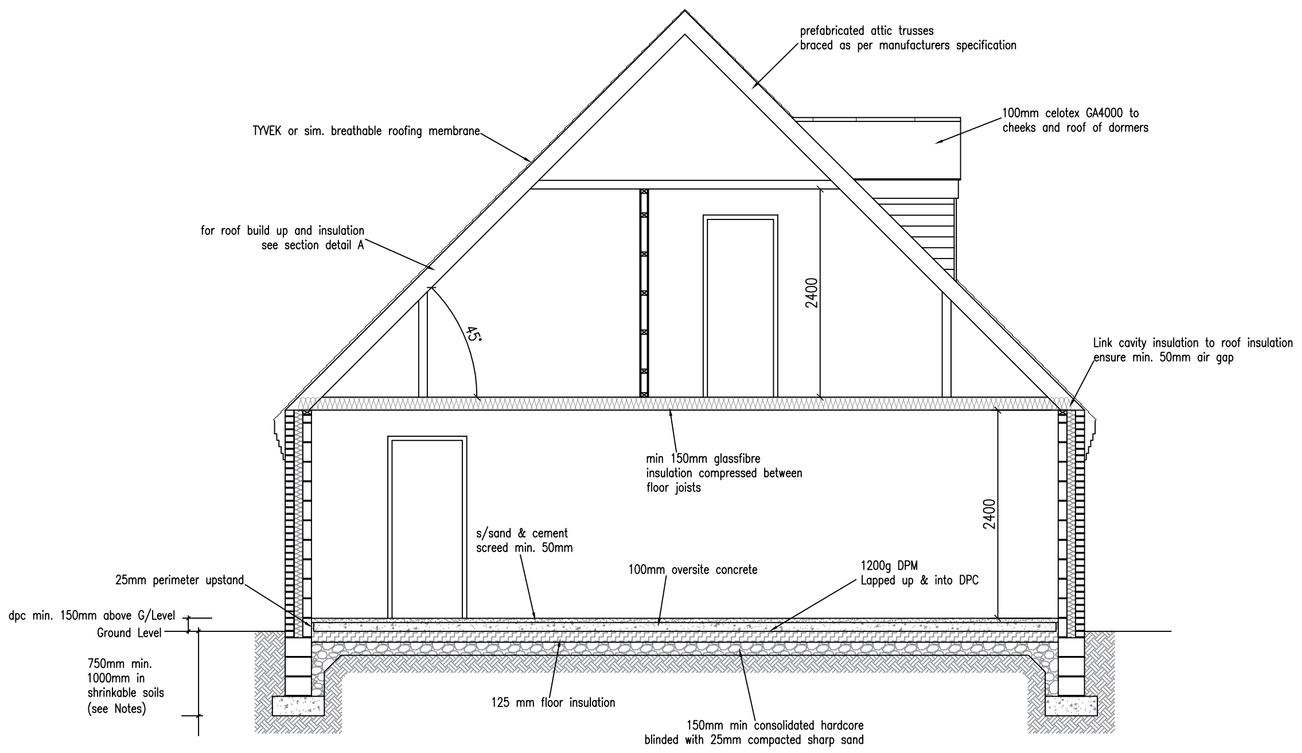

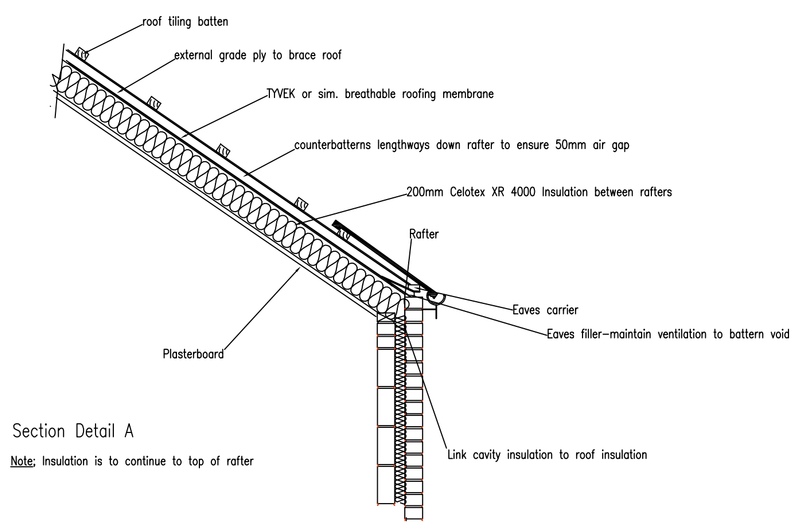

Section Detail A

Note: Insulation is to continue to top of rafter

INTERNAL LINTELS
All internal lintels to be either;
Catnic, Birtley or I.G. messrs galv. steel or,
pre-stressed conc.
with min. bearing 150mm both ends. installed to manufacturers instructions.

ROOF CONSTRUCTION
Concrete interlocking tiles i.e Sandtoft, Lafarge or sim. approved to suit roof pitches shown on drawing, min headlap 75mm installed to manufacturers instructions, All roofing tiles & accessories to be installed to B.S.5534: part1:1997, code of practise for slating & tiling, All valleys to be pre-formed GRP or sim. approved installed to manufacturers instructions, with all tiles to valleys cut straight to valley and bedded at verges. Provide asbestos undercloaking nailed to rafter, & weather pointed tile over.
All lead work to be code 4 lead stepped flashings/soakers pointed into mortar joints of walls, mortar joints to be min. 150mm up wall with cavity protected by cavity trays over flashing/soakers.
Softwood treated tiling battens to annex E of B.S.5534 part1 1997 (check with tile manufacturers spec for battern size prior to ordering)

ROOF VENTILATION
TO BE WARM DECK TYPE ROOF, to be provided by installing breather membrane, TYVEK or sim. over rafters allowing the membrane to sag slightly STICTLY IN ACCORDANCE WITH MEMBRANE MANUFACTURERS INSTRUCTIONS between rafters leaving the entire rafter depth to be filled with insulation. Cut Celotex tuff-R Zero GA3000Z, (2 layers of GA3075Z 75mm per layer, total 150mm thickness are required) at a slight angle, making the board width slightly oversize on one surface, to achieve a "friction fit". Push boards into the void between the rafters until they are tight up to the underside of the breathable membrane (see detail b-b) ensuring all joints are closely butted. The second layer should be installed the same way, ensuring lateral joints are staggered. Butt insulation tightly to wall plate, and ridge. Vapour check plasterboard should be installed to the underside of the rafters finished with skimmed plaster.
All above to comply with Approved Document F & B.S.5250:1989.

ROOF STRUCTURE
to be open plan attic tpye trussed rafters to take above mentioned tiles to B.S.5268 part 3 1985, manufacturers (Palgrave Brown, Boston or sim. approved) truss calc's to be submitted to L.A. Building Control min. 28 days prior to installation.
Trusses to be @ min. 400mm ctrs. fixed to wallplate with truss clips & any other fixing's instructed by manufacturer, see manufacturers details regarding internal water tank & additional support members.
Stability bracing (wind bracing) to be min. 22mm x 100mm free of defects fixed with galvernised 65mm x 3.5mm nails (2No per fixing)
50mm x 100mm Wall plate to be bedded (min. 10mm mortar bed joint) on internal skin of cavity wall, strapped @ max.2m ctrs. galv. 30mm x 5mm x 1m metal anchor straps screwed to blockwork & nailed/screwed to wall plate.
At gable end install 30mm x 5mm x 1m galv. straps @ max 2m ctrs. over min. 3 No trusses with solid noggins between, built into inner skin of cavity wall
All roof work to be in accordance with Approved Document A, B.S.5534, B.S.5290 & Approved Document F.

SURFACE WATER DRAINAGE
Installed to Approved Document H gutters & RWP. to be Marley or sim. approved to match existing, to be min. 68mm dia. or sq. as required. Rain water pipes to connect into reducer connected to 100mm dia. UPVC underground pipework with flexible joints to min. 1:80 gradient. Trench to be as narrow as practicable, bedded onmin. 100mm layer of peagravel (10mm down), which has a compaction factor less than 0.3. Backfill with same material to min. crown of pipe, all compaction should be done by hand until a coverage of min. 300mm has been achieved, therafter compaction can be done with a mechanical compactor.
All surface water to be taken to soakaway min. 5m from nearest habitable part of building, construction of soakaway to be min. 1M3 loose brick filled to 300mm of ground level, with polythene cover & topsoil over.
Soakaway is subject to appropriate percolation test being undertaken in order to ensure permeability of soil. Percolation test should be done stictly in accordance with Approved Document H2, para.1.34 to 1.38
Surface water outlets shall be designed to BRE Digest 365 Sookaway Design or CIRIA report 156

BELOW GROUND DRAINAGE

FOUL WATER DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH APPROVED DOCUMENT H1 OF THE BUILDING REGULATIONS 2002. & BS 4660 (2000). Installation to BS 5955 Part6 1980.

New droins to be 110mm min. PVCU Marley solid wall under ground pipe, with flexible joints Refer to drawing for layout details.
All F.W. lines to have a self cleansing gradient, min. 1 in 40 to branch drains, 1 in 80 to main drains. (if required) All junctions to have slow bends .
Trench to be as narrow as practical, bed to be prepared with min. 100mm deep layer of pea gravel, gravel to be 10mm down with a compaction factor of less than 0.3.
Backfill around pipe & carefully compact up to a min. height level with the crown of the pipe. Backfilling should be done by hand until a cover of 300mm has been made.
where F.W. line runs under the external wall, pre-stressed concrete lintels to be installed over, ensuring min. gap around pipeof 50mm filled with compressible material, & masked on both sides with ridgid material in order to prevent the intrusion of rodents. PROPOSED PIPE UNDER THE FLOOR SHOULD BE OF CONTINUOUS LENGTH, THUS NO JOINTS UNDER FLOOR. Provide new Inspection Chamber/s as shown to BS 7158, 2001. min. sizes : if depth 600mm or less internal diameter min. 190mm, if between 600mm & 1.2m internal dia. 450mm.

ABOVE GROUND DRAINAGE
Where applicable wastes should generally be the following sizes;
Sink 40mm
Wash Hand Basin 32mm
Shower 50mm shower should also be raised on a 150mm plinth with an access point to the trap
All traps should be 75mm deep seal, any runs of pipework that exceeds 1.7m should use anti-syphon re-sealing traps or air relief valves. Rodding points must be provided at all changes of direction.
Wastes should be connected to S.V.P. in accordance with B.S.5572. Soil & vent pipes to be min. 110mm PVC with cleaning access above ground floor level. S.V.P. should be positioned on the outside of the building terminating min. 900mm above any window head within 3m capped with a PVC balloon sim. OR discharge through the roof space taken to ridge terminal vent,
If an air admittance valve is indicated on the drawing it must be Marley 'Durgo' or sim. approved, fitted above the flood level of the highest appliance connected to it. also, it must be installed within the building where ther is no risk of freezing & be accessible for inspection/testing installed to manufacturers instructions.
NOTE: Stacks should not be fitted with air admittance valves alone when the connecting drain is subject to surcharging or is fitted with an intercepting trap or discharging to a septic tank or cesspool, for this type of application there must be a separate stack venting to the external air.

HEATING
BOILER
Oil fired hot water system controls to switch boiler off when no heat is required.
SEDBUK Rating to be to domestic heating compliance guide.
Details of boiler & appropriate commisioning certificate to be provided to L.A. Building Control.

RADIATORS & CONTROLS
Position of new radiators to be confirmed by client, each is to have T.R.V. &/also room thermostats.
Time Control to be provided to control the operating period of the system
Pipework located outside the building insulation should be wrapped in insulating material having a thermal conductivity @ 40°C, not exceeding 0.035W/n.K & thickness equal to the outside dia. of the pipe to a max. 40mm.

ELECTRICS
Any new sockets/outlets/lighting points & switches to be in accordance with Part M 2004 of the Building Regulations.
quantities & positions to be agreed with client prior to commencement of work.
All electrical work to comply with Part P of the Regulations, & BS 7671: 2001.
Prior to any new electrical works being carried out, the EXISTING electrical system must be checked for adequacy to support the proposed, if to be found inappropriate/unsafe or sub standard, this must be rectified prior to any additions.
All electrical work must be design/installed & certified by a competent person, who is registered with an electrical self-certification scheme that has been authorised by the Secretary of State, this person is responsible for ensuring compliance with BS 7671: 2001. & all relevent Building Regulations. This same person should notify Local Authority Building Control PRIOR to covering up any new cables (1st fix stage) in order to recieve the appropriate inspection, on completion of the electrical work the registered competent person must provide self-certification certificate to the client & a notice to that effect (or a copy of the certificate) to Local Authority Building Control, not more than 30 days after completion of that work.

INTERNAL LIGHTING (new builds & extensions)
All internal lighting should be installed in accordance to Domestic Building Compliance guide, 75% of all new light fittings to be energy efficient lighting

EXTERNAL LIGHTING (new builds & extensions)
All external lighting to automatically switch off when there is sufficient daylight, & when not required at night, OR, the lamp capacity must not exceed 150 watts per light fitting
Applies to porches but not garages/corports.

GLAZING TO EXTERNAL WINDOWS/DOORS
U value required for whole of window/door, i.e. frame (wood or P.V.C.) & glass of 1.6 W/m2K with a 16mm air gap. To comply with & installed under the Approved Document L1 of the Building Regulations 2010
All new windows to provide Background Ventilation of at least 8000mm²

GLAZING TO CRITICAL LOCATIONS
Glazing between finished floor level and 800mm above that level, in internal & external walls, and portions,
between finished floor levels and 1500mm above that level in a door or in a side panel close to either side of the door, should be saftey glazing to BS 6206: 1981

PURGE VENTILATION
- for a hinged or pivot window, that opens 30° or more the height & width should be at least 1/20th of the floor area of the room
- for a hinged or pivot window that opens less than 30°, the height & width should be at least 1/10th of the floor area of the room

Background Ventilation for Habitable Rooms (room used for dwelling purposes but not solely a kitchen):
Rapid ventilation: 1/20th of floor area
Background ventilation: 8000mm2 per room

OPEN FIREPLACE
(To be installed in accordance with the Approved Docuent Part J 2002 edition of the Building Regulations/The Guide to Designing Solid Fuel into Homes/Period Fireplaces by the Solid Fuel Association/Red Bank Total Chimney Solutions) and capable of burning smokeless fuel Hearth constructed of none combustible matl. min. 125mm thk. Projecting at least 500mm in front of the chimney breast jambs and extending at least 150mm each side of the fire opening.
Throat and fireplace components where applicable.
Throat forming lintel to BS 1251:1987
Precast reinforced conc. raft lintel supporting flue liner (open fireplace only)
Fire back to BS.1251:1987 c/w corrugated cardboard position immediately behind the lower back section of the fireback to serve as expansion joint, insulating/weak mortar support infill behind.
Some form of fire resistant (ceramic) rope which will allow for forward expansion to seal the fire back with front fireplace surround.

Permanent ventilation
Provide permanent louvered air vents within the external walls (not to be fitted with closeable vents) to give a total free area of ventilation of at least 50% of the cross sectional area of the flue. i.e. nominal 450mm wide finished fire opening 18500mm2 permanently open free air space provided by 2 no. REDBANK 215mm x 215mm rectangular hole air bwks. Each providing 10250mm2 free air space c/w 2 no. 215mm x 215mm cavity wall bridging ducts. Vents to be situated in a neutral position in relation to the normally prevailing wind direction and not to cause discomfort from cold draughts. Ventilation can be from another room/conservatory/hall as long as this room is vented from outside. Vents to be no higher than 450mm above ffl.

Chimney Stack
Ht. of chimney stack inc. chimney terminal not to exceed 4.5 times its min. horizontal width with flue outlet position terminating through the roof structure as shown in diagram 2.1 of the Approved Document Part J of the Building Regulations. The chimney to be constructed in 102mm facing brick surround to the flue and terminate in corballed out brickwork (engineering bwk) and clay pot (hooded on straight flue) any gap between the liner and masonry to be filled with weak insulating concrete or masonry as work proceeds, provide code 4 lead flashing and 2 no. courses of engineering bricks at roof/flue intersection. Trim all roof/joist timber around flue so no timber is within 40mm of the flue. Typ. flue size suitable for fire place openings up to 1) 450mm w x 550mm h is 210mm dia. 2) 500mm h. is 225mm internal dia. Flue size is calculated by the cross sectional area of the flue which should be 15% of the cross-sectional area of the finished fireplace opening size (see appendix B) flues with more than 15% total face area or more than 120,000mm require specialist advice) flue liners or other approved liner to BS.1181:1971 (size of flue determined by the relationship of the area of the fireplace opening and the cross sectional area of the flue, this detail to be confirmed with the client by the Building/Connector prior to commencement of work) with rebated and socketed joints to prevent condensate running out, laid with sockets uppermost and cement jointed with fire resistant mortar, Red Bank recommend an insulating backfill which consists of expanded clay granules which should be mixed at 20 parts granules 1 part ordinary Portland cement, lightly wetted, with cement acting purely as a binding agent. Thickness of insulating backfill to be min. 25mm and preferably 35 to 40 between flue liner and surrounding masonry. As a general rule the min. effective ht. of a chimney should be not less than 4.5m measured vert. from the highest point at which air can enter the fireplace to the exit point and the terminal.

Notice Plate
Provide robust/indelibly mkd. and securely fixed notice plate within the building for hearth/flue information next to either the electrical consumer unit/chimney or hearth/water supply stop cock.

SMOKE DETECTORS

Provide mains operated self contained smoke alarms to BS.5446pt. to be installed in circulation areas within 7m of doors to high fire risk rooms and within 3m of bedroom doors. Where more than one alarm is installed they should be interconnected so that detection of smoke by any unit activates the alarm in others. At least one smoke alarm to be installed in each storey containing accommodation, all to be interconnected. Self contained alarms to be permanently wired to a separate fused circuit at the distribution board. Installation to conform to IEE wiring regulations. Positioning of smoke alarms should be not less than 300mm from any wall or light fitting, where wall mounted units are installed they are to be a height between 150mm and 300mm below the ceiling. Positioning of smoke alarms must facilitate routine maintenance occupants of the dwelling are to be provided with information on the use of the equipment and its maintenance.

INTERNAL DOORS & CORRIDOR WIDTHS
All internal doors to be 850mm W. unless otherwise on plan. Corridor width to be min. 900mm, unless otherwise on drawing

LEVEL ENTRY THRESHOLD
Front door access (principle entrance) into the dwelling to have a threshold no higher than 15mm. If level entry approach required to the front entrance it is to have cross falls no greater than 1 in 40 (steeper than 1 in 20, firm surface, width not less than 900mm). If gradient exceeds 1 in 20 but not exceeding 1 in 15 a ramped approach may be provided (firm and even surface, width not less than 900mm top and btm. Landings whose lengths are not less than 1200mm, has individual flights not longer than 10m for gradients not steeper than 1 in 15, or 5m for gradients not steeper than 1 in 12.
Stepped approach to front door: to have uniform rise of each step between 75mm and 150mm with going of each step not less than 280mm which for tapered treads to be measured at a point 270mm from the inside of the tread, and where the flight comprises three or more risers a suitable continuous handrail on one side of the flight (suitable handrail to have gripable profile, be between 850mm and 1000mm above pitch line of the flight and extent 300mm beyond top and bottom nosings).

STAIRCASE

(max. pitch 42 degree site check dimn.s and style of staircase required with client prior to ordering

Bolton and Paul stock flight code: STSTA timber staircase or similar width = 855, rise ffl to ffl = 2600, going = 2676 (o/a length of stair = 2708) going = 223, rise = 200.
Clear headroom to be 2m measured vertically above pitch line. All treads to be level, if open risers, no gap to be greater than 100mm, handrail to be provided one side at between 900mm and 1000mm to top of handrail measured vertically above pitch line with no gap within guarding greater than 100mm. Handrails to landing to be min. 900mm high with balustrade to have no openings greater than 100mm and securely fitted to landing and capable of resisting at least the horizontal force given in BS6399: Part 1: 1996.

Ref:	Revision:	Date:

AUSTIN JOHN
DEVELOPMENTS

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Project:
PROPOSED REPLACMENT BUNGALOW AT; TOWER BUNGALOW, LITTLE SUTTON, LINCS, PE12 9EG

Client: MR L. ROBINSON

DRAWING:
SECTION A-A
SECTION DETAIL A

DRAWING N°:	DATE:
AJD/1018/15/02	OCTOBER 2015
DRAWN BY:	SCALE:
JC	1:25 1:50

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HEALTH & SAFETY
The client is to ensure that the appointed contractor is familiar with and complies with Health & Safety for Building Sites and Work Places.