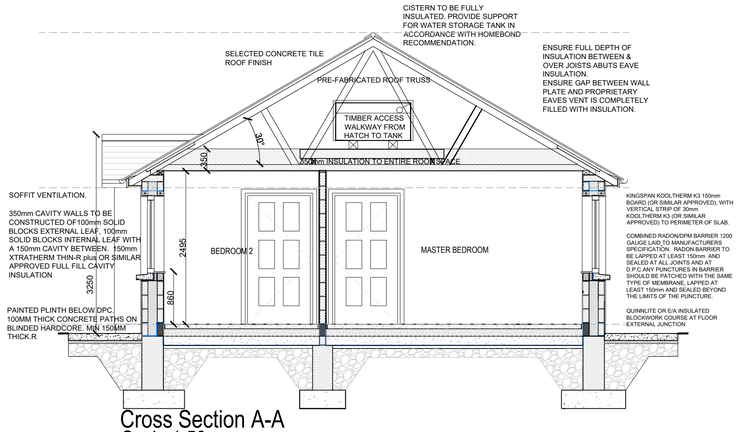
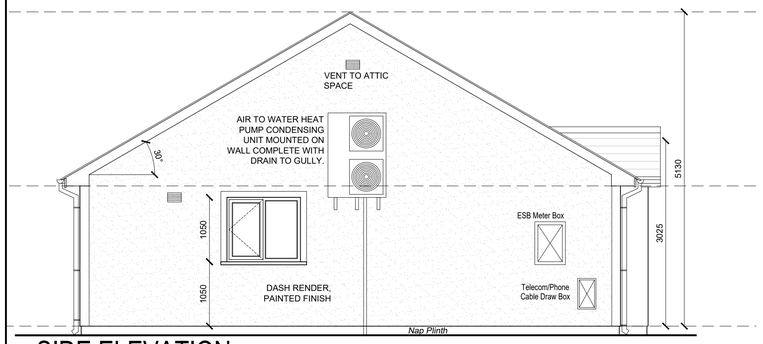
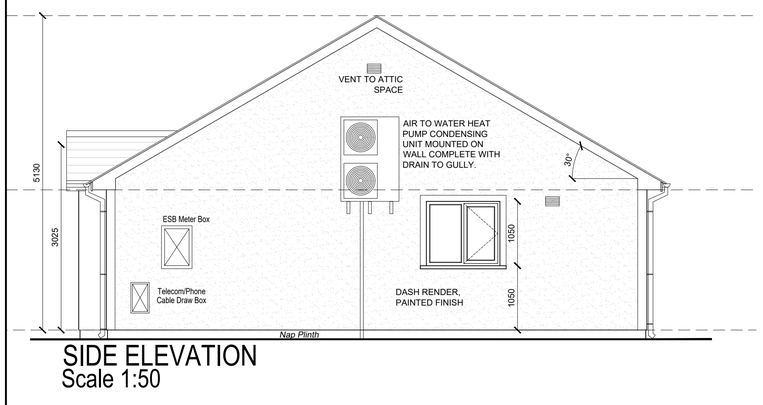



Cross Section A-A
Scale 1:50




SIDE ELEVATION
Scale 1:50




SIDE ELEVATION
Scale 1:50

## SPACE PROVISION CALCULATION.

DWELLING TYPE: 3 BED/4 PERSON SINGLE STOREY.

| TARGET GROSS FLOOR AREA (m2) | MINIMUM-MAIN LIVING ROOM (m2) | AGGREGATE LIVING AREA (m2) | AGGREGATE BEDROOM AREA (m2) | STORAGE (m2) |
|---|---|---|---|---|
| 82.0 | 13 | 34 | 32 | 5 |
| PROPOSED GROSS FLOOR AREA (m2) | PROPOSED MAIN LIVING ROOM (m2) | PROPOSED AGGREGATE LIVING AREA (m2) | PROPOSED AGGREGATE BEDROOM AREA (m2) | PROPOSED STORAGE (m2) |
| 89.65 | 17.8 | 33.8 | 32.8 | 5.35 |

# GENERAL SPECIFICATION

WHERE A PRODUCT NAME IS SPECIFIED, AN EQUIVALENT PRODUCT MAY BE SUPPLIED, BUT MUST BE APPROVED BY COUNCIL ENGINEER PRIOR TO ORDERING/FITTING.

**1. FOUNDATIONS**

RAFT FOUNDATION AS PER ENGINEERS DRAWING NO. TYPE-A_DR_300

**2. RISING WALLS**

- FOR RISING WALL CONSTRUCTION REFER TO STRUCTURAL ENGINEERS DRAWINGS AND SPECIFICATIONS FOR DETAILS.
- 50mm CLEARANCE TO SURROUND SERVICE PIPES. FOR LARGE OPENINGS A LINTEL (NOT METAL) SHOULD BE PROVIDED

**3. FLOORS**

- 75mm 30N10 THICK REINFORCED CONCRETE FLOOR SLAB WITH POLYPROPLENE FIBRES ANTI-CRACK REINFORCEMENT TO ENGINEERS SPEC AND DETAIL
- KINGSPAN KOOLTHERM K3 150mm BOARD (OR SIMILAR APPROVED), WITH VERTICAL STRIP OF 30mm KOOLTHERM K3 (OR SIMILAR APPROVED) TO PERIMETER OF SLAB.
- MIN U-VALUE OF FLOOR TO BE 0.15W/$m^2$k.
- COMBINED RADON/DPM BARRIER 1200 GAUGE LAID TO MANUFACTURERS SPECIFICATION. RADON BARRIER TO BE LAPPED AT LEAST 150mm AND SEALED AT ALL JOINTS AND AT D.P.C. ANY PUNCTURES IN BARRIER SHOULD BE PATCHED WITH THE SAME TYPE OF MEMBRANE, LAPPED AT LEAST 150mm AND SEALED BEYOND THE LIMITS OF THE PUNCTURE.
- 200mm REINFORCED RAFT AS PER ENGINEER'S DETAILS.
- 225MM COMPACTED CLAUSE 804 STONE COMPLIANT WITH S.R 21-2014 ANNEX E ON 400MM OF 75MM DIA CLEAN BROKEN STONE COMPLIANT WITH SR.21-2014 ANNEX E.
- THERMAL BLOCK TO BE FITTED TO PERIMETER OF THE SLAB, 2-3 COURSES DEPENDING ON GROUND LEVELS.
- • FIT CERAMIC PILKINGTON FLOOR TILES WITH A SLIP RESISTANT VALUE OF R11, TO THE BATHROOM FLOOR. INSTALL A 150MM HIGH SKIRTING TILE COMPLETE WITH TRIM TO TOP.USE FLEXIBLE ADHESIVE AND GROUT.

**4. WALLS**

- 350mm CAVITY WALLS TO BE CONSTRUCTED OF100mm SOLID BLOCKS EXTERNAL LEAF, 100mm SOLID BLOCKS INTERNAL LEAF WITH A 150mm CAVITY BETWEEN. CUT GRANITE STONE TO FRONT ELEVATION WITH STONE CILLS AND LINTELS OVER WINDOWS AND DOORS. Min U-VALUE OF WALL TO BE 0.15 W/$m^2$k.
- STEEL LINTELS TO STRUCTURAL ENGINEERS SPEC & DETAIL TO BE USED.
- 150mm XTRATHERM THIN-R plus CAVITY INSULATION (FULL FILL BOARD, THERMAL CONDUCTIVITY 0.021 W/m°C).
- AUSTENITIC STAINLESS STEEL VERTICAL TWIST DOVETAILED WALL TIES WITH CLIPS FOR INSULATION POSITIONED EVERY 750mm (MIN) HORIZONTALLY AND 450mm (MIN) VERTICALLY.
- ADDITIONAL TIES TO BE USED AT OPES AND JAMBS.
- CAVITY CLOSERS KINGSPAN THERMABATE OR EQUIVALENT
- CONCRETE CILLS ON PVC DPC TURNED UP AT BACK AND SIDES.
- NAP RENDER FINISH TO REAR ELEVATION, PAINTED. WINDOW REVEALS TO BE PAINTED DIFFERENT COLOUR TO THE WALLS

**5. ROOF**

- NEW CONCRETE ROOF TILE TO BE INSTALLED TO MANU SPEC AND DETAILS. MIN U-VALUE OF ROOF TO BE 0.12 W/$m^2$k.
- CONCRETE ROOF TILES ON 44mm X 35mm TREATED BATTENS ON TYVEC BREATHER MEMBRANE OEA ON
- NSAI APPROVED PREFABRICATED ROOF TRUSSES AT 400mm CENTRES ON 100X75 TREATED WALL PLATES.
- ALL ROOF TIMBERS TO BE PRESSURE TREATED INCL. FASCIA, SOFFIT, BARGE AND GABLE LADDER TIMBERS.
- INCLUDE FOR ALL NECESSARY PURLINS, HIPS, BEARERS, TILTING FILLETS, RIDGE BOARDS ETC.
- PROVIDE ADEQUATE BRACING TO ROOF.
- CONNECT ROOF TRUSS TO WALL PLATE USING PROPRIETARY TRUSS CLIPS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- EAVE VENTILATORS TO BE FITTED. ROOF VENT TILE TO BE FITTED AT RIDGE LEVEL AS PER MANUFACTURES SPEC & DETAILS
- BATT ROOF/WALL STRAPS AT 2M CENTRES WITH 4 NO. FIXINGS TO WALLS, 3 NO. FIXINGS TO TRUSS AND 2 NO. FIXINGS TO WALL PLATE.
- 350mm FIBREGLASS (OEA) INSULATION
- PATINATION OIL FINISH TO ALL CODE 5 LEAD, TO MANUFACTURES SPECIFICATION AND DETAIL.
- DRY VERGE SYSTEM. EASY TRIM VERGE U COMPLETE WITH RIDGE CAPS, STARTER CAPS AND END CAPS.

**6. FASCIA, SOFFIT AND DOWNPIPES**

- BLACK ALUMINUM FASCIA AND SOFFIT, 10mm CONTINUOUS VENT GAP BETWEEN FASCIA AND SOFFIT (250MM OVERHANG).
- 125MM SEAMLESS BLACK ALUMINUM GUTTERS WITH 75MM X 50MM PVC DOWN PIPES.

**7. INTERNAL DOORS**

- DOOR FRAMES TO BE DEAL.
- FINISH SIZE TO BE EX 150MM X 50MM REBATED WITH 75MM X 20MM SPLAYED ARCHITRAVES STANDARD TO FLUSH DOORS.
- SOLID PLY VENEER FLUSH DOORS THROUGHOUT
- LOCKS AND HANDLES TO BE BRASS SONNATO BW450PB.
- 3 STEEL BUTT HINGES PER DOOR
- 22mm WHITE/RED DEAL SADDLE BOARDS, VARNISHED.
- DOOR STOPS TO BE FITTED TO ALL DOORS

**8. D.P.C.**

- DPC CAVITY TRAY OVER ALL OPES
- DPC TO BE USED UNDER WALL PLATE
- DPC OVER OPES 160MM X 65MM EXTERNAL

**9. OPES**

- ROW OF MASONARY MESH REINFORCEMENT FOR FULL LENGTH OF FRONT & BACK WALL ABOVE LINTELS

**10. WINDOWS & DOORS**

- UPVC DOUBLE GLAZED ARGON FILLED SOFT LOW-E WINDOWS TO BE INSTALLED THROUGHOUT
- MANUFACTURER'S CERTIFICATE FOR WINDOW & DOOR U-VALUES (MIN. 1.2W/$m^2$k FOR EXTERNAL DOORS AND 1.0 W/$m^2$k FOR WINDOWS) IS TO BE OBTAINED AND GIVEN TO COUNCIL ENGINEER.
- TRICKLE VENTS TO BE INSTALLED TO ALL WINDOWS
- SAMPLE OF DOOR & WINDOW TO BE PROVIDED PRIOR TO ORDERING.
- ALL BEDROOM WINDOWS TO HAVE MIN. OPE OF 850x500mm, ( IN COMPLIANCE WITH CURRENT BUILDING REGS) TO ALLOW ADEQUATE MEANS OF ESCAPE. CHILD SAFETY RESTRICTORS TO BE FITTED TO BEDROOM WINDOWS.
- COMPOSITE DOOR TO BE INSTALLED TO FRONT AND REAR DOORS
- COLOUR OF FRONT DOOR TO BE CONFIRMED ON SITE. MIN. 1.2W/$m^2$k FOR EXTERNAL DOORS AND 1.0 W/$m^2$k FOR WINDOWS
- GLAZING TO BATHROOM TO BE OBSCURED
- 19MM BULLNOSE WHITE DEAL WINDOW BOARDS, PAINTED.
- WINDOW BOARDS IN KITCHEN AND BATHROOM TO BE TILED.
- DOORS & WINDOWS TO INCLUDE ALL NECESSARY IRONMONGERY. RECEIVER TYPE ON EXTERNAL DOORS TO BE OF THE HOOKED TYPE. 5 POINT LOCKING SYSTEM.
- FRONT DOOR TO HAVE THRESHOLD HEIGHT OF 15mm, WITH EXPOSED EDGES CHAMFERED.
- GLAZING TO BATHROOM TO BE OBSCURED
- PRECAST CONCRETE SILLS (TO REAR) WITH DPC TO SIDES, BACK & UNDERNEATH TO BE USED THROUGHOUT.
- THUMB TURN LATCHES TO BE FITTED TO FRONT AND REAR EXTERNAL DOORS

**11. THERMAL BRIDGING**

- ALL INTERNAL PLASTER FINISHES OF SAND/CEMENT SCRATCH COAT TO GO DOWN TO FLOOR LEVEL.
- ALL ELECTRICAL CONDUIT IN ATTIC SPACE TO BE SEALED.
- AFTER FITTING OF WINDOWS & DOORS ALL GAPS TO BE SEALED BEFORE PLASTERING
- ATTIC HATCH TRAP DOOR TO BE FITTED WITH LATCH AND DRAFT EXCLUDER STRIPS.
- ALL PIPE AND SERVICE PENETRATIONS OF BUILDING ENVELOPE TO BE SEALED
- THERMAL BRIDGING & ABC DETAILS TO COMPLY WITH 2007 BUILDING REGULATIONS. **REFER TO THE DOCUMENT ' LIMITING AIR INFILTRATION - ACCEPTABLE CONSTRUCTION DETAILS'**

**12. WALL & CEILING FINISHES**

- 12mm FOIL BACKED PLASTERBOARD TO CEILING WITH SKIM FINISH
- 13mm THICK PLASTER FINISH MADE UP OF SCUD COAT, SCRATCH COAT AND SKIM COAT.
- MOISTURE RESISTANT PLASTERBOARD TO BE USED IN BATHROOM
- WALLS AND CEILING TO BE PAINTED WITH 3 COATS OF SOFT SHEEN EMULSION (COLOUR TO BE CHOSEN AT A LATER DATE).
- 112MM X 20MM BULLNOSED SOFTWOOD SKIRTING THROUGHOUT.
- WALL TO BE TILED IN KITCHEN TO UNDERSIDE OF OVERHEAD UNITS, STANDARD 100x100 CERAMIC PILKINGTON OEA. APPROPRIATE ADHESIVE AND GROUT TO BE USED. INCLUDE FOR ALL NECESSARY CUTTINGS AND TRIMS.
- FLUSH SOLID DOORS PAINTED WITH UNDERCOAT AND SATIN WOOD PAINT. TIMBERS TO BE PRIMED BEFORE APPLYING UNDERCOAT AND PAINT
- ALL SHOWER AND BATH FITTING TO BE FITTED TO WALL USING CLASSI-SESAL OR E/A FLEXIBLE WATERPROOF UPSTAND.
- MIRROR TO BE INCLUDED IN BATHROOM
- TOW ROW OF TILING TO BE PROVIDED ABOVE WASH-HAND BASIN IN BATHROOM. WALLS SURROUNDING BATH TO BE TILED TO CEILING.
- STANDARD 200x200mm CERAMIC PILKINGTON OEA. APPROPRIATE ADHESIVE AND GROUT TO BE USED. INCLUDE FOR ALL NECESSARY CUTTINGS AND TRIMS. PRIMER AND BAL TANKING SYSTEM TO BE APPLIED TO WALLS PRIOR TO TILING.

**13. VENTILATION**

- ALL WALL VENTS TO BE 125MM AAC125HPCWL – RYTONS COWLED SUPER ACOUSTIC CONTROLLABLE VENTS.
- MECHANICAL VENTILATION (VORTICE PUNTO EXTRACT FAN OEA) TO BE PROVIDED IN BATHROOM.
- EXTERNAL GRILLS TO MECH. FAN OUTLETS TO BE FLAP TYPE WITH PROTECTIVE WIND HOOD.

**14. KITCHEN**

- FITTED KITCHEN AS PER PLANS. 18mm MDF CARCASS AND FRAME. PVC FOIL WRAPPED DOORS, MAX. WIDTH 500mm. DOUBLE CARCASS ON HINGE SIDE OF DOORS. 30mm FORMICA COUNTER TOP. 180° DEGREE STAINLESS STEEL HINGES. WALL MOUNTED OVERHEAD CUPBOARDS
- STAINLESS STEEL SINK, 2 TAPS OR DECK MIXER ACCEPTABLE.
- FIT INTEGRATED COOKER HOOD, WITH 150mm DUCTING PIPE TO VENT. EXTRACTION RATE TO BE 150m³/H (ASSUMING 6 AIR CHANGES PER HOUR).

**15. TRAP DOOR**

- FORM TRAP DOOR IN CEILING IN POSITION AS WILL BE POINTED OUT FOR ACCESS TO ROOF INTERIOR.
- THE TRAP DOOR SHALL BE ACCOMMODATED WITHIN THE TRUSS SPACING AND SHALL BE 760MM IN DEPTH.
- THE TRAP DOOR SHALL BE CONSTRUCTED WITH 75 X 22MM STOP FILLET AND 12MM THICK CHIPBOARD COVER WITH FIRE BARRIER ON THE BACK [1/2 HOUR FIRE RATING IS REQUIRED AS PER PART B OF THE BUILDING REGULATIONS] AND FINISHED WITH EX 75 X 19MM ARCHITRAVE.
- WOODWORK TO BE PAINTED.

**16. RADON**

- RADON SUMP/COLLECTOR TO BE PROVIDED WITH 100mm DIA PVC PIPE WHICH IS TO TERMINATE OUTSIDE EXTERNAL WALL WITH BEND, CAPPED FLUSH WITH PATH. PIPE CAN BE EXTENDED AND FAN FITTED SHOULD SUBSEQUENT READINGS REQUIRE IT.
- 100mm MIN. TO BE LEFT EVERY 4TH BLOCK IN COURSE BELOW RADON BARRIER TO PROVIDE AIRFLOW TO RADON SUMP.
- PROVIDE REINFORCED RADON BARRIER WITH TEAR RESISTANCE > OR = 100N WITH VAPOUR TRANSMISSION OF < OR = 0.4/M2/24 HOURS WITH ELONGATION (AT MAX. LOAD) OR, > OR =12 WHEN TESTED IN ACCORDANCE WITH 10S 1421.
- OR, > OR =12 WHEN TESTED IN ACCORDANCE WITH 10S 1421.

**17. PLUMBING & HEATING**

**AIR TO WATER HEATING SYSTEM (SEE SEPARATE SPECIFICATION DOCUMENTS)**

ALL PRIMARY PIPEWORK TO BE INSULATED AS DETAILED IN TABLE 11 OF THE DOEHLG "HEATING AND DOMESTIC HOT WATER SYSTEMS FOR DWELLINGS - ACHIEVING COMPLIANCE WITH PART L 2008".

ALL PIPES IN ATTIC TO BE LAGGED WITH 19mm ARMAFLEX INSULATION.

ALL PIPES, VALVES AND SWITCHES TO BE VISIBLE AND CLEARLY LABELED.

- INCLUDE FOR SUPPLY AND INSTILLATION OF ALL NEW SANITARY WARE. TOILETS,SEATS,SINKS,TAPS, SHOWER DOORS, BATH,TOILET ROLL HOLDERS TO COMPLETE ALL BATHROOMS IN FULL.
- EASA 'ACCESS' SHOWER TRAY 1000x1000mm AND EASA EVOLUTION HALF HEIGHT DOORS ARE TO BE INSTALLED TO BATHROOM TO MANUFACTURER'S SPEC AND DETAILS.
- PROVIDE COLD WATER STORAGE TANK OF APPROX. 350 LITRE CAPACITY IN ROOF SPACE. PROVIDE EXPANSION TANK OF APPROXIMATELY 45 LITRE CAPACITY. EACH TANK SHOULD BE PROVIDED WITH APPROPRIATE COVER AND SUPPORTED IN ACCORDANCE WITH GUIDELINES AS SET OUT IN THE BUILDING REGULATIONS. WALKWAY TO BE LAID IN ATTIC FROM TRAP DOOR TO WATER TANK. LIGHT TO BE FITTED IN ATTIC.
- PROVIDE COLD WATER STORAGE TANK OF APPROX. 350 LITRE CAPACITY IN ROOF SPACE. PROVIDE EXPANSION TANK OF APPROXIMATELY 45 LITRE CAPACITY. EACH TANK SHOULD BE PROVIDED WITH APPROPRIATE COVER AND SUPPORTED IN ACCORDANCE WITH GUIDELINES AS SET OUT IN THE BUILDING REGULATIONS. WALKWAY TO BE LAID IN ATTIC FROM TRAP DOOR TO WATER TANK. LIGHT TO BE FITTED IN ATTIC.
- ALL SANITARY FITTING AND APPLIANCES TO HAVE FLEXIBLE PENNYVALVE FEEDS.
- FIT 'COMBIMATE' WATER SOFTENER TO ALL HOUSES.
- FIT 'MAGNACLEAN PROFESSIONAL' FILTER SYSTEM.
- GULLY TO BE INSTALLED UNDERNEATH HEAT PUMP SYSTEM TO COLLECT WATER EXTRACT FROM SYSTEM. GULLY TO BE LINKED TO FOUL WATER DRAINAGE SYSTEM. PVC DROP TO BE INSTALLED FROM UNIT TO GULLY UNDERNEATH TO ALLOW FOR CONDENSATION RUNOFF
- 50mm (min) DRAIN ADJACENT TO THE WATER TANK UNIT OF THE HEAT PUMP - PLUMPED TO THE OUTSIDE TO ALLOW FOR OVERFLOW.
- INDIVIDUAL WASTE PIPES REQUIRED FROM EACH SINK, DISHWASHER, WASHING MACHINE,WHB,SHOWER, BATH ETC. INDIVIDUAL WASTE PIPES TO DISCHARGE ABOVE FOOTPATH LEVEL INTO WASTEWATER GULLIES. ALL 90 DEGREE BENDS ON ALL WASTE PIPES TO HAVE RODDING FACILITY
- INCLUDE FOR INSTALLATION OF GALVINISED STEEL PROTECTIVE CAGES AROUND OUTDOOR HEAT PUMP UNITS (APART FROM ONE THAT IS MOUNTED AT HIGH LEVEL). CAGE TO HAVE DOOR FOR SERVICING. CAGE TO BE SUFFICIENT TO PROTECT UNIT FROM LARGE DOGS ETC.
- SUPPLY AND FIT GRUNDFOS SRT5.1.5C BAR TWIN IMPELLER REGENERATIVE SHOWER PUMP, ALL AS PER PUMP SPECIFICATION ISSUED BY CARLOW COUNTY COUNCIL

**18. ELECTRICAL**

- BATHROOM & EXTERNAL LIGHTS TO HAVE LED 12 WATT COOL WHITE BULBS FITTED.
- ALL SMOKE/HEAT DETECTORS TO BE LINKED.
- ALL ELECTRICAL WORK TO BE TO CURRENT REC1 STANDARDS.
- NO WALL SOCKETS ARE TO BE BACK TO BACK ON PARTY WALL
- ALL SMOKE / HEAT / C02 DETECTORS TO BE WIRED BACK TO INDICATOR PANEL UNIT, LOCATED BESIDE FUSE BOARD
- SHOWER INSTALLATIONS TO HAVE ESB CABLE TAILS FROM METER TO BOARD TO BE 16 SQUARE, AND CABLE FROM BOARD TO SHOWER MUST BE 10 SQUARE. BATHROOM LIGHT TO BE ON AN RCD.

**19. AIR TIGHTNESS TEST**

CONTRACTOR IS TO INCLUDE FOR CARRYING OUT AN AIR TIGHTNESS TEST. REQUIRED RESULT IS AIR PERMEABILITY RATE (Q50) OF NOT GREATER THAN 6 CUBIC METRES PER HOUR PER SQUARE METRE OF EXPOSED ENVELOPE AREA, TO ALLOW AN ENTRY INTO THE DEAP SOFTWARE FOR ADJUSTED RESULT OF AIR PERMEABILITY TEST IN AC/H ADJ OF NOT GREATER THAN 0.3.

**20. BUILDING ENERGY RATING (BER) CERTIFICATE**

CONTRACTOR IS TO PROVIDE BER CERTIFICATE ON COMPLETION OF CONSTRUCTION - MINIMUM ACCEPTABLE BER RATING IS A2

## NOTES

1. This drawing is the property of Carlow County Council, it is a confidential document and must not be copied, used, or its content divulged without prior written consent.
2. DO NOT SCALE, use figured dimensions only, if in doubt ask.

## KEY TO ELECTRICAL SYMBOLS

NOTE:
INCLUDE FOR ALL NECESSARY BUILDERS WORK AND ATTENDANCES FOR MECH. & ELEC. INSTALLATIONS.
ALL CHASINGS TO BE MACHINE CUT

- EXTERNAL LIGHT
- LIGHTING BATTEN
- DUAL GROUP IMMERSION HEATER
- 1 GANG LIGHT SWITCH
- 2 GANG LIGHT SWITCH
- COOKER SWITCH
- FRIDGE,EXTRACTOR,WASHING MACHINE ISOLATOR SWITCHES
- MECHANICAL VENTILATION UNIT (M AV)
- STRIP LIGHT SHAVER SOCKET
- DOUBLE SOCKET–WORKTOP LEVEL
- SINGLE SOCKET–WORKTOP LEVEL
- SINGLE SOCKET
- DOUBLE SOCKET
- TV AERIAL SOCKET
- CONSUMER UNIT WITH ELCB
- TELEPHONE POINT
- WALL MOUNTED HEATING CONTROL
- HEAT DETECTOR (Ei 164 RC)
- SMOKE ALARM (Ei 2110 MULTI–SENSOR)
- SMOKE ALARM (Ei 166 RC OPTICAL)
- EXTRACT FAN SOCKET
- DOOR BELL
- DOOR BELL PUSH

LOCATIONS OF FIRE STOPPING - WORKS BY APPROVED SPECILIST CONTRCACTOR

Ordnance Survey Ireland

*Includes Ordnance Survey Ireland data reproduced under Osi Licence Number 2010/21 CCMA Carlow County Council. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland Copyright*
*© Ordnance Survey Ireland 2015*

| No. | Date | | Amendment / Issue | App. |
|---|---|---|---|---|
| A | xx/xx/xx | T.T. / X.X. | xxxxxxxxxxxxxxxx | D.McI |

CARLOW COUNTY COUNCIL
HOUSING DEPARTMENT
Director Of Services: Michael Brennan
Tullow Civic Offices, Inner Relief Road, Tullow, Co. Carlow
Phone: (059)9136296 Fax: (059)9152156
Email: secretar@carlowcoco.ie

Engineers Ireland CPD
Carlow Local Authorities, A CPD Accredited Company

Project:

CONSTRUCTION OF 6No HOUSES AT BEECHWOOD DRIVE, ARDATTIN, CO. CARLOW

Title:

PROPOSED HOUSE TYPE A - ELEVATIONS AND CROSS SECTION

| | | | |
|---|---|---|---|
| Drawn by: | F.M. | Job No: | 2021-35- |
| Checked by: | L.S. | Drw Loc: | |
| Approved by: | L.S. | Drg. No: | 105 |
| Scale: | 1/ 50 @ A1 | Rev: | - |
| Date: | 26/04/2021 | | |