

## **Beattie Passive**

### **CONTRACTOR'S PROPOSALS**

for the

### **HOUSING DEVELOPMENTS (Great Yarmouth Development Company)**

### **DESIGN AND BUILD PROJECT**

**1.0 GENERAL:** All drainage to be laid and tested to Building Control approval. Contractor to check all dimensions on site prior to any fabrication/execution of any works and further check with DIAL BEFORE YOU DIG to determine layout routes of all existing services (i.e. gas, electricity, water, drainage). All timber treatment in accordance with BS 5268. Ensure any punctures to floor, walls and ceilings are sealed to eliminate air infiltration- all to BR265:1994 including fully seal all dry linings. Contractor to ensure site is fully sealed off with Heras fencing having appropriate Health and Safety signage in place. Contractor to keep immediately adjoining owner/occupier advised in advance of all programme of works where same may be affected

**2.0 FOUNDATIONS:** Refer to Beattie Passive/Engineers' details for foundation design.

**3.0 GROUND FLOOR:** To U-value **0.09W/m<sup>2</sup>K** as per Beattie Passive system

**4.0 EXTERNAL WALLS:** **0.11W/m<sup>2</sup>K**. as per Beattie Passive system

**5.0 STAIR:** Minimum unobstructed width of 900mm (or 800mm where continuous handrails are fitted to both sides) with 200mm risers and 225mm minimum goings (ensures  $2r+g=625\text{mm}$ ), 41.6° pitch. Minimum 16mm nosings and minimum 2000mm finished headroom measured vertically off nosing line. Ensure landing depth is minimum 900 mm. Handrail up stair flight minimum 840mm vertically above nosing line with no gap in either to exceed 99mm.

**6.0 FIRST FLOOR:** Fix 22mm V313 P5 moisture resistant chipboard to Easi-joists fixed on hangers to ring beam with vapour check at first floor level as Manufacturer's/Engineers' details. Underside lined with 15mm Plaster Board fixed in accordance with manufacturers requirements, to give fire resistance . 100mm of acoustic insulation fitted between joist . Ensure timber framed panels directly above and below are securely fixed at head and base.

**7.0 PITCHED ROOFS** Open vented cold roof with concrete interlocking tile fixed to 25mm treated sw timber

**8.0 Insulation at ceiling level :** U-value **0.09W/m<sup>2</sup>K** as per Beattie Passive system

**9.0 INTERNAL PARTITIONS:** All in 75 x 45mm timber studs at maximum 600mm centres with 1 row Nogging and lined both sides 12.5mm plasterboard taped and filled or Plaster coated . Ensure green (moisture resistant) board used at shower perimeter for full height ceramic wall tiling. Studs at bathroom, wc and bedrooms lined with 12.5mm 10kg/m<sup>2</sup> density plasterboard and filled with min 75mm mineral insulation quilt and to achieve airbourne

sound insulation . Walls adjacent to ground floor wc and around shower in accessible sanitary accommodation to incorporate 12mm ply behind lining for future fixing of grab rails.

**10.0 PARTY WALLS: U-value 0.123 W/m<sup>2</sup>K** as per Beattie Passive system and to exceed current standards sound to be verified by sound tests.

**10.0 DOORS:** Doors to satisfy the latest Secured by Design requirements. Provide appropriate certification with tender submission. Level access thresholds to be 15mm upstand. External door numbers will be provided.

Entry Door - External doors to be insulated solid core proprietary timber door component, pre-finished and with a minimum U-value of 0.79W/m<sup>2</sup>°C and a design and wind pressure exposure rating of 2400 (pa) min..

Internal doors - All internal door sets to be 900 mm in width with a clear opening size of a minimum of 826 mm with 30 mm wide x 18 mm maximum height tapered high hardwood threshold, subject to satisfaction of barrier free requirements where specified. Internal doors to be flush, solid core with plywood facings suitable for painted finish; hardwood lipping two long edges; 40 thick. To be supplied from Employers' preferred list or approved. Internal doors to be painted in lieu of veneered.

**11.0 WINDOWS:** High performance triple glazed PVC, without ventilator, in frame with factory applied opaque stain finish and fully weather sealed to all opening edges. Ensure all are fitted with perimeter draught strips to eliminate air infiltration and meet a maximum "U" value of 0.79W/m<sup>2</sup>k. All windows and door glazing less than 800mm above floor level, shower screens and internal glazed doors (including sliding mirrors) to have toughened glass resistant to human impact in accordance with BS 6262. Windows with EW alongside denote escape type and must have a minimum of 0.33 sqm. opening area with at least 450mm unobstructed in both width and depth and a height between 800 and 1100mm from floor level to opening part. All first floor windows to be fitted with easy clean hinges. Ensure robust fixing and installation for security in accordance with section 8 of BS 8213-4: 2007; either internal or external pane to be laminated to prevent forced entry and meet the requirements of Secure by Design. Robust key operated locks to be fitted to all ground floor windows. Upper floor opening windows to be fitted with a window restrictor. Window restrictor to allow window to open between 50 – 100mm even when restrictor is being used.

**12.0 VENTILATION:** Install electrical extracts ducted to MVHR. Genvec central system 92% efficiency, or other make to conform with Beattie Passiv House specification. Heating to air supply inline electric heater 1.2kw

**13.0 ELECTRICAL:** All to current IEE Regulations, designed, constructed, installed and tested in accordance with BS 7671:2008, as amended submitted only by a person or company having membership to S.E.L.E.C.T. or N.I.C.E.I.C. or similar electrical schemes 6.6 in Employers' Requirements. Smoke detectors wired direct to electric mains supply with battery back up, minimum 300mm from any light fitting and wall face and 3000mm maximum from any bedroom door and all to be interconnected. Ensure all new electrical boxes on external walls are sealed to limit air infiltration by screw fixing boxes to behind through vapour barrier and also fire resistant silicone seal where passing through barrier. . All kitchen appliances to have switches remote wired to worktop level. Fittings and heights as Section 6.6 and 'APPENDIX 2 - ELECTRICAL ACCESSORY HEIGHT SCHEDULE' in Employers' Requirements. Electrical accessories by MK Electric Ltd or simpler  
A fused spur point adjacent to the consumer unit within houses for installation of possible future burglar alarm to be provided. Residual circuit devices to be incorporated into distribution installation.

**14.0 PLUMBING/DRAINAGE:** Showers and hot water supply to baths fitted with anti-scald thermostatic mixing valves and have continuous trap access. Ensure unobstructed activity space maintained directly in front of ground floor wc as shown at minimum 800mm wide and 1100mm deep. All appliances connected separately to 100mm diameter uPVC foul pipe within skirting ducts on ground and first floor. All connections to be made separately to SWVP as shown (wc 100mm dia and all remainder 40mm dia). All gutters in 100mm deepflow to 68mm dia rainwater pipes with hand holes at base connected into underground drainage as site plan. Externally foul and storm in 100mm dia uPVC to fall between 1:40 and 1:80 with all pipes in pea gravel surround or encased in concrete if cover less than 600mm. Drain tests to be carried out, signed off by responsible person, at sub-structure before concrete slab is poured.

**15.0 LIGHT FITTINGS:** All the light fittings are to be a low energy type. Electrical light switches to be illuminated large rocker pad type. Florescent fittings are not to be used. External house lighting to comply with SBD standards.

**16.0 ACCESS:** Ensure minimum 1200mm square plat provided at doors as detailed flush with floor level (no step down) with drainage channel. Provide 1200 x 1800mm area at rear for wheelie bin stance.

**17.0 IRONMONGERY:** All ironmongery to doors and windows to be easy to manipulate and located at levels suitable for all users. Door furniture, i.e. door handles & latches to have no plastic. External door ironmongery to satisfy Fire officer's requirements as well as SBD requirements.

Ironmongery fittings for each door:-

House Front Door – Passive u-value and SBD

House Rear Door – Passive U-value and SBD  
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Internal Doors -

Hinges appropriately supplied to suit weight of door.

Doorstops to be fitted as required to prevent doors from damaging wall finishes when opened.

3 steel loose pin hinges.

Mortice latch.

1 set lever handles.

Bathroom Door -

Bathroom door to be of solid core construction.

Doorstop to be fitted as required to prevent pass door from damaging wall finish.

Bathroom door to be fitted with appropriately dimensioned thumb-turn locking device which can be unlocked from outside in emergency situations.

3 steel loose pin hinges.

Bathroom lock with indicator and external release.

1 set lever handles.

## **18.0 WALL FINISHES:**

Kitchen -

Three rows of 152mm square glazed tiles to be fitted above all worktops. Tiling to extend one tile below worktop at cooker space only. Wall tiles to run from internal cover to internal cover/door facing along length of worktop. The joint between the tiles and sink top to be pointed with white silicone sealant or equivalent.

Walls should be finished with vinyl matt and ceilings with vinyl matt emulsion.

#### Bathroom -

Walls and ceilings should be finished with vinyl matt emulsion paint.

Three rows of 152 mm square glazed tiles to be fitted above WC cistern and continuously taken over adjacent wash hand basin without break and to connect with full height tiling to bath area.

Both short ends and length of bath to receive full height 152 mm square tiles. Tiling to be extended to about bathroom door facing and skirting.

Shower screen to bath.

Plywood lining to bathroom and WC walls for future fittings.

#### General -

All plasterboard wall and ceiling surfaces are to receive one paint application of a mist coat to allow any marks, blemishes, untidy taperwork/joining, screwfixing etc to be properly repaired and prepared prior to finishes coats being applied. All plasterboard to be screw fixed. Plasterboarding should have no patches above openings, taper edge to taper edge. Two coats of quality matt emulsion paint ie Crown or Dulux to be applied to all plasterboard wall and ceiling surfaces. Joiner to cut plaster-board to suit Electricians metal back box.

**19.0 FLOOR FINISHES:** All flooring joints outwith normal component module width to be fully supported and glue\screw-fixed to continuous tin of. Skirtings, facings, door frames\stops, window cillboards, aprons and window ridges are all to be dressed redwood BS1186 Part 3 and to be kiln dried to 12-14% relative humidity or time of site delivery.

All redwood material to be sanded free of all marks (pencil, dirt, finger prints etc) prior to first application of satin varnish. Second coat of satin varnish only to be applied after further light sanding carried out to all surfaces. Third and final coat of satin varnish only to be applied after further light sanding carried out to all surfaces as final preparation. All redwood nail fixings to be counterpunched with all nail holes being filled with proprietary redwood filler.

All such fittings to be sanded to provide fully fitted and smooth, flush surface prior to varnish being applied. Slip resistant vinyl finish to be proved to all bathrooms, shower rooms, WCs, kitchens .

**20.0 CEILING FINISHES:** Ceiling finish throughout dwellings to be 15mm Plaster board or screw-fixed to underside of joists or bottoms as appropriate. Ceilings to receive one paint application of a mist coat to allow any marks, blemishes, untidy taperwork\jointing, screwfixing etc to be properly repaired and prepared prior to finishes coats being applied. Two coats of quality matt emulsion paint ie Crown or Dulux to be applied to all ceiling surfaces.

**21.0 PAINTING AND DECORATING:** All colour schedules to be submitted to. for approval, applied as follows,

Walls and ceilings: 1 coat sealer and two coats of vinyl matt emulsion.

Woodwork: knotting, oil based primer, undercoats & gloss paint or 3 coats on clear satin varnish\lacquer is the (Association's preferred specification)

External woodwork: microporous stain system to give a 5 year life span. Applied according to manufacturers instructions.

**22.0 KITCHEN FITTINGS & FURNISHINGS:** Round edge worktops, 40 mm thick minimum, sealed on underside, corner junctions and at sink cut-out. Stainless steel inset bowl sink with single drainer. CP short level mixer tap with ceramic dishes. Hot and cold copper pipe work and washing machine fittings and waste plumber work to be extended through haffits of kitchen base unit to allow ease of washing machine installation and specification. 625 mm minimum clear width for fridge space. Removable worktop on sw bearer at fridge space to accommodate tall fridge-freezer. 625 mm minimum clear width for cooker/fridge space. 500 mm minimum clear work surface both sides of cooker space. Drawer line base units with steel ball bearing runners

to be incorporated within kitchen. Wall units to be located to co-ordinate with tiling. Base units to be 600 mm deep. One drawer minimum to be provided for cutlery. Joint between tiles and worktop to be pointed with (Dow-Corning) Sealant or Equivalent. All kitchen units and components to be supplied from Employers' preferred list and installed in accordance with 'APPENDIX 1 – KITCHEN UNIT SPECIFICATION' in the Employers' Requirements. Allow minimum 625mm wide space for floor mounted white goods. A removable base unit rather than a space for a dishwasher to be provided. The plumbing and electrics to be provided will allow tenants to easily fit a future dishwasher should they wish to do so. Low Level socket to be provided for future provision of dishwasher (located behind removable base unit). Hinges on the doors of kitchen base units must be capable of allowing the door to open through 170 – 180 degrees.

**23.0 BATHROOM FITTINGS:** Where a bath is fitted, bath panel, with screwed access panel. Ensure that panel can be removed without disturbing skirtings. Bathroom bulkhead constructed in plywood to allow sufficient access to pipe work and with suitable discreet access points to allow fitting of shower with minimal disruption to duct. Additional framing to be installed for fixing of shower fitting and grabrails. White UPVC seal trim with integral flexible seal to be installed at wall/bath junction. Shaver point in bathroom to be provided. Soap dishes, toilet roll holders, towel rails and mirror to be provided.

**24.0 GENERAL FITTINGS:** All slatted shelving to have top edges chamfered and be hardwood lipped blockboard. All visible timbers inside cupboards to be dressed and dressed curtain plates to be fitted to all windows. Ends to be rounded and project 150 mm beyond window.

**25.0 SANITARY APPLIANCES:** All sanitary ware to be white. WC to be close coupled wash down wc unit in vitreous china, complete with plastic seat and cover. WHB to be vitreous china pedestal type. Taps to be CP short lever type with ceramic discs. Enamelled steel bath (white), 1700 mm long with non-slip finish, twin handgrips, taps to be CP short lever type with ceramic discs or enamelled steel or porcelain shower tray (white), with non-slip finish, side or corner entry.

**26.0 WATER INSTALLATIONS:** The service main to be fitted with an accessible lock shield valve immediately inside each unit. . Mains fed hot and cold water systems, hot water cylinders mains fed type with integral expansion space and complete with all necessary safety controls and fitted with an immersion heater. Heated with air source or Solar Panels All pipework to appliances to be fitted with isolating valves immediately below or adjacent to the appliance for easy removal and replacement of that fitting and/or taps, etc. An external cold water tap shall be provided within the rear garden.  
Kitchen - The hot and cold water services to the sink to be fitted with spurs with washing machine valves and blank caps. The sink base unit should be drilled to either accommodate these spurs or allow a flexible hose connection to be made from the washing machine. A standing waste 50 mm in diameter should be installed to the drainage system to take the washing machine discharge. Hot and cold water supplies to the sinks should be provided with branches as previously described for a washing machine.

. Showers over baths to be supplied and have thermostatic mixer valve type.

## **27.0 SPACE HEATING AND HOT WATER TREATMENT**

### **: Gas Combi boiler**

Heated towel rail to Bathroom and panel radiator to Living Room, output TBA.

Hot water : form Combi mains feed system

## **28.0 COMMUNICATION INSTALLATION:**

Co-axial television aerial outlet socket adjacent to a switch socket outlet to be provided in lounge and all bedrooms. All TV points to be taken back to a splitter box in the first floor cupboard so the tenant can connect an external wall mounted aerial to one point. Development to be digital TV Compliant. Provision shall be made for a telephone point in the living-room and all bedrooms. Wiring in conduit shall be run to a location agreed with BT.

### **28.1:- HOME OFFICE:**

A home office is to be provided to all dwellings and as per the working drawings consisting of two double low level power sockets and 2no. telephone points on a wall minimum 1.8m in length in relevant bedrooms or living rooms in areas that meet the day lighting criteria shown in HEA 1,

## **29.0**

### **DRYING FACILITY:**

A Rotary dryer to be located in each dwelling secure rear gardens with post and footing/fixings capable of holding 6m+ of drying line. for 3 or more bed dwellings. Refer to Planning Layout and External Works for relevant position.

### **30.0 CYCLE STORAGE:**

2 bedroom dwellings – storage for 2 cycles per dwelling. Where cycle storage is provided within a garden shed a minimum of 1sq m is required for garden tools. Shed entrances to be provided with a permanent lock to BS3621:2007. Sheds will be secured to the slab base under..

### **31.0:- HOME USER GUIDE**

A Home User Guide (HUG) will be provided for the development covering information relevant to the non-technical tenant/occupant on the operation and environmental performance of their home. The guide is to also provide information relating to the site and its surroundings. The content of the HUG will include the following with regards to operational issues a) environmental strategy/design and features b) energy c) water use d) recycling and waste e) sustainable DIY f) emergency information g) links, references and further information h) provision of information in alternative formats and the following with regards to the site and its surroundings a) recycling and waste b) SUDS c) public transport d) local amenities e) responsible purchasing f) emergency information g) links, references and further information.

### **32.0 RAINWATER COLLECTION**

Rainwater butt to be supplied and fitted to each property, Rain water butt with open access at the top (a lid is allowed) with a tap for drawing off the water, connected to the rainwater down pipe with automatic overflow into a conventional rainwater drainage system, detachable from the rainwater down pipe with a removable top or base for cleaning the interior. Minimum 200ltr capacity.

### **33.0 PRIVATE PATHS & PAVING**

1200mm wide paths of Precast concrete paving slabs 600 x 600mm slabs on washed sand and cement turned in on 150mm type 1 compacted stone base

### **PATIOS**

Precast concrete paving slabs 600 x 600mm slabs on washed sand and cement turned in on 150mm compacted type 1 stone base. Area typical minimum of 3.0M x 3.0M – see each plot external works layout DWG for specific layout area.

### **PARKING BAYS**

Red 65mm concrete block paving laid on sand with 'Terram' geotextile and 150mm type-1 compacted stone base. Contrasting stretcher course in blue to each bay perimeter and edged with PCC square top edgings.