

# Architectural Specification

2311 - Community Roots, Porthtowan

March 2023

Revision	Date	By	Description
-			Draft issue.
A			Technical Issue
B	26/04/24		Tender Issue

# KASTARCHITECTS

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Company Number 9175770  
VAT Number 194 8022 91



# Contents

<b>SU - Sub Structures</b>	<b>3</b>
SU 01 Foundation	3
<b>SS - Super Structure</b>	<b>4</b>
SS 01 Timber Frame	4
<b>FL - Floors</b>	<b>5</b>
FL 01 Suspended Floor - Sitting on Jackpad foundation system	5
<b>W - Walls</b>	<b>6</b>
W 01 External Walls	6
W 02 Window Reveals	7
W 03 Internal Walls	8
<b>R - Roof</b>	<b>9</b>
R 01 Roof	9
R 02 Ridge	10
R 03 Eaves	10
R 04 Verge	10
R 05 Rainwater Goods	11
R 06 Loft	11
R 07 Pergola	11
<b>WD - Windows and Doors</b>	<b>13</b>
WD 01 External Windows & sliding doors	13
WD 02 Internal doors	13
WD 03 Hatch to office	13
<b>F Finishes</b>	<b>14</b>
F 01 Internal Floors	14
F 02 External Floors	14
F 03 Internal Walls	14
F 04 Internal Ceilings	15
<b>ME - Mechanical and Electrical</b>	<b>17</b>
ME 01 ASHP, Hot Water Cylinder and Underfloor Heating	17
ME 02 MVHR	17
ME 03 Electric Car Charing	17
ME 04 External lighting	17
ME 05 Underfloor Heating	17
ME 06 Solar PV	17
ME 07 Rainwater Harvesting	17
ME 08 Sanitary-ware Schedule	18
ME 09 Loft hatch to located in lobby on internal wall	18
<b>EX - External Works</b>	<b>19</b>
EX 01 Timber Deck	19
EX 02 Driveway/Parking	19
EX 04 Fencing	19
EX 05 Recycling store	19
EX 08 Drainage	19
<b>Building Notes</b>	<b>20</b>

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# SU - Sub Structures

## SU 01 Foundation

From Ground Up

1. Jackpad Foundation System
  - To engineers design and specification
  - Geotextile membrane (permeable) laid on excavated area. Terra - Terram 1000.
  - 150mm layer of well compacted hardcore
  - Jackpad foundation system with custom steel adjuster pads.
  - Details: See foundation plan 2311 4 0101 for location and quantity of Jackpads
2. Timber Perimeter Glu-lam Beams for subframe.
  - To Engineers design and specification.
  - Manufacturer: Buckland timber or similar
  - Size: 140x270mm
3. Timber perimeter to ground
  - To Engineers design and specification.
  - DPC membrane to lap over geotextile membrane.
  - Size: 100x200mm timber sleeper or larger available alternative. Detail TBC
  - Material: Treated timber.

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# SS - Super Structure

## SS 01 Timber Frame

1. Timber I joist frame to floor, walls and roof
  - To engineers design and specification
  - Manufacturer: Steico
  - Size: 60 x 300mm
  - Centres: 600mm [Walls possibly 400mm TBC Engineer]
2. Timber Lintels.
  - To engineers design and specification
  - 2no LVL R
  - Manufacturer: Steico
  - Size: 45 x 300mm
  - 3no 50 x 175mm CL24 Timbers to form lintel
3. Ridge beam to main space
  - To engineers design and specification
  - Size: 185 x 675mm GL24C as per engineers specification
  - Timber blocking to manufacturers specification
  - Species: Spruce
  - Finish: Clear graded for exposed visual use. Varnish tbc.
4. Ridge beam to WC and store
  - To engineers design and specification
  - Size: 185 x 350mm GL24C as per engineers specification
  - Timber blocking to manufacturers specification
  - Species: Spruce
  - Finish: Clear graded for exposed visual use. Varnish tbc.

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## FL - Floors

U-Value: 0.134 W/m2K  
From Outside to Inside

### FL 01 Suspended Floor - Sitting on Jackpad foundation system

1. Weatherproof boarding
  - Medite panel vent board or marine grade plywood or similar.
  - Strips beneath joists and in-between joists
  - Thickness: 18mm
  - Details: TBC
2. Timber joists as per **SS01** [Pg 4]
3. Insulation.
  - OPTION A
    - Manufacturer: PYC
    - Product: Warmcel
    - Thickness: 300mm
    - Installation: Blown in by suitable qualified persons.
  - OPTION B
    - Manufacturer: Steico
    - Product: Steico Zell
    - Thickness: 300mm.
    - Installation: Blown in by suitable qualified persons. Blinding capillary break
    - Thickness: 50mm
    - Material: 2-6mm clean angular stone.
4. Steel corrugated deck
  - Manufacturer: Lewis Deck
  - Thickness:
  - Material:
5. Screed
  - Manufacturer: Terra.
  - Product: Terram 1000.
  - Folded 150mm up face of slate edge tile.
6. Floor finish varies - as per **F 01**

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# W - Walls

U Value: 0.11W/m2K

## W 01 External Walls

1. Internal Finish varies: see finishes section of specification for details.
2. Softwood batten.
  - To form service void.
  - Size: 25 x 50mm.
  - Centres: 400mm
3. Air tight sheathing.
  - Manufacturer: Medite
  - Product: Smartly Propassiv.
  - Thickness: 12.5mm.
  - Installation: Follow manufactures guidance in 'MANUAL\_SMARTPLY\_PROPASSIV\_AIRTIGHT\_OSB.pdf' which is included in the specification file of this project.
  - Gaps: Min 3mm expansion gaps around edges of panels to accommodate movement.
  - Fixings: Stainless steel screws, wire nails, annular ring shank nails or proprietary gun driven nails with a minimum diameter of 2.8mm and a minimum length of 50mm.
  - Fixing Spacing: 150mm centres along the panel perimeters and 300mm centres on intermediate studs. Min 10mm from the edge of the panel.
  - Joints: All joints, seams and junctions taped with Tescon Vana.
  - Penetrations: Use appropriate Pro Clima grommet for all penetrations through the air tightness layer.
4. Timber stud work
  - As per **SS01 - Timber Frame**. Pg 4.
5. Insulation.
  - OPTION A
    - Manufacturer: PYC
    - Product: Warmcel
    - Thickness: 300mm
    - Installation: Blown in by suitable qualified persons.
  - OPTION B
    - Manufacturer: Steico
    - Product: Steico Zell
    - Thickness: 300mm.
    - Installation: Blown in by suitable qualified persons.
6. Wood-fibre Insulated sheathing
  - Manufacturer: Unger Diffutherm or Steico
  - Supplier: Back To Earth.
  - Product: Udi Top wood fibre sarking board.
  - Thickness: 60mm
  - Fixing: Final fixing through timber battens (See batten fixing below for details), temp fixing to contractors preference.
  - Exposure: Max 3 weeks exposure before installing breather membrane.

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7. Breather membrane.
  - Manufacturer: Amatop
  - Product: Amatop RF Black - UV durable
  - Horizontal Laps: 100mm
  - Vertical laps: 150mm
  - Fixings: Stainless steel large head nails in lap zone only.
  - Overlaps, junctions, edges and penetrations to be sealed with Ampacoll UV Flex - 60mm x 40m tape.
8. Treated timber batten
  - Size: 45x45mm
  - Centres: min 600mm
  - Fixing: Vertically back to timber stud through wood fibre insulation with Heco-Topix 316 stainless steel c/s screws(min 40mm embedment into timber stud). Screw sizes, spacings and all other fixing details as Heco Specification.
9. Insect Mesh \*\*
10. Treated timber counter batten - painted black
  - Size: 45x45mm
  - Centres: min 600mm
  - Fixing: 70mm 316 stainless steel screws.
11. Vertical timber cladding.
  - Supplier: TBC
  - Product: TBC
  - Species: TBC. British Larch / Sweet Chestnut
  - Grade: BS1186-3 Class 1 / EN942:2007 J10
  - Profile: Square edge.
  - Size: 65 x 20mm as shown on elevation.
  - Lengths: Random 1.5 - 3.0m.
  - Spacing: 10mm gaps between boards.
  - Fixing: Twice fixed at each batten with 50mm A4 Stainless steel annular ring shank nails head flush with timber surface - All fixings to be predrilled.
  - Treatment: HR Prof on north elevation to achieve Euro Class 0 for surface spread of flame.

## W 02 Window Reveals

1. Timber Reveals.
  - Supplier: To match timber cladding.
  - Species: To match timber cladding.
  - Profile: Square edge.
  - Size: 65 x 20mm.
  - Fixing: Fixing: Twice fixed at each batten with 50mm A4 Stainless steel annular ring shank nails head flush with timber surface - All fixings to be predrilled.
2. Treated Timber Batten at head.
  - Size: **TBC** with backing cut to accommodate aluminium drip.
  - Fixing: To timber stud as TBC
3. Aluminium drips.
  - Location: Behind cladding above all window and wall openings.
  - Size & Locations: **As shown on Drwg XXXX.**

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- Finish: Powder coated black.
  - Fixing: Stainless steel fixings through wood fibre insulation into timber frame.
  - Laps: Breather membrane lapped and taped over the top.
4. Internal finish on batten.
- Thickness: 19 x 50mm

### **W 03 Internal Walls**

1. Timber stud partitions
- As per engineers specification.
  - C16 Timber Studs
  - Size: 50 x 100mm

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# R - Roof

## R 01 Roof

From inside to outside.

U Value 0.11W/m2K

1. Internal Finish varies: see finishes section of specification for details.
2. Softwood batten.
  - To form service void.
  - Size: 38 x 89mm
  - Centres: 400mm
3. Air tight sheathing.
  - Manufacturer: Medite
  - Product: Smartly Propassiv.
  - Thickness: 12.5mm.
  - Installation: Follow manufactures guidance in 'MANUAL\_SMARTPLY\_PROPASSIV\_AIRTIGHT\_OSB.pdf' which is included in the specification file of this project.
  - Gaps: Min 3mm expansion gap around edges of panels to accommodate movement.
  - Fixings: Stainless steel screws, wire nails, annular ring shank nails or proprietary gun driven nails with a minimum diameter of 2.8mm and a minimum length of 50mm.
  - Spacing: 150mm centres along the panel perimeters and 300mm centres on intermediate studs. Min 10mm from the edge of the panel.
  - Joints: All joints, seams and junctions taped with Tescon Vana.
4. Timber stud work
  - To engineers specification.
  - As per **SS01 - Timber Frame.** [Pg 4]
5. Insulation.
  - OPTION A
    - Manufacturer: PYC
    - Product: Warmcel
    - Thickness: 300mm
    - Installation: Blown in by suitable qualified persons.
  - OPTION B
    - Manufacturer: Steico
    - Product: Steico Zell
    - Thickness: 300mm.
    - Installation: Blown in by suitable qualified persons.
6. Wood-fibre Insulated sheathing
  - Manufacturer: Unger Diffutherm or similar Steico product.
  - Supplier: Back To Earth.
  - Product: Udi Top wood fibre parking board.
  - Thickness: 60mm
  - Fixing: Final fixing through timber battens (See batten fixing below for details), temporary fixing to contractors preference.

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- Exposure - Max 3 weeks exposure before installing breather membrane.
7. Treated roofing batten.
    - Size: 45 x 45mm.
    - Centres: 400mm
    - Fixing: Vertically back to timber stud through wood fibre insulation with Heco-Topix 316 stainless steel c/s screws(min 40mm embedment into timber stud). Screw sizes, spacings and all other fixing details as enclosed Heco Specification and KAST Architects drawing number 1301. Please note that the enclosed Heco specification references non 316 stainless fixings due to an issue with their quoting software, this will need to be amended when ordering.
  8. Breather membrane.
    - Manufacturer: Ampack.
    - Product: Ampatop Aero.
    - Drape: 5mm between battens.
    - Horizontal Laps: 100mm
    - Vertical laps: 150mm
    - Fixings: Stainless steel large head nails in lap zone only.
  9. Treated timber batten.
    - Size: 25 x 50mm
    - Fixing: 65 x 3.35 galvanised ring shank nails.
  10. Corrugated Powder Coated steel
    - Manufacturer: Cladco
    - Colour: Goosewing grey
    - Size:
    - Lap: As per manufacturers installation instruction
    - Fixing generally: As per manufacturers installation
    - Fixing at eaves: As per manufacturers installation

## **R 02 Ridge**

1. Ridge tile.
  - Manufacturer: Cladco
  - Product: Plastisol PVC Ridge Flashing
  - Colour: Goosewing Grey.
  - Length: 3000mm with 200mm overlap between sections
  - Angle: 70°
  - Fixing: Ventilated dry ridge system with stainless steel fixings.

## **R 03 Eaves**

1. Plastic eaves tray.

## **R 04 Verge**

1. Ridge tile.
  - Manufacturer: Cladco
  - Product: Plastisol PVC Barge Flashing
  - Colour: Goosewing Grey.
  - Length: 3000mm with 200mm overlap between sections

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- Angle: 90°
- Fixing: Stainless steel fixings.

OR

1. Concealed timber barge board
  - Material: Treated Timber painted black
  - Size: 100x22mm.
  - Location: Fixed to vertical batten, behind final cladding finish.

## R 05 Rainwater Goods

1. Gutters.
  - Manufacturer: Lindab
  - Product: Half round - Majestic.
  - Finish: Galvanised.
  - Size: 125mm.
  - Brackets: Half round fascia brackets - Galvanised.
  - End caps: Half round end caps - Galvanised.
2. Downpipes.
  - Manufacturer: Lindab
  - Product: Half round - Majestic.
  - Finish: Galvanised.
  - Number: 4no TBC
  - Diameter: 125x75mm
  - Material: Galvanised.
  - Gutter outlets: 6no Half round gutter outlets - Galvanised.
  - Brackets: SSVU - Universal pipe brackets - Galvanised.
  - Gutter accessories: Pipe shoe to outlets onto pergola.

## R 06 Loft

1. Ceiling and Walls.
  - 12mm OSB on 25x50mm battens.
  - 18mm chipboard floor.
  - 50x200mm C24 ceiling joists at 400mm centres to structural engineers design.
  - Ladder as per **ME 09**

## R 07 Pergola

As per engineers design and specification.

1. Timber plate
  - To engineers specification
  - Size: TBC
  - Fixing: 2no coach screws through Compac foam thermal break into timber structure
2. Timber edge beam
  - To engineers specification
  - Size: 75 x 225 mm TBC

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- Fixing: 2no coach screws fixed into
- 3. Solid timber rafters.
  - To engineers specification.
  - Size: TBC
  - Fixing: Stainless steel joist hangers to edge and rim beam.
- 4. Timber purlins
  - Size: 45 x 45mm
  - Centres:
  - Fixings: TBC
- 5. Timber support posts
  - Size: 150 x 150mm
  - Centres: As marked on plan. Drwg 2311 4 0102
  - Fixings: Bearer to substructure. Post notched to support header edge beam
- 6. Corrugated Polycarbonate Roof Sheet
  - Manufacturer - Clear Amber
  - Model - Corrapol Stormproof High Profile
  - Size: As per manufacturers instructions
  - Spacing: As per manufacturers instructions
  - Fixing: Fixed with A4 Stainless steel screws and aligned with purlins.

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# WD - Windows and Doors

## WD 01 External Windows & sliding doors

### 1. Doors.

- Manufacturer: As window schedule.
- Product: As window schedule.
- Installation: To manufactures guidance and standard details.
- DPC Tray: Pro Clima Extoseal to return 150mm up sides of opening and 50mm down at front where possible this should also fold up to make a tray at the rear.
- Cill: Powder coated aluminium threshold profile fully bedded on silicone with full silicone bed between door and threshold. Suitable support packers beneath frame jambs and mullions, then at centres not greater than 200mm.
- Airtightness: Jambs and head to be taped to Propsassiv board with Tescon Vanna tape - See instructions for taping in 'MANUAL\_SMARTPLY\_PROPASSIV\_AIRTIGHT\_OSB.pdf' in the specification folder of this project. Silicone rod and bed at rear of door thresholds over Tescon Vanna air tightness tape.

### 2. Windows.

- Manufacturer: As window schedule.
- Product: As window schedule.
- Installation: To manufactures guidance and standard details.
- Weather seal: Compraband seal carefully installed between front of frame and breather membrane / DPC tray continuously around perimeter of window.
- Cill: Bespoke powder coated aluminium to match window frames. Screwed to packer under window frame.
- DPC Tray: Pro Clima Extoseal to return 150mm up sides of opening and to extend over batten and 50mm down at front.
- Airtightness: Jambs and head to be taped to Propsassiv board with Tescon Vanna tape - See instructions for taping in 'MANUAL\_SMARTPLY\_PROPASSIV\_AIRTIGHT\_OSB.pdf' in the specification folder of this project.
- Installation: Gap between frame and structural opening to be filled with flexible expanding foam as recommend by the manufacturer.

### 3. Roller Blinds.

- Mounted above windows

## WD 02 Internal doors

As Internal Door Schedule.

- Solid flush plywood.
- Double doors with glazed panels.

Door linings to be finished with clear oil to match walls and window finishes.

## WD 03 Hatch to office

- Structure: bespoke softwood structure lined in 18mm plywood.
- Ironmongery: Stainless steel parliament hinges.
- Handle: TBC

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# F Finishes

## F 01 Internal Floors

1. Screed painted with hardwearing epoxy floor paint.
  - Areas: As Shown on Floor Finishes Drawing.
  - Finish: Non slip epoxy paint.
  - Sealant: **TBC**
2. Coir entrance mat.
  - Areas: As Shown on Floor Finishes Drawing.
  - Thickness: 17mm.
  - Colour: Natural.
3. Marmoleum.
  - Areas: As Shown on Floor Finishes Drawing. All spaces bar the WC.
  - Supplier: Forbo.
  - Product: Marmoleum Walton.
  - Size: TBC Client.
  - Colour: TBC Client.
  - Finished: TBC Client.
  - Fixing: Glued to screed to manufacturers recommendations.
4. WC - Compliant Flooring TBC
  - As indicated on bathroom drawings.

## F 02 External Floors

1. Decking.
  - Areas: As Shown on Floor Finishes Drawing.
  - Supplier: TBC Client.
  - Product: TBC Client.
  - Size: 140mm boards.
  - Thickness: 20mm
  - Colour: TBC Client.
  - Finish: TBC.
  - Sealant: TBC
  - Fixing:

## F 03 Internal Walls

1. Fire treated OSB.
  - 12.5mm fire treated OSB generally.
  - Species: TBC Client.
2. Stainless Steel wall covering
  - As illustrated on kitchen elevations
  - Size: 3mm
  - Fixing: TBC.

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3. Window cills.
  - Material: Softwood.
  - Thickness: 32mm.
  - Finish: Clear oil or varnish to match walls.
4. Acoustic Mineral Wool.
  - Thickness: 50mm
  - Density: min 10kg/m3

## **F 04 Internal Ceilings**

1. Wood wool board.
  - Manufacturer: Troldekt
  - Product: Acoustic Board
  - Thickness: 25mm
  - Structure: Fine - 1.0mm wood wool
  - Colour: Natural Wood
  - Size: 1200 x 600mm
  - Edges: KO square edges
  - Fixing: Installed with screws directly on wooded battens using Troldekt structure screw for wood and steel, PH2 4.2 x 45mm. 6 screws per panel (3 along each long edge). Fixings to be 25mm in from edge of panel and equally spaced.
2. Flat ceiling above WC skimmed and painted plasterboard

## **Bathroom Wall finishes**

1. As shown on bathroom elevations.

## **Joinery Items**

1. As finishes drawings

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## Internal Finishes Schedule

Main Spaces - Hall, Lobby, Office		
Floor	Marmoleum	As Clause F01.3
Ceiling	Troldekt	As Clause F03.2
Walls	OSB panelling	As Clause F03.1 As Clause F03.2
Store		
Floor	Polished Concrete	As Clause F01.1
Ceiling	Troldekt	As Clause F04.3
Walls	OSB panelling	As Clause F03.3
Bathroom		
Floor	Suitable compliant finish Moisture resistant plasterboard - where painted	As Clause F01.1 As Clause F01.4
Ceiling	Plasterboard, painted	As Clause F03.2
Walls	Altro Whiterock	

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# ME - Mechanical and Electrical

## ME 01 ASHP, Hot Water Cylinder and Underfloor Heating

1. Ground Source Heat Pump.
  - Manufacturer: Kensa
  - Model: Shoebox Series
  - Size: 6kW
  - Details: See Kensa specification and installation guidance for full details.
2. Hot Water Cylinder.
  - Spec: See Kensa specification and installation guidance for full details.
  - Size: 200L.

## ME 02 MVHR

1. Manufacturer: Zehnder
  - Product: Comfoair
  - Model: Q350
  - Ductwork: Semi rigid radial pipework.
  - Ventilation rates: To meet building regs requirements.
  - Internal Vents - Lindab Airy as shown on lighting plan.
  - External vents - Zehnder ComfoPipe Plus external louvered grille, stainless steel with 125mm Spigot.

## ME 03 Electric Car Charing

1. 22kw EV charger. Location TBC.

## ME 04 External lighting

1. TBC.

## ME 05 Underfloor Heating

1. Under floor heating throughout ground floor with exception of store.
  - Installation: Cable tied to mesh in concrete slab.
  - Zone: All rooms on separate heating zones, thermostats in each room below light switches (as shown on small power plan).
  - Thermostats - Contractors proposals.

## ME 06 Solar PV

1. As Natural Generation specification.
2. Battery storage to be incorporated. Location TBC.

## ME 07 Rainwater Harvesting

1. Rainwater Harvesting Ltd. Header kit for external and toilet flushing
  - 2no 7500L tanks

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## ME 08 Sanitary-ware Schedule

Changing Places WC			
Item Ref	Item	Manufacturer	Specification
	All TBC		Recommended cost £12-17000 (Full CP fit out)
Kitchen			
	All equipment TBC		Stainless steel modular units and fittings.
	Handwash basin		
	Double basin		
	Electric hob and ovens		
Store Room			
	Shelves	Vogue	Stainless steel modular shelves

## ME 09 Loft hatch to located in lobby on internal wall

1. Standard appropriate sized ladder stored in tall cupboard for access to loft when needed.

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# EX - External Works

## EX 01 Timber Deck

1. Decking.
  - To match timber cladding.
2. Treated timber frame.
  - Size: As per engineers specification
3. Support pedestals.
  - Manufacturer: Jackpad
  - Product: Jackpad with adjusters.
4. Sleeper.
  - Location: Around perimeter to retain terrain.
  - Size: 200 x 100mm.

## EX 02 Driveway/Parking

1. Self binding compacted gravel.
  - Supplier: Contec SW
  - Product: Self binding aggregate.
  - Colour: TBC
  - Source: Cornwall
  - Size: 0-6mm
  - Compacted thickness: 50mm
  - Subbase: 150mm compacted MOT type 1.

## EX 04 Fencing

## EX 05 Recycling store

1. Recycling store.
  - Manufacturer: TBC.
  - Description: 2no 1500 x 600mm timber stores big enough for 2 wheelie bins each.
  - Base: 150mm compacted hardcore, 50mm cement sliding layer (if required) and reclaimed paving slabs on top. Base dimensions 750 x 3300mm.

## EX 08 Drainage

To be installed as drainage engineers design. Electrical connection required to the blower unit box.

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# Building Notes

## Statutory Consent

- All forms of construction and materials specified throughout the detailed drawings and construction notes should meet with the requirements of the current Building Regulations and all other statutory bodies. Any alternative materials or deviations from the specification and drawings may only be used if they meet with the local authority building control & KAST Architects approval.
- New electrical connection to be approved by National Grid.
- New water connection to be approved by South West Water.
- All existing drains to be traced and those suspected to run close to or under the new works are to be uncovered, treated or repaired as necessary to the satisfaction of South West Water and or the Environment Agency.

## Kast Architects

- All dimensions and drawings are as accurate as possible but contractor is advised to check all dimensions, levels, angles, roof pitches etc. before commencement of work or work section. KAST Architects will accept no responsibility for the contractor's failure to do so.
- KAST Architects as agents for the client, accept no responsibility for any work carried out prior to the receipt of Building Regulations approval and/or Planning Permission.
- KAST Architects as agents for the client, accept no responsibility for any work not carried out in accordance with the approved detailed drawings or for any work not carried out in strict compliance with the Building Regulations.

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## Part A Structure

- All structural information in this document the specification and noted on the drawings associated with the contract must be cross-checked with Structural Engineer's drawings.
- For all structural calculations and details refer directly to structural engineer's drawings/specification.

## Part B Volume1 Fire Safety

### Means of Warning

#### Fire Detection and Alarm Systems Design and Installation

- The proposed dwelling must be provided with a fire detection and fire alarm system in accordance with the relevant recommendations of BS 5839-6:2004 to at least a Grade D Category LD3 standard.
- System to be mains operated in accordance with BS EN 14604: 2005 or BS5446-2: 2003 and must be battery backed up (either rechargeable or non-rechargeable).
- Smoke and heat detectors must be interlinked together, so that all sound the warning should one of the detectors operate. Smoke detectors are required to be fitted to all floor areas located in circulation areas within 7m of likely fire hazard rooms ie. Kitchens and living areas and within 3m of bedroom doors and at least 300mm away from any wall light fitting and installed strictly in accordance with manufacturer's specification and details to BS 5446 Part 1
- Locations of detectors must allow for ease of maintenance, cleaning and testing.
- A heat detector is located in the kitchen, interlinked with the smoke detectors.
- Detectors will be ceiling mounted and in a central position at least 300mm from any wall or fitting. Manufacturers guidance must be checked carefully when positioning the units in case of conflicting advice due to the particular system specified.
- Occupiers must receive the manufacturers' instructions concerning the operation and maintenance of the alarm system in accordance with BS 5839-1 and BS 5839-6.

#### Means of escape

- All ground floor habitable rooms are provided with an escape window or door that complies with AD BVol1, paragraph 2.8.

#### Internal fire spread (linings)

- The surface lining for all rooms including circulation spaces will meet Class 1 internal fire spread of flame and as a minimum, comply with ADB Vol1, paragraph 3.1.

#### Internal fire spread (structure)

- All load bearing elements: Structural engineer will calculate the fire resistance of the timber structure, following BS EN 1995-1-2 Eurocode 5 or BS 5268, and submit calculations to Building Control Approved Inspector for approval prior to manufacture. Minimum requirements are stated in AD B Vol1, Table A1.
- Charring calculations provided by structural engineer where required.

#### External fire spread

- Roof coverings: All roof coverings will be Designation AA as defined in AD B Vol1 Table 5.
- Timber cladding to North elevation to be treated to achieve Class 0 for surface speed of flame.

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## Part F Ventilation

- The minimum whole dwelling ventilation rate is to be provided by an MVHR unit.
- Whole dwelling ventilation rate to be at least 37l/s in accordance with table 1.3 of Part F(1) of the building regulations.
- All mechanical ventilation systems to be installed in strict accordance with manufacturer's instructions.

## Part C1 Site preparation and resistance to contaminants

- Ground preparation including radon protection measures are required. These are specified on the Architects drawings and specifications).
- See contaminated land reports for issues pertaining to contamination.

## Part G Sanitation, Hot Water Safety and Water Efficiency

- House not to exceed water efficiency requirement of 125 litres, per person, per day.
- Hot water supply to fixed bath to be limited to 48 degrees celsius.

## Part H Drainage and Waste Disposal

### Storm water

- Rainwater and foul drainage as drainage engineers design.
- External areas to fall away from wall perimeter and be free draining.
- All work above ground to comply with BS5572:1978
- All Below ground all work to comply with BS8301:1985.

## J Combustable Appliances

### Wood Burner

- 5KW or less with suitable stainless steel flue min 150mm diameter to be installed and commissioned by a qualified HETAS engineer. Hearth to be suitably non combustible material at least 12mm thick and a minimum of 150mm larger than stove at sides and minimum 300mm larger than stove at front. Hearth to be a minimum 150mm from wall to create a minimum 300mm clear space between wall and appliance

## K Falling, Collision, Impact

### K2 Protection from falling

- Where the difference in level between the floor and the ground outside the glazing is more than 2m, the glazing below 800mm must act as guarding except where separate guarding is provided.
- Where low level windows are also designed as escape windows, 'permanent' restrictors would not be suitable as they would prevent the window opening wide enough to allow escape. To be suitable for means of escape, the top of the guarding should be 1100mm above the floor level and the minimum dimension, 450mm, and area of the opening, 0.3m<sup>2</sup>, should be measured from the top of the guarding up to the top of the opening.
- K4 Protection against impact with glazing
- In critical locations as defined in K4 of AD K diagram 5.1, glazing is specified to break safely, satisfying the following requirements:
- Class 3 of BS EN 12600 or Class C of BS6206, EXCEPT for doors or door side panels.

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- Class 2 of BS EN 12600 or Class B of 6206 if installed within a door or door side panel.
- The window and door manufacturers respectively must clearly locate safety glass locations in accordance with current building regulations on elevation drawings. This must be submitted to Building Control Approved Inspector for approval prior to manufacture.

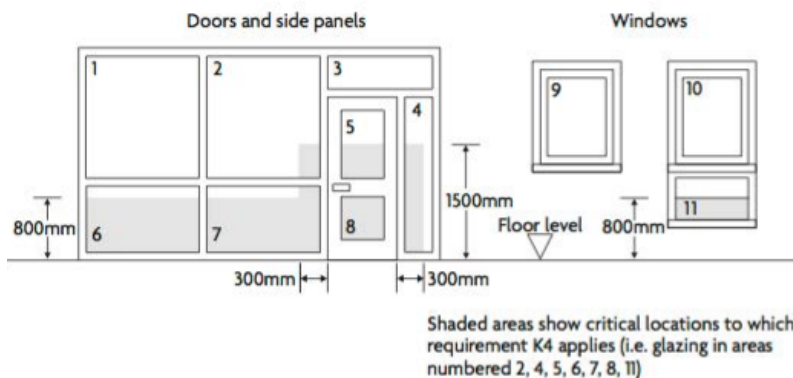


Figure 4: AD K Diagram 5.1 - Critical glazing locations in internal and external walls

## L1B Conservation of Fuel and Power

Fabric Standards:

- Design values are as detailed on drawings and in specification.
- Air sealing: Ensure envelope is continuously air sealed with particular attention at window openings and service penetrations.
- Fixed internal lighting: to be low energy LED fittings.
- Fixed external lighting: to be low energy LED fittings.
- Services installation: It is the responsibility of the main contractor to ensure that the completed work is in full compliance with the Domestic Building Services Compliance Guide.
- Commissioning of heating and hot water systems: will be done in accordance with AD L1B, paragraph 5.24-5.31. Commissioning will be carried out by a person registered with a competent person scheme and the notice of commissioning must be issued to Building Control Approved Inspector within 30 days of completion of the commissioning work.

## Part M Access and Security Proposals

### M1 Entrances

- Principal entrance will be illuminated as shown on lighting plan.
- Principal entrance will have an accessible level access over the threshold, with a threshold up stand not exceeding 15mm, all conforming to AD M and AD C.

### M1 Horizontal and Vertical Circulation

- Entrance door clear width: will be a minimum of 800mm.
- Internal door clear width: will have a clear opening of more than 775mm
- Corridor width is a minimum of 1050mm which will allow for wheelchair access through 775mm doorways when approach is not head on, in accordance with AD M Table 4.

### M1 Location of services controls

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- Switches and socket outlets for lighting and other equipment will be mounted between 450mm and 1200mm above finish floor level and a minimum of 300mm away from any internal corner;
- Similar controls must be mounted in similar locations throughout the dwelling wherever possible;
- Consumer unit must be mounted so that the switches are between 1350mm and 1450mm above finish floor level;
- Fused spurs to assist with future adaptations are included.

#### M1 WCs and Bathrooms

- Entrance level WC minimum requirements: WC door opens outwards, and is positioned to provide WC access in accordance with AD M Table 4.
- The WC compartment provides a clear space for wheelchair users to access the WC, in accordance with AD M Diagrams 31 and 32, and the wash basin is positioned so that it does not impede access.

#### Part P Electrical safety

- All electrical work must be carried out by a suitably registered and competent person.
- Electrical installations must be designed and installed in accordance with BS 7671:2008 incorporating Amendment No. 1:2011
- All electrical work related to the project is notifiable and is subject to Building Regulations Part P and AD P respectively.
- The electrical installer must provide a Building Regulations compliance certificate for completed and tested work to the main contractor and submit a copy of the certificate to Building Control Approved Inspector, all within 30 days following completion of the work.
- Provision of information: the Home User Guide will contain sufficient information in accordance with AD P and BS 7671, to ensure that the building user can operate an electrical installation with reasonable safety. All other information must be provided to the building owner to ensure that they are able to maintain or alter an electric installation with reasonable safety, including electrical certificates, reports, permanent labels, operating instructions and logbooks, and detailed plans.
- All switch and socket heights to be set between 450mm and 1200mm above FFL.
- In-building physical infrastructure to prove gigabit ready internet connection from the network termination point to the network distribution point.

#### Part Q Security

- All easily accessible door sets and windows will be designed in accordance with the British Standard publication PAS 24:2015.
- Letter box to be externally mounted.
- The main door for entering a dwelling has a glazed panel within or next to the door.
- The main door is to have a chain or door limiter.

#### Material and workmanship

- Materials and workmanship standards must comply with Approved Document 7.
- All contractors must be fully aware of their obligations contained within Approved Document 7 to ensure that the required standards relating to materials and workmanship are complied with.

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