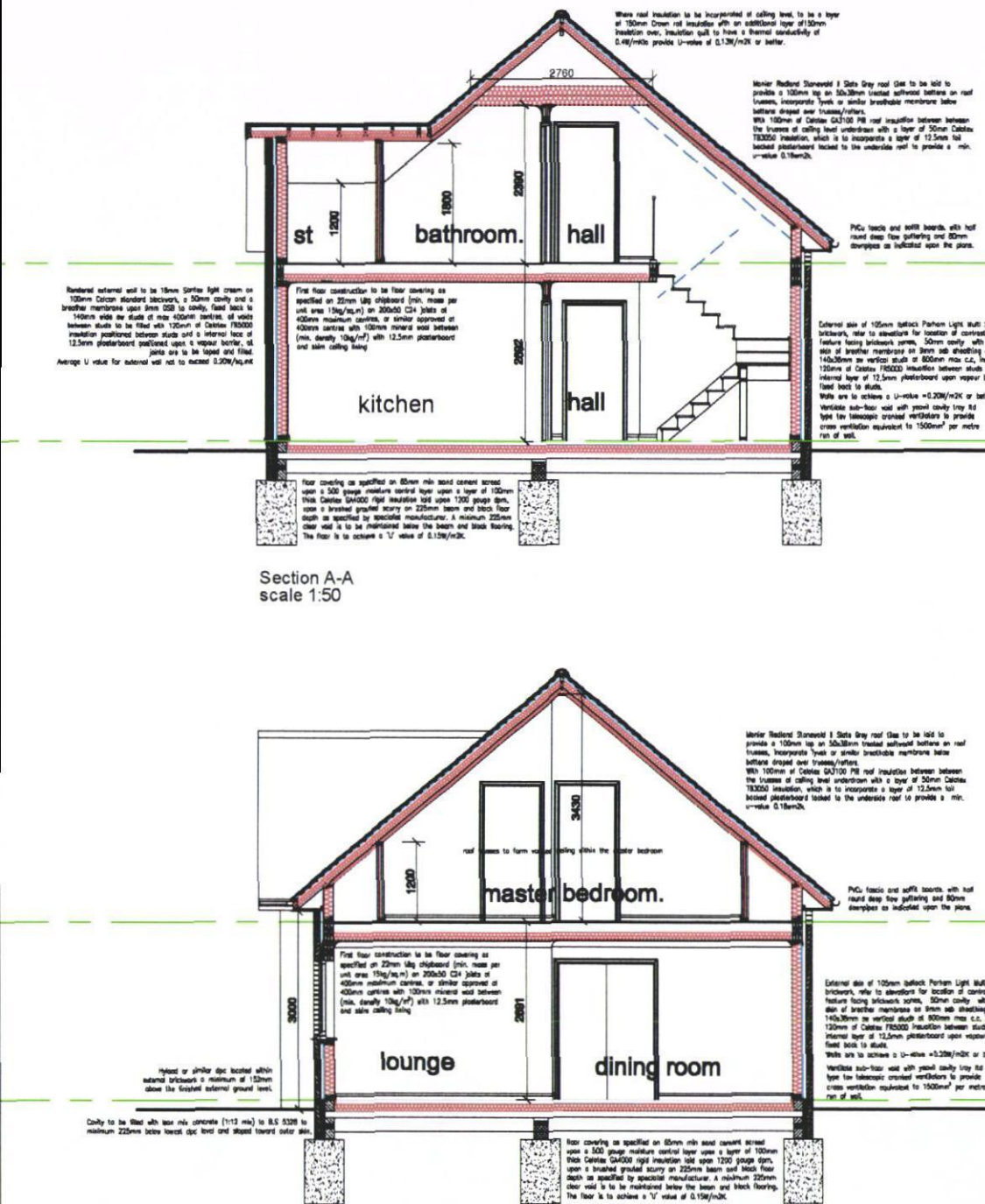


CONSTRUCTION NOTES

- 1.00 FOUNDATIONS
1.01 Standard trench fill foundations of construction. Foundations to be of a depth as determined by the Local Authority based on trial pits / soil evaluations etc undertaken by the structural engineer.
1.02 Foundations are to be at or below invert level of adjacent drains which are within 1.0m (or in accordance with Diagram A2 of Part H1 of the 1990 Approved Documents).
1.03 Concrete to be C30 class DSI, composed of cement to BS 12188 and fine coarse aggregate to BS 882:1983 (unless chemically aggressive soil).
1.04 Proportion to be 50kg of cement to not more than 0.1m3 of fine aggregate and 0.2m3 of coarse aggregate to Grade ST1 concrete to BS 5328:Part 2.
1.05 Wall to be located centrally on foundations unless otherwise specified. The thickness of the foundations to be not less than projection from foundation to wall faces, or subject to LA approval.
1.06 Sleeves to be provided where utilities pass through foundations.
1.07 Openings formed in walls where drains pass through with precast concrete slabs. Allow minimum 50mm gap around pipe. The opening shall be masked either side with suitable rigid sheet material to prevent the entry of vermin.
2.00 ROOFING
2.01 Four water drains in PVC-U or vitrified clay pipes with flexible joints are to be laid on minimum granular fill at minimum 1 in 80 falls (unless otherwise stated) to bed and surrounded to suit drain location and in accordance with diagram 8/7 and Table 8 of Part H1 of the 1990 Approved Documents (refer also to diagram A3/A4 where minimal cover). PVC-U pipes to comply with BS 4580 and BS 5481. Vitrified clay pipes to comply with BS 85 and BS EN 285.
2.02 Surface water drains in PVC-U or vitrified clay pipes with flexible joints laid as noted in 2.01 on bed and surrounded to suit drain location and in accordance with diagram 8/7 and Table 8 of Part H1 of the 1990 Approved Documents (refer also to diagram A3/A4 where minimal cover).
2.03 Surface water drainage slates to comply with recommendations of BRE 365, all drainage to be taken to soakaways a minimum 8000mm from any buildings, details of soakaway depth etc to be agreed with Building Control.
2.04 All building drainage to comply with Part H1 and H3 of the 1990 Approved Documents and BS 8001:1985.
2.05 All drainage to be set at falls to comply with Approved Documents Part H1 - Table 8 for four drains & Approved Documents Part H3 - Diagram 1 for surface water drains.
3.00 MANHOLE / INSPECTION CHAMBERS
3.01 Access chambers are to be in accordance with relevant Regulations and manufacturer's recommendations and of a type suitable for the depth required, as indicated upon the structural engineer's details.
4.00 PROTECTION OF DRAINS
4.01 Where drains are in garden areas and have less than 0.6m cover they should have concrete paving slabs laid over the bedding with at least 75mm of granular fill above the pipe and a minimum of 100mm granular fill below the pipe. (See diagram A4 of Part H1 of the 1990 Approved Documents).
4.02 All drains & sewers passing underneath building to be encased in 150mm of pea shingle.
5.00 SUBSTRUCTURE CAVITY WALLS
5.01 Sub structure cavity walls to be built up from top of foundation concrete up to levels as noted below for external wall and floor slab level for internal wall. In 100 or 140mm blockwork to BS 6073: Part 1: 1981 Class A & to be 7.0m block strength up to dpc level laid in 1.3 mix cement/sand mortar.
5.02 Cavity to be filled with lean mix concrete (1:1:12 mix) to BS 5328 to minimum 225mm below lowest dpc level and sloped toward outer skin.
5.03 External skin to be topped with facing brickwork from 2 courses below ground level up to DPC level. Refer to architect's detail drawings for DPC level. Set first brick course to be to have open parapets at 875mm centres.
6.00 DAMP PROOF COURSE & LANSERS
6.01 Horizontal DPCs to be placed 150mm minimum above finished ground level and to be to BS 5515 (Paved or similar). To be 25mm wider than the wall they are bedded on with proprietary washers provided over openings of max 450mm c/c. Provide vertical DPC's as noted in 6.04.
6.02 All DPC's are to be fully lapped.
6.03 All DPC's to be fully interlocking with DPM's.
6.04 All lead flashings as required to be in strict accordance with recommendations set out in the Lead Sheet Association's Handbook.
7.00 FLOORS
7.01 GROUND FLOOR CONSTRUCTION
Four covering as specified on 60mm min sand cement screed upon a 500 gauge moisture control layer upon a layer of 100mm thick Celotex G4000 rigid insulation laid upon 1200 gauge dpm, upon a finished gravelled stony or 225mm beam and block floor, upon a 100mm concrete slab to BS 6073: Part 1: 1981 Class A & to be 7.0m block strength up to dpc level laid in 1.3 mix cement/sand mortar. The floor is to achieve a U-value of 0.15W/m2K.
Ventilate sub-floor void with gravel cavity tray lid type for telescopic cranked ventilators to provide cross ventilation equivalent to 1500mm2 per metre run of wall.
7.02 Upper floor floor covering on 22mm 18g chipboard on 300mm joists/plates or similar as specified at similar frame manufacturer of maximum 400mm centres, 100mm mineral wool between (min. density 10kg/m3) to be incorporated between the joists with the ceiling to be constructed from 12.5mm plasterboard upon vapour barrier floor finish.
8.00 EXTERNAL WALLS
8.01 External skin of 100mm thick Porotherm Light Multi Stack brickwork, refer to elevations for location of contrasting feature facing brickwork zones, 50mm cavity, with internal skin of brother membrane on 8mm ash sheathing on 140x38mm vertical studs at 800mm c/c. Incorporate 125mm of Celotex FR5000 insulation between studs with a internal layer of 12.5mm plasterboard upon vapour barrier floor finish.
Walls are to achieve a U-value = 0.20W/m2K or better.
8.02 Rendered external wall to be 15mm Sinterlight cream on 100mm Celotex standard blockwork, a 50mm cavity and a brother membrane upon 8mm OSB to cavity, fixed back to 140mm c/c studs at 400mm centres, at voids between studs to be filled with 120mm of Celotex FR5000 insulation positioned between studs and a internal face of 12.5mm plasterboard positioned upon a vapour barrier, all joints are to be taped and filled. Average U value for external wall not to exceed 0.20W/m2K.
8.03 Eternit weatherboarding (C3 grey brown) fixed with a 30mm lip onto 50x38mm treated vertical battens at maximum 1200mm centres fixed back to 50x50 treated s.e counter battens at 1200mm centres through a brother membrane onto 8mm OSB sheathing on 140x38mm vertical studs at 800mm c/c, with 120mm of Celotex FR5000 insulation between studs with a internal layer of 12.5mm plasterboard upon vapour barrier, fixed back to studs.
Walls are to achieve a U-value = 0.20W/m2K or better.
8.04 Incorporate stainless steel or similar Agrament certified timber frame ties. Then 750mm max apart horizontally/450mm vertically staggered within 100mm cavities.
The window & door frames to jamba/heads with stainless steel frame ties at 450mm centres built into jamba & sheathed to timbers, or as otherwise instructed by manufacturers.
9.00 INTERNAL WALLS
9.01 Internal timber stud partition to be of 12.5mm plasterboard to both sides of 50x40 treated s.e studs at 400mm vertical centres, incorporate 50mm of Rockwool R500 insulation between studs, all plasterboard joints are to be taped and filled.
9.02 Internal timber stud partition of 12.5mm plasterboard to both sides of 50x40 treated s.e studs at 400mm vertical centres, incorporate an additional layer of 12mm plywood fixed onto face of partition, with an additional layer of 12mm plywood fixed onto face of plasterboard, to provide insulated internal face within gorse.
10.00 STAIRS AND GUARDING
10.01 STAIRCASES GENERALLY
Staircase construction with secure treads and nosings, pitch of staircases, rise and going for the stairs to be in accordance with Part K. Min clear width between handrail and wall to be a minimum of 900mm.
10.02 Staircases to have 14 equal risers at 192.2mm and minimum goings of 230mm, pitch of staircases 42 degrees. Total rise of 2850mm.
10.03 Stair min. headroom measured vertically above pitchline to be 2m.
10.04 Continuous handrail is to be provided securely fixed at a height of 900mm measured vertically above pitch line and terminating at a newel post at the top and bottom of the stair unless fixed to wall. Stair balustrading to have no opening that would permit the passage of a 100mm dia. sphere.
10.05 The balustrade guarding at the landing level is to be set at a height of 1100mm above FFL and to be capable of resisting the appropriate horizontal load of 0.39kN/m.
11.00 WINDOWS, DOORS & ROOFLIGHTS
11.01 PVCU windows and doors to be hermetically sealed, argon gas filled double glazed units with 200mm sealed units, 4-12-4mm glass to achieve a U-value = 1.40W/m2K (using soft coating value of 0.15) all by approved manufacturer to BS 7412. See below for toughening/tempering requirements.
11.02 Window units to be fitted in accordance with manufacturer's recommendations using stainless steel fixing cleats. Windows to be set back 75mm from external face.
11.03 Perimeter of doors and windows to be sealed externally with a fill of acoustic pointing to heads and jamba - colour to match window / door frame.
11.04 All opening lights to be fitted with security locking furniture to facilitate securing in a partially open or totally closed position, except designated escape windows.
11.05 Proprietary cavity closers (thermostats or similar) incorporating DPCs to be used around all window and door openings in accordance with manufacturer's details.
12.00 GLAZING
12.01 Toughened glass to be used in door & side panels within 300mm to 1500mm of FFL & in window areas below 800mm from FFL. All to BS 8282 and K16 marked. Obscure glass where indicated on drawings. (See also 11.01)
13.00 VENTILATION
13.01 Incorporate Trivent A201 trickle vent or similar approved to provide a total ventilation rate of 65000mm3 per hour.
13.02 For rapid ventilation purposes all windows and doors to be provided with ventilation openings equal to not less than 1/20th of the floor area of the room; part of the ventilation opening to be a minimum 1750mm above floor level. All windows are to be draught striped.
13.03 Provide intermittent Extractor Fans to all kitchens, bathrooms, utility rooms and WCs in accordance with Part F of the Building Regulations. Provide the following extraction rates: Kitchens 800/h, bathrooms and all utility rooms, and utility rooms at 15/h and WCs at 6/h.
14.00 MOVEMENT / EXPANSIONS
14.01 Provide movement / expansion joints in accordance with BRE digest No. 157:1972 & 178:1975.
14.02 The vertical joint is to be pointed with a two part polysulphide sealant of a colour compatible with colour of facing brickwork. See also to be installed either side of joints at 225mm vertical centres (see Section 8.02).
15.00 ROOF CONSTRUCTION
15.01 PITCHED ROOF
Similar Bedford Stonefield 1 Slate Grey roof tiles to be laid to provide a 100mm lap on 50x38 treated s.e battens on trusses, incorporate Tyvek or similar breathable membrane below battens draped over trusses, rafters, with 100mm of Celotex G4100 PIR roof insulation between the trusses at ceiling level where indicated on plans with a layer of 50mm Celotex T83000 insulation, which is to incorporate a layer of 12.5mm full backed plasterboard fixed to the underside of roof to provide a min. U-Value of 0.18W/m2K.
Roof framing generally comprising as pressure impregnated with preservative to BS 5288: Part 5 1987. Wind bracing to be provided in accordance with BS 5288:Part 3 1985.
15.02 Dormer roof construction to be code 5 lead wearing laid with gable end walls, and to incorporate lead rail joint at eaves line of dormer to drain down over adjacent pitched roof areas. Lead sheet to be laid upon a sealing layer of 22mm extruded quality pressed backing laid on timber framed dormer window construction.
15.03 Where roof insulation to be incorporated at ceiling level, to be a layer of 150mm Crown rail insulation with an additional layer of 150mm insulation over, insulation quilt to have a thermal conductivity of 0.04W/m2K provide U-value of 0.13W/m2K or better.
15.04 Wall Plates: Refers to be twice noted to wall plate. Wall plate strapped to timber frame wall panel as confirmed by the structural engineer.
15.05 Fascias, Soffits and Gutters: Fascia units to be upon with black UPVC gutters.
15.06 Pipe Penetrations: Provide mastic seal to all penetrations of piping etc into roof space.
15.07 Loft Access Hatches: Form opening and provide proprietary draft striped sealed insulated lockable lift access hatchback where shown, not less than 550x750mm into roof space. A high level light switch with neon indicator adjacent to hatch and light fitting in loft is to be provided.
16.00 LATERAL RESTRAINT OF ROOF
16.01 Provide lateral restraint to roof in accordance with specialist manufacturers details. As a minimum, anchor rafters and wall plate to wall by 30mm x 5mm straps at maximum 2m centres.
16.02 Provide strap adjacent to ridge level.
16.03 Straps should be taken over at least 3 n.s. rafters and fixed to inner leaf in accordance with manufacturers recommendations.
16.04 Provide nogging under straps as noted above.
17.00 THERMAL INSULATION
17.01 U-values specified for individual elements to be achieved as a minimum. Information & calculations for Part L to be provided by specialist.
18.00 RAINWATER GOODS
18.01 External gutters and downpipes are to be black UPVC. See drawings for fascia / gutter profiles, downpipes to be round.
19.00 INTERNAL PLUMBING
19.01 22mm trapped waste to basins. 40mm trapped wastes to baths, sinks and washing machines.
19.02 75mm deep seal traps to wastes on soil and vent pipes (50mm to WC pan).
19.03 Provide anti-siphon traps where distance to soil and vent pipe is over 1.7m.
19.04 Branch waste sizes as follows:
i) WC - min 100dia, with max. 6m run with 8mm/m fall
ii) Bathrooms - min 32dia, with max. 1.7m run. Min 45mm dia, with max. 3m run.
Fall of branch wastes for washbasins to be as indicated in diagram 3b of the approved Documents Part H1 1990 edition. Where 40mm branch pipe is used the fall of the trap should be lengthened by 50mm before increasing the size.
iii) Sinks - min. 40dia with max. 3m run. Min. 50dia for 4m run. Fall of branch wastes for sinks to be between 18-30mm / m.
iv) Washing Machine - as notes for sink above.
19.05 Main branch wastes if used should be 45mm dia, with minimum gradient of 18mm/m, and max. gradient of 45mm / m.
19.06 Opposing wastes into soil and vent pipe to be 450mm above the drain invert.
19.07 Opposing wastes into soil and vent pipe (w.c wastes opposite wastes up to 85mm in diameter), 200mm offset achieved by angled junction.
19.08 Lowest connection to soil and vent pipe to be 450mm above the drain invert.
19.09 Branch pipes discharging into gullies should terminate below the grating or sealing plate and the top of the waste seal.
19.10 Bends in branch pipes should have large radius pipes of 85mm or less and should have centre line radii of min 75mm.
19.11 Junction of branch pipes should have a sweep of 25mm or a radius of 40mm.
19.12 Connection of w.c branch pipe to soil and vent pipes to have sweeps of min 50mm or a radius of 450mm.
19.13 Provide roading access to all lengths of discharge pipes / wastes which cannot be reached by removal of traps.
19.14 Provide 100mm diameter soil and vent pipes taken up through roof space to proprietary ridge terminal, unless otherwise detailed, all to finish not less than 500mm above nearest opening into the building. The terminal outlet used should not restrict the flow of air.
19.15 Provide roading access to all lengths of pipe that cannot be reached from another part of the building.
19.16 All pipes should be easily accessible for repair.
19.17 All internal plumbing to comply with BS 5572:1978.
19.18 Dargo valves where used, to be fitted at a level above the flood plane of the highest appliance.
19.19 Soil and vent pipes are to be encased in ducts constructed in 38 x 50mm as framing and fixed with 1 layer of 12.5mm plasterboard, and to incorporate 50mm mineral wool or glass fibre insulation within the boxing, with access panels formed where necessary, fixed with brass pins and screws.
20.00 HEATING AND HOT WATER
20.01 All hot water within dwellings to be via gas fired condensing combination boilers & radiators. Size and requirements as recommended by appliance manufacturers.
20.02 Gas boiler to be a condensing type and is to have a min. SEDBUK rating of 91K, with automatic ignition and interlock.
20.03 Gas central heating and hot water supply, heating provided by low pressure, open vented, hot water system and radiators, thermostatically controlled and cylinder thermostat. To comply with BS 5449 Part 1, gas board and CORG requirements and to provide a room temperature of 22°C when the external temp. is -1°C.
For more detailed boiler specification see used for target U-value calculation in specialist's calculations and information.
20.04 System installer should be CIB or Institute of Plumbing or a designated registered operative on list of British Board of Agreement upto 31st December 1991 or equivalent.
20.05 Electrical non self-resetting thermal cut-out valve should be connected to the direct heat source or indirect primary flow control device in accordance with ICE current regulations.
20.06 Hot and cold water circulating pipes to be copper installed with all necessary fixtures and fittings.
20.07 Insulation of hot water pipes and ducts: Insulation of pipes (in unheated spaces) should have a thermal conductivity of max. 0.04W/m2 and thickness equal to the outside diameter of the pipe (up to 40mm) or to BS 5423:1977.
20.08 Gas service to be provided with wrapped or aluminium painted steel pipes laid within polythene (pocket with sand) over ground floor slabs, gas points provided to serve cooker (to terminate 800mm above FFL) and central heating boiler in kitchen - the whole installation to comply with British Gas Corporation requirements.
20.09 Combustion air for the cooker is to be provided by an operable window.
20.10 The stored hot water temperature is to be maintained below 100 degrees C, via the introduction of two independent pressure release valves, in addition to safety thermostat.
20.11 Hot water to bath to be restricted to a maximum temperature of 49 degrees C, via the use of air in the bleeding valves preventing hot water being delivered to the appliance in excess of the above temperature in accordance with BS 6111:1999.
21.00 FIRE SAFETY
21.01 Smoke alarms to be mains operated with battery backup, conforming to BS 5446 Part 1 and the relevant recommendations of BS 5839 Part 1 to at least an L3 standard. No further than 7m from living room / kitchen and 3m from bedrooms. To be at least 300mm from any wall or light fitting and not over exposed. Provide at least one number per unit. Where more than one per unit, they should be interlinked within that unit.
22.00 ELECTRICAL SERVICES
22.01 The electrical installation is to be designed and installed by a specialist sub contractor who is registered with the NICEIC or ECA, installation certificate to be issued by a competent person in accordance with BS 7671.
22.02 The whole of the electrical installation shall be designed, installed and tested in accordance with the latest edition of the IEE Regulations and the requirements of the Local Electricity Supplier.
22.03 Electrical sockets and light switches are to be installed within a zone of 450mm and 1200mm from the RL.
23.00 LIGHTING
23.01 All, or all light fittings are to be low energy light fittings, in accordance with approved document L1 1.58 table 4.
24.00 CHIMNEY CONSTRUCTION
24.01 Chimney within the living room to be constructed from durable triple glazed gas flue panel system comprising mini clearance gas flue blocks and durable special thermal/dense flanking blocks for installation into the inner leaf of external/party walls of timber framed houses.
durable gas flue blocks comply with BS298: part 1, and provide a free area of 18800 square millimetres, how on aspect ratio of 12:05.
24.02 Flue blocks are to be installed in accordance with the manufacturers instructions, all related joints to be sealed with a 8mm min flameable high modulus polymer sealant supplied by durable and applied in accordance with their strict instructions.
24.03 durable gas flue blocks are compatible with gas fires to BS871:part 1 and certain compact heat fuel effect gas appliances to BS871: part 2 may be installed dependent on manufacturers fitting instructions.
24.04 provide permanent ventilation within the floor construction adjacent the fire hearth to provide a minimum of 50% of the cross sectional area of the flue.
25.00 WINDSCREEN WATER SUPPLY
25.01 The water supply for the development is to be taken from an existing mains water supply situated within the adjacent footpath/highway, and will provide a wholesome water supply in accordance with Approved Document.



Section A-A scale 1:50
Section B-B scale 1:50

revision	notes	date	drawn	check	revision	notes	date	drawn	check	revision	notes	date	drawn	check	client
															Boundstone
															Notes
															this drawing is the copyright of the Holman Reading Partnership LLP and must not be reproduced in whole or part or used for the execution of works without their permission. all dimensions to be checked on site prior to commencement of construction works and the architect notified of any discrepancy. figured dimensions are to be used in preference to scaled dimensions. no deviation from this drawing will be permitted without prior consent of the architect. all drawings are prepared subject to a full measured and structural survey of the buildings and site. all structural work is subject to the appointment of a structural engineer to confirm and agree the structural proposals. as promap licence no. 100020449.
															scale width 100mm @ a1 - 60mm @ a3
															project Proposed 3 no. dwellings Land adjacent Crows Nest PH Waterloooville drawn mmh date Jan 13 as shown checked status Const 8307 -15
															holman reading partnership llp 18 Limberline Spur hilsae, portsmouth, hampshire, po3 5hj tel: 023 9289 1843 fax: 023 9283 9722 email: info@hrp-architects.com website: hrp-architects.com

