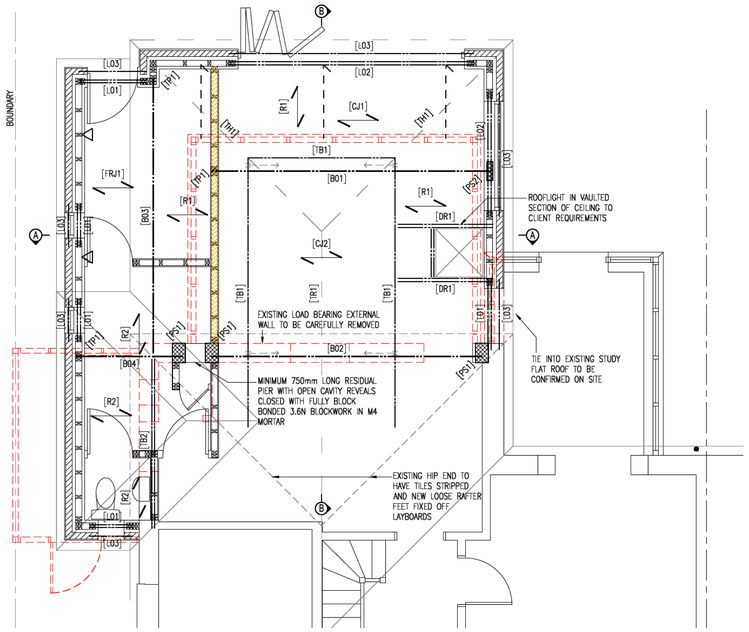
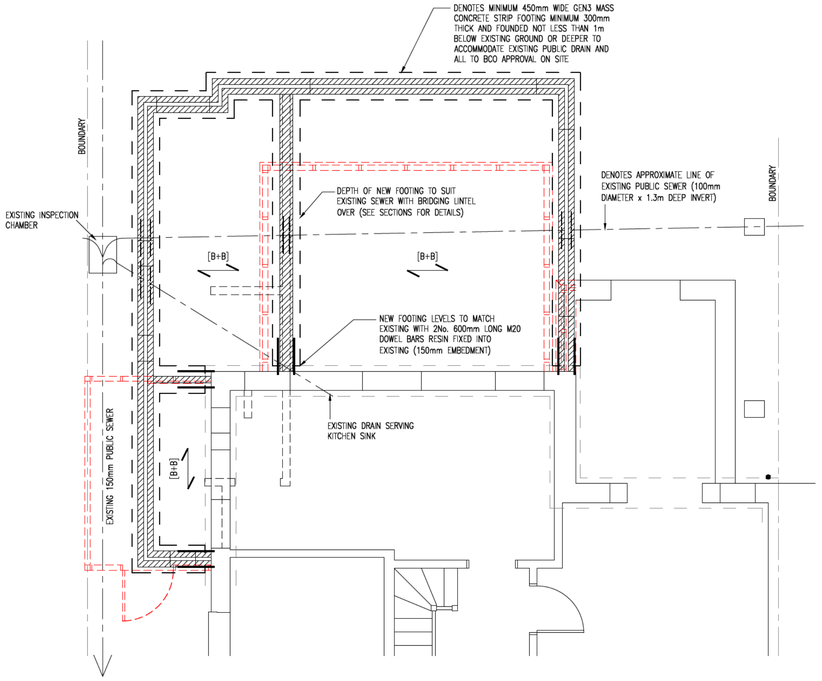


PART GROUND FLOOR PLAN
(SHOWING PROPOSED STRUCTURE OVER)
(1:50)



PART FOUNDATION PLAN
(1:50)

LEGEND

- DENOTES EXISTING WALLING TO BE REMOVED
- DENOTES MINIMUM 28 x 4.0mm GMS LATERAL RESTRAINT STRAPS AT MAXIMUM 2m CENTRES IN ACCORDANCE WITH BUILDING REGULATIONS PART A
- DENOTES MINIMUM 28 x 2.0mm GMS VERTICAL RESTRAINT STRAPS MINIMUM 1m LONG HOOKED OVER WALL PLATE AT MAXIMUM 2m CENTRES IN ACCORDANCE WITH BUILDING REGULATIONS PART A
- DENOTES TIMBER STUDWORK 47 x 97mm C16 STUDS AT MAXIMUM 400mm WITH HEAD AND SOLE PLATES AND TIMBER NOGGINS AT 1200mm CENTRES. STUDS TO BE TRIPLED UP AT VERTICAL REVEALS. EXTERNAL TIMBER STUDWORK TO HAVE MINIMUM 9mm THICK OSB/3 EXTERNAL SHEATHING FIXED WITH 2.25mm DIAMETER NAIL FIXINGS AT 150mm CENTRES
- DENOTES LOAD BEARING INTERNAL TIMBER STUDWORK PARTITION AS ABOVE BUT PLY SHEATHED BOTH SIDES WITH 9mm OSB/3
- [PS1] MINIMUM 215 x 140mm DEEP PRECAST CONCRETE PADSTONE x WIDTH TO MATCH EXISTING CAVITY WALLING
- [PS2] MINIMUM 250 x 100 x 15mm THICK MILD STEEL BEARING PLATE
- [B+B] DENOTES SPAN OF 155mm DEEP S520 PRECAST BEAM AND BLOCK SUSPENDED FLOOR SLAB BY SUPREME CONCRETE OR SIMILAR APPROVED (SPECIALIST DESIGN ELEMENT) IMPOSED LOAD ALLOWANCE OF 1.5kN/m² + 0.5kN/m² FOR LIGHTWEIGHT PARTITIONS

STEEL SCHEDULE

[B01–B02] 152 x 152 UC 23 (S355)
[B03–B04] 152 x 89 UB 16 (S355)

LINTEL SCHEDULE

[L01] 2No. 47 x 145mm C24 COMPOUND TIMBER LINTEL
[L02] 2No. 47 x 220mm C24 COMPOUND TIMBER LINTEL
[L03] L7–50 TIMBER FRAME OUTER LEAF LINTEL BY LG LINTELS OR SIMILAR APPROVED

TIMBER SCHEDULE

- [R1] DENOTES SPAN OF 47 x 125mm C16 RAFTERS AT 400mm CRS
- [R2] DENOTES SPAN OF 47 x 100mm C16 RAFTERS AT 400mm CRS
- [CJ1] DENOTES SPAN OF 47 x 195mm C16 CEILING JOISTS AT 400mm CRS
- [CJ2] DENOTES SPAN OF 47 x 145mm C16 RAISED CEILING TIES AT 400mm CRS
- [FRJ1] DENOTES SPAN OF 47 x 100mm C16 FLAT ROOF JOISTS AT 400mm CRS
- [TB1] 63 x 200mm C24 CANTED TIMBER PURLIN BEAM
- [TB2] 2No. 47 x 170mm C24 TIMBER BEAM
- [TH1] 47 x 195mm C16 TIMBER HIP MEMBER
- [TR1] 47 x 195mm C16 TIMBER RIDGE MEMBER
- [TP1] 3No. 47 x 97mm C16 TIMBER POST
- [DR1] DOUBLED UP RAFTER FOR ROOFLIGHT TRIMMING
- DENOTES 75 x 100mm C16 TIMBER PURLIN STRUT

DESIGNER HAZARDS

IN ADDITION TO THE HAZARDS NORMALLY ASSOCIATED WITH THE TYPE OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING:

REMOVAL OF LOAD BEARING TIMBERWORK & WALLING
TEMPORARY WORKS AND SEQUENCING TO CONTRACTORS OWN DESIGN AND DETAILS. REFER TO BEAM SAFE WORKING LOADS IN DESIGN CALCULATIONS.

INSTALLATION OF LONG/HEAVY STEEL BEAMS
CONTRACTOR TO PREPARE LIFT PLAN IN ADVANCE – APPROXIMATE TOTAL WEIGHT OF BEAMS AND SPLICE DESIGNS AVAILABLE UPON REQUEST

WORKING AROUND LIVE PUBLIC DRAIN
CONTRACTOR TO LOCATE EXISTING DRAIN (APPROX. 1.3m DEEP INVERT) AND PROCEED WITH CAUTION EMPLOYING LOCAL HAND DIG TO AVOID DAMAGE TO EXISTING DRAIN. NOTIFY SOUTHERN WATER/BCO IN ACCORDANCE WITH BUILD OVER AGREEMENT REQUIREMENTS

EXISTING STRUCTURAL ARRANGEMENT
BASED ON VISUAL NON–INTRUSIVE SURVEY ONLY. ANY STATED DESIGN ASSUMPTIONS ARE TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF THE MAIN WORKS PARTICULARLY THE RELIANCE ON EXISTING INTERNAL PARTITIONS FOR BEAM SUPPORT – CONFIRMATION REQUIRED OF EXISTING WALL CONSTRUCTION/THICKNESS AND EXISTING FOUNDATIONS BY TRIAL PITS INDICATED

1.0 GENERAL

(i) This drawing is not to be scaled, work to figured dimensions only, confirmed on site.

(ii) This drawing is to be read in conjunction with all relevant architectural drawings, detailed specifications where applicable and all associated drawings in this series.

(iii) Any discrepancy on this drawing is to be reported immediately to the engineer for clarification.

(iv) The contractor is responsible for all temporary works and for the stability of the works in progress.

2.0 SUBSTRUCTURE

(i) External cavity work below DPC to be in brickwork or Class A dense concrete blockwork with lean mix concrete cavity fill minimum 150mm below DPC and haunched to outer face.

(ii) Sleeper walls in 215mm brick/dense blockwork as required to support suspended ground floor.

(iii) Sulphate resisting cement mortar to be used as necessitated by ground conditions.

3.0 CONCRETE AND REINFORCEMENT

(i) Concrete generally to BS 8500-2 and BS EN206-1.

(ii) Designated concrete mixes to be as follows:
- a: Blinding - GEN 1
- b: Mass concrete foundation - GEN 3
- c: Reinforced concrete - RC 32/40

(iii) Maximum aggregate size to be 20mm.

(iv) Reinforced concrete elements to have 50mm concrete blinding beneath when cast on the ground.

(v) All materials, workmanship, construction and tolerances to latest edition of National Structural Concrete Specification for Building Construction.

(vi) Concrete finishes; unless noted otherwise, to be as follows:-
- a: Formed finishes hidden from view - basic finish
- b: Formed finishes exposed to view - plain finish
- c: Tops of ground beams and other foundations - smooth floated finish.
- d: Tops of RC elements exposed to view or slabs - steel trowel finish

4.0 STRUCTURAL STEELWORK

(i) All plates & flats to be grade S275JR, all hot rolled sections to be grade S355JR unless otherwise noted. All to standard BS EN 10025-1:2004.

(ii) All structural hollow sections are to be hot rolled to BS EN 10210-1: 2006, grade S355J2H to BS EN 10025-2.

(iii) All structural steelwork shall comply with the latest addition of the "National Structural Steelwork Specification For Building Construction". All fabricated steelwork shall comply with BS EN 1090-1 (Execution Class EXC2).

(iv) All surface preparation work to steelwork to be in accordance with BS7079:2009. All steelwork to be blast cleaned to SA2.5 unless otherwise stated.

(v) Structural Steelwork coating to be as follows :-
a) 1 shop applied coat of Zinc Phosphate Epoxy Primer 80 microns DFT touched up on site where required.

(vi) All bolts to be M20 Grade 8.8 and conform to BS EN 15048-1:2007 unless otherwise stated. All welds to be min. 6mm fillet welds unless otherwise stated.

(vii) All steelwork below ground to be unpainted and encased in Grade RC32/40 concrete (min cover to steelwork 75mm) reinforced with D49 mesh (min cover to reinforcement 40mm) unless noted otherwise.

5.0 STRUCTURAL TIMBERWORK

(i) All timber to be strength class C24 to BS EN 338 unless otherwise stated.

(ii) Where double or triple members are indicated, these are to be M10 bolted at 450mm centres with double sided tooth plate connections.

(iii) All joints and fastenings should be formed in accordance with the appropriate recommendations of BS EN 1995.

(iv) Notches and holes in structural timberwork will not be permitted without prior agreement with the engineer.

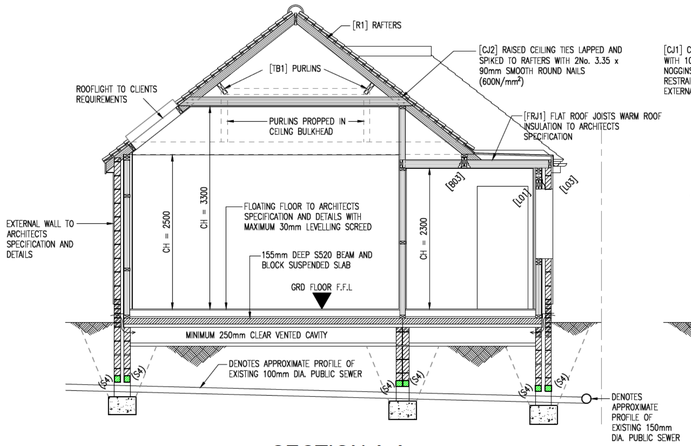
(v) All Strapping to the new floor and roof to be in accordance with Part A of the building regulations. Straps to provide lateral restraint to walls and prevent uplift. Straps to be in accodance with BS EN 845-1 and be corrosion resistant i.e. Galvanised and provide a minimum SWL 8kN. For exemption where strapping may be omitted refer to Building Regulations Part A for further details.

6.0 LINTELS

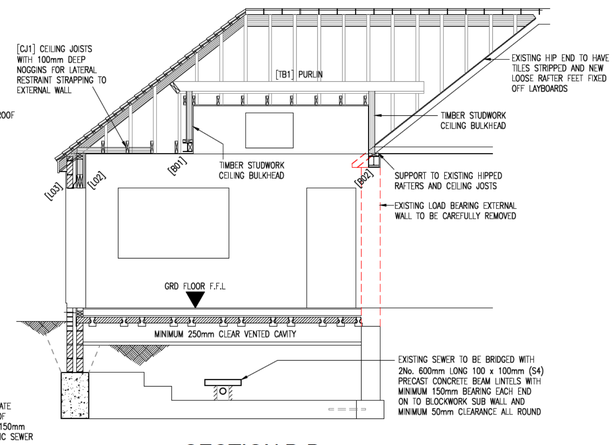
(i) All lintels (unless otherwise stated) to be within the :-
CN series to be supplied by CATNIC.
IG series to be supplied by IG Lintels.

(ii) P.P.C.L's (Precast Prestressed Concrete Lintels) to be Naylor Hi-Spec range or similar approved.

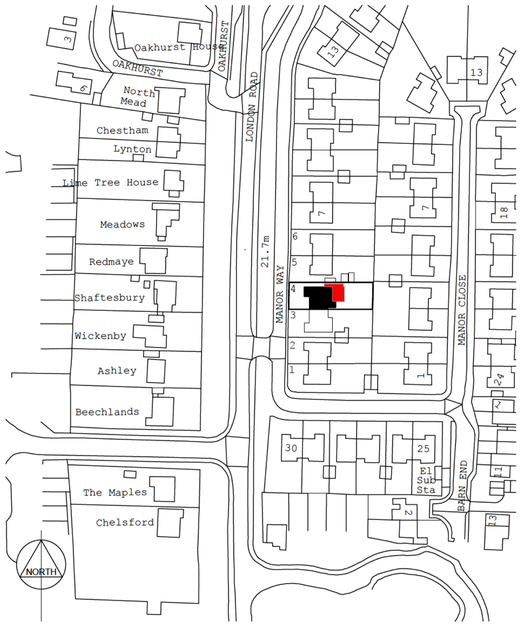
(iii) All lintels to have minimum 150mm bearing unless noted otherwise, to bear onto whole block or brick (not cut blocks or bricks).



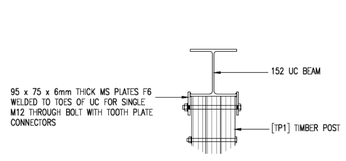
SECTION A-A
(1:50)



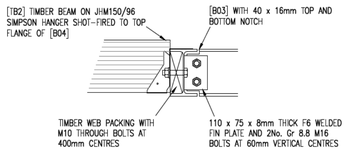
SECTION B-B
(1:50)



SITE LOCATION PLAN
(1:1250)



STEEL BEAM/TIMBER POST CONNECTION
(1:10)



[B03]-[B04] CONNECTION
(1:10)

1:20 0.2m 1m
1:50 0.5m 2.5m
1:100 1m 5m
Scale AS SHOWN Original Drawing Size A1

Description	By	Chkd	Date	Rev
ISSUED FOR BUILD NG REGULATIONS APPROVAL	ST	RJ	31.10.23	P1

Status: FOR BUILDING REGULATIONS APPROVAL

Title: SINGLE STOREY EXTENSION

Project: 4 MANOR WAY, HENFIELD

Client: MIKE DARK

CORE STRUCTURES
CHARTERED STRUCTURAL ENGINEERS
www.corestructures.uk

Drawing No. 1050-2-001 Rev P1