'Shield 2000' concrete blocks. (U=0.28w/m<sup>2</sup>/k, Fk=5m/m<sup>2</sup>)  
5. Internal blockwork to have 2 coat plaster and skim 13mm thick  
6. Cavity ties to be stainless steel double drip triangular ties to BS1243, at staggered centres 750mm c/c horizontally and 450mm c/c vertically  
7. Openings to be closed with 'Thermax' proprietary insulated cavity closer system.  
8. Insulated cavity closer system.  
9. Insulated cavity closer system.  
10. Insulated cavity closer system.  
11. Insulated cavity closer system.  
12. Insulated cavity closer system.  
13. Insulated cavity closer system.  
14. Insulated cavity closer system.  
15. Insulated cavity closer system.

**INTERNAL WALLS**  
1. All internal walls to be 100mm blockwork with 13mm two-coat plaster skim to both sides  
2. Non load bearing walls are to be timber stud walls, 125mm thick plaster board taped and skimmed both sides on 105 x 50mm timber framing at 600mm c/c, 100mm rockwool insulation infill to void  
3. All walls between habitable rooms and washrooms to be sound insulated  
4. Where relevant walls to comply with doc E should be 15mm plaster board or 12mm sound block  
5. Stud partition up to underside of floor to provide protected escape route min 1 hour fire protection required

**SPECIFICATION**  
**Standards**  
All work to be in accordance with British Standards and to manufacturers recommendations. If Contractor wishes to use manufacturers different to that specified they shall only be permitted if prior approval given by Architect/Supervising Officer.  
**Materials**  
Manufacturers/Supplier: Dsmo Soil pipes to BS4514 in PVC-U nominal size 110mm. Wastes to BS255/3493 as appropriate in ABS or PP nominal sizes 50mm, 40mm and 32mm. Traps to BS255/3493 as appropriate in PP or PE. Overflows to BS255/3493 as appropriate in PVC-U or PE.  
**Workmanship**  
All to be installed to BS5572. All soil pipes to have roading access points at changes of direction all solvent welded wastes to have cleaning access points at changes of direction.  
**Finishes**  
Soil pipes to be self colour or painted to specification Wastes and overflows self colour but, to be painted when exposed to view or sunlight.  
Hot water system to be confirmed & kitchen layout to be finalised.

**PART G (SANITATION, HOT WATER SAFETY AND WATER EFFICIENCY)**  
water efficiency, 125 litres/head/day of wholesome water, resulting from the design of the cold and hot water systems, for each individual dwelling/flat, should be no greater than this target. prevent the temperature of the water stored in the vessel/cylinder, at any time exceeding 100 degrees centigrade any discharge from safety devices, is safely conveyed to where it is visible, but will not cause danger to persons about the building. inadequate to be replaced.  
14. Brickwork below the DPC is to be clay comons with a lean mix concrete cavity fill to ground level, the dpc to be reinforced pvc or bitumen polymer as supplied by perminite (class d) to be minimum of 150mm above ground level.

TYPE	U-VALUE (W/m <sup>2</sup> /K)	METSEC REFERENCE	DESIGN CAVITY WIDTH	OVERALL LENGTH (U) mm
MT2	2	MT2-200	90 to 110	225
MSRC				

For use with see Ref. M1, M2, M3, M4 and M5 shown above

**EXTERNAL DRAINAGE SPECIFICATION**  
1. All existing sewer information has been supplied by Client. The contractor should verify invert levels assumed prior to construction. Any variation should be reported to this office immediately.  
2. All work shall comply with Roads for adoption edition No4 and United Utilities PLC standard document coupled with the CESVI spec., and the Building Regulations Approved document part H. In the event of conflicting reqs the United Utilities PLC spec. takes precedence.  
3. All pipes are to be class M vitrified clay pipe to BS 65 with flexible sleeve connections or concrete pipes with spigot and socket joints to BS 5911 Part 100 as detailed on the drawing.  
4. Pipes are to be laid straight in trenches to gradients as detailed, where none are given defaults shall be:  

Dia.	Min	Max
100	1100	140
150	1150	160

5. Pipes are to be bedded on single size 'pea' gravel nominal dia 10mm to BS 882, minimum thickness 100mm with selected stone surround, nominal size 40mm. Backfill as detailed.  
6. Where cover is less than 400mm or adjacent to foundations the surround and backfill is to be C20 concrete with flexcell at pipe joints.  
7. All cut ends to be treated with epoxy resin.  
8. Pipes to be tested using a standard air test allowing 38mm loss of head in any 3 minute period.  
9. Connection to the main sewer to the satisfaction of the Local Authority.  
10. Back drop connection to be made at soffit level, pipe diameter to be 150mm.  
11. All manhole covers to be class A heavy duty cast iron, minimum opening 600 x 600mm bedded on class 1 mortar and class B brick, min 1 course max. 3 course. Note Bricks shall not contain frogs or holes.  
12. Manhole rings to BS 5911 Part 200 sizes  

as/pipe	dia	Depth	MH Dia	Channel
1	150	250	1200	950
2	150	500	1200	1050
3	225	250	1200	950
4	225	350	2400	1400

Manhole to have rockler pipe 750mm long with 18mm compressible filter.  
Rings to have min 150mm C20 concrete surround. Base min 225mm thick C30 concrete with A142 mesh in bot. All manholes to have step irons as detailed Safety chains read in manhole SE, up stream of 975mm pipe. Connection of all pipes to be to soffit, unless detailed differently.  
13. All rainwater goods to be UPVC 112mm Half Round Gutter Systems Fascia brackets should be spaced no more than 1000mm apart on straight gutter runs with 68mm down pipes.  
14. Ensure lintle over where waste pipe passes through wall

Rev.	Amendments	Date	By
C	Minor Amendments	26/11/20	PB
B	Minor Amendments Notes Added	24/11/20	PB
A	Client Amendments To Roof	20/11/20	PB

**Keystone Design Associates Ltd.**  
Registered Office  
Development House  
23 Church Street  
Buckpool  
Tel. No. 01253 649040  
Fax No. 01253 752900  
Email: info@keystonedesign.co.uk

PROJECT ADDRESS  
53 THORNCLEIFFE ROAD  
BATLEY, YORKSHIRE

PROJECT TITLE  
REAR EXTENSION

DRAWING TITLE  
PROPOSED SECTIONS

Client	SHAZ RAYAZ	Scales	1:50/20@A1
Drawn	JG	Checked	Date 04/11/2020
DRAWING No.	AO20/211/BR/03	Revision	C

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