General

- The external appearance of the housing at Old Town is intended to reflect the distinctive character of the Isles of Scilly and its vernacular architecture within the landscape.
- The architectural form and detail should be kept simple and functional.
- Material qualities including colour and texture shall reflect the vernacular of St Mary's and be guided by sustainable principles for sourcing where possible.
- The images below aim to convey some of the local distinctiveness and material qualities as a basis for this Design Code.









SELF-BUILD HOUSING, OLD TOWN, ST MARY'S, ISLES OF SCILLY – DESIGN CODE

General

- Materials shall be sourced in order of preference from Cornwall, South West or UK.
- The use of locally and South West sourced and produced materials will be encouraged, particularly for external walls and roofing materials.

BRE Green Guide

The BRE Green Guide for Specification shall be used as the guide for comparing the environmental performance of construction types. The following elements are to obtain an 'A' rating;

- Roof
- External Walls
- Internal Walls
- Windows

The following elements should obtain not less than a 'B' rating and should aim for an 'A' rating;

- Floors
- External Surfaces Boundary Protection.
- All timber for basic elements shall be from managed sources selected from suppliers certified by the Forest Stewardship Council (FSC) or Programme for Endorsement of Forest Certification (PEFC) or equivalent, with appropriate chain of custody documentation and from UK sources where appropriate and available.



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External Wall Finishes

The palette of building materials should reflect those that are traditional to Cornwall and the Isles of Scilly and limited to:

- Stone
- Roughcast Render
- Self-coloured lime render
- Painted Render
- Timber Weatherboard vertical or horizontal
- Slate hanging
- Traditional red brickwork for details including plinths, chimney stacks and other similar elements.

Granite

There is a limited quantity of granite on the Isles of Scilly and therefore use of it, if required, should be limited to plinths, garden walls and other smaller elements such as post bases for porches.



Roughcast render.







Painted Render.

Weatherboarding.

Stone and Render.

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SELF-BUILD HOUSING, OLD TOWN, ST MARY'S, ISLES OF SCILLY – DESIGN CODE



Render

- Render can be applied to stone, concrete block or timber framed backgrounds
- Render should be thrown roughcast or wood floated. Stop beads must not be used.
- Bell drop mouldings should not be used.
- Proprietary weepholes are to be avoided.

Airbricks

• Where necessary to satisfy Building Regulations, these shall be made of terracotta, stacked tile, stone or painted cast iron and not plastic.





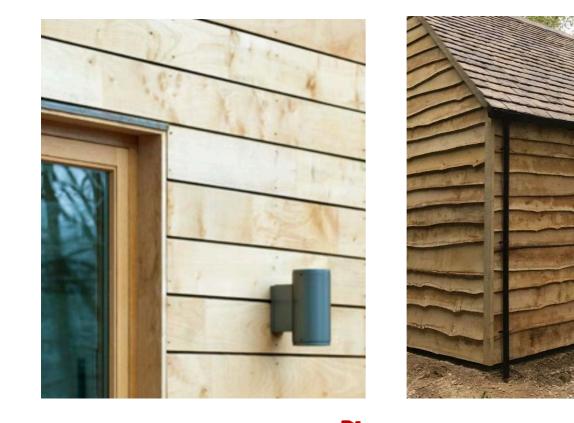
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Timber Cladding

- Cladding shall be plain weatherboarding laid horizontally or vertically.
- Timber for cladding shall generally be either Western Red Cedar or European Oak if left untreated or Douglas Fir if painted. Colours in accordance with agreed palette.

- Boards should be a minimum 16mm thick with minimum exposed face of 100mm.
- Corners may be formed either with boards crossed and cut or with corner posts.
- Window and door openings should be lined with boarding.
- Highly contemporary and precise timber cladding is not acceptable. •
- Self-colour fibre cement cladding is not acceptable.



Precise timber cladding

Wany edged



Square edged weatherboarding

Painted stonework with subtly painted fenestration.

Paint Finishes

- Environmentally friendly natural paints (which are odourless and solvent free) shall be used.
- Colours shall generally be white or tones made with natural pigments which can be found elsewhere in the locality.
- Colours in accordance with approved palette.

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Porches

- The design of the porch should respect the pattern and rhythm of other porches of adjoining buildings, but retain its own individuality.
- Dwellings are reasonably small and therefore where possible, porches should be simple and of lean-to or duo-pitched construction.

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- It is noted that partially glazed storm porches on the Isles of Scilly were historically used for propagation and as such, larger lean-to or duo-pitched structures may also provide additional space and benefit from solar gain.
- Columns, posts, piers and brackets can be of hardwood, treated timber or cast-iron. All timber preservative treatments must be transparent if paint is not used.
- When painted, porches should generally match the painted finish of the buildings, windows and compliment the colour chosen for the front door.
- The design of porches must reflect the scale and importance of the building.
- Door surrounds are not permitted.
- Stained timber or uPVC glazed porches are not permitted.
- Ornate timberwork or stone detailing is not acceptable.



Simple timber lean-to porch



Simple enclosed porch





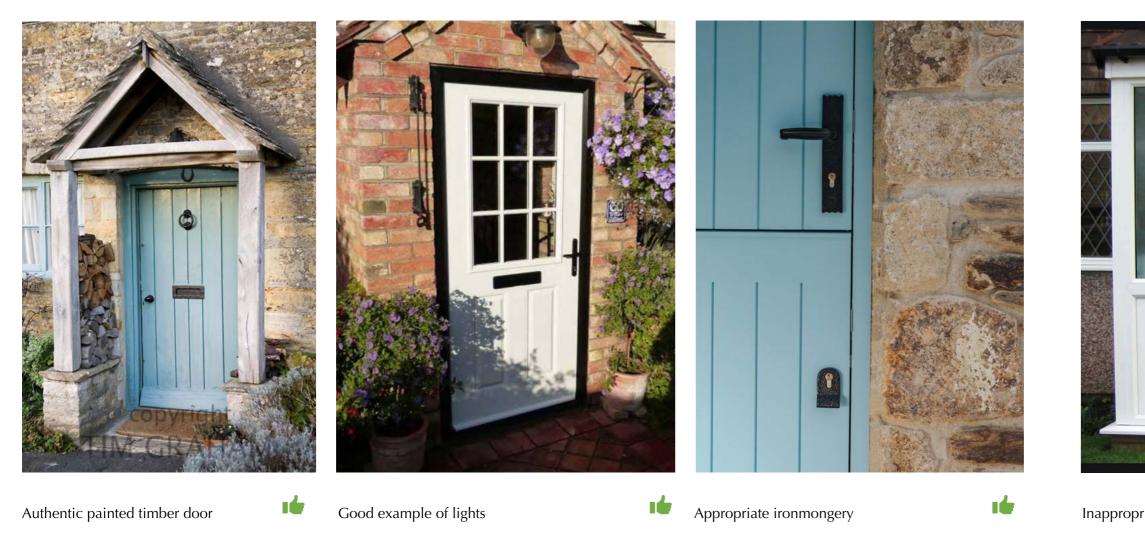
Inappropriate uPVC porch





External Doors

- Doors must reflect the character of the building to which they relate. External doors must be made of treated softwood or hardwood, kept simple and well-proportioned, normally with a strong vertical emphasis to the openings and a deep reveal. Composite timber doors are acceptable.
- Doors should be painted and should complement the colour of the building & window frames. Bright colours should be generally avoided. Varnished hardwood doors will not be allowed, even if authentically constructed, nor will stained tropical hardwood or glazed aluminium doors. Colours in accordance with approved colour palette.
- Preferred doors are panel and glazed doors, simple ledged and braced doors and Batten Doors.
- Moulded or pressed UPVC or metal doors will not be allowed.
- Very ornamental or patterned doors are not allowed.
- Ironmongery shall be stainless steel grade 316, solid brass, bronze or black iron of a type appropriate to the style of the door and house. Plastic or chrome numerals, letterboxes and knockers shall not be permitted.





Inappropriate uPVC door



Windows

- The overall size and shape of windows; the solid to void ratio of an elevation, pane sizes and proportions and glazing bars, are all critical elements to the overall appearance of a building.
- Window proportions to be based on a diagonal of 53 degrees. They are either side hung casements or sash windows, with a simple arrangement of glazing bars. Windows are generally between 797mm and 1135mm wide, with heights of 1350mm to 1500mm most common. Where present, dormers are small and simple with lead, rendered or slate hung cheeks.
- Ground floor windows on the property line shall be of the sash or inward opening casement type. Outward opening casements may be used only if, when fully opened, the window remains within the private margin.
- Windows must reflect the overall scale, proportions and design of the building. See table below for solid to void ratios and other criteria.
- Windows should be constructed of wood from sustainable sources and painted. Tropical hardwoods are not allowed. The size of all frame elements should be as slim as possible to maintain proportion and appearance.
- Stained timber, UPVC, or plastic-coated timber frames will not be permitted.
- Through frame trickle vents are to be avoided. Over frame concealed trickle vents are preferred.
- All glass shall be clear and free of colour; frosted, obscured, coloured or textured glass shall not be used. Obscured glass for bathrooms is acceptable.
- Windows should be painted white / off white or neutral shades but some can be white painted casement with neutral coloured window frames.
- All windows, as a minimum, should be double glazed with low e glass. Sealed units are to be filled with low emissivity argon. French doors and window panes below 800mm above floor level should have laminated safety glass.

25%
d up to 2500 sq. ft. 30% void more than
20%
pening to building 450mm
adow/Door: 2.5m ² /3.5m ²
/indow/Door: 2400mm/2400mm
indow/Door: 1500mm/1800mm
n roof-plane: 10%
ed onto floorplan) 2.25m ² /1.0m ²
/Rooflight:
Dormer Window/ 1500mm/1000mm
Dormer Window/ 1500mm/1000mm

Solid to void ratios for windows



Rise and fall sash.



Side hung casement

Poorly proportioned uPVC window.

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Window Proportions

- When used, glazing bars in sash windows should create panes that are vertical in emphasis and follow the traditional 4, 9, 12 or 16 pane pattern. All panes must be the same size and proportion on an elevation.
- Glazing bars shall not exceed 25mm finished width. Timber beads should have a small moulded profile.
- Widths of frames on casement windows should not exceed a total of 100mm.
- Windows should generally be set back at least 50mm from the building face, creating a shadow line and a sense of solidity. Windows in stone buildings will normally be set back from the face of the building by a minimum of 100mm.
- Fenestrations should maintain a vertical configuration and window panes must approximate to the root-two rectangle as described above.
- Window designs which are asymmetrical or of horizontal emphasis are not permitted. •
- Windows on upper floors must be either equal or smaller than windows on the ground floor. •
- Windows shall be placed no closer than 900mm to the centre line of the nearest party wall or to a corner of the building.

Finishes

• Windows should be painted white or off white or neutral tones.

Details

- Shutters are not allowed externally.
- Clip on mullions or applied glazing bars should be avoided where possible. Where clip or glazing bars are used, integral spacers in the double-glazed unit are to be incorporated in a colour to match the window frame.
- Glazing with stick on lead strips are not acceptable.

Roofs

- Roofs on the Isles of Scilly are characterized by a limited palette of materials, simple forms and details. These are essential features of the roofscape and the palette should be limited to materials that are traditional to the Isles of Scilly as follows such as slate and clay roof tiles. Concrete plain tiles or interlocking tiles are not permitted.
- Materials samples must be submitted to the Planning Department for approval.
- Roofs should be simple in form and symmetrical.
- Gables must have a simple design.
- Roof overhangs and thickness should be kept to a minimum
- Roof-top solar collectors, such as solar panels or photovoltaic cells, must be incorporated into the roofscape wherever possible but they must be positioned to mitigate visual impact.

Eaves Details

- Eaves must be simple in design and not decorative.
- Eaves must generally not extend any further than 300mm from the external envelope of the building.
- Eaves generally must be constructed with no or minimal exposed timber boxing. Rafter ends are acceptable.
- UPVC and other manmade materials are not acceptable.

Close Clipped Eaves

- Eaves should be closed with just a rake board, clipped tight against the building, no soffit boards.
- Underside of gutter must be placed at rake board level and not below.

Open Rafter Eaves

- Exposed rafters must be made of timber.
- Installation of fake rafter ends for decorative purposes only will not be permitted.
- The wall finish must either carry on to the under-eaves or a rake board may be inserted between the rafter ends.









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Verges

- Verges generally should be simple with the wall finish taken up to the underside of the roof. Slates or tiles should project between 35–50 mm.
- Slate verges may be used where appropriate.
- Projecting timber bargeboards, for reasons on maintenance, may be used occasionally; if used they must be: simple painted white, cream, black or classic dark tones.
- Timber boards must have a regular maintenance plan in place.
- The use of UPVC or any other manmade material will not be acceptable in place of timber bargeboards.

Ridges

Ridges shall be finished with either angled, half round or hogback clay ridge tiles. Where used with slate roofing these shall be generally be black, although warm orange tiles will be permitted on some buildings. Where used with clay roofing tiles these shall be the same colour as the main roof. Lead roll ridges will be permitted on slate roofs.

Valleys

To slate roofs valleys shall be constructed of lead. To clay tiles roofs valleys may be constructed of either lead or clay valley tiles.









Slate Roofs

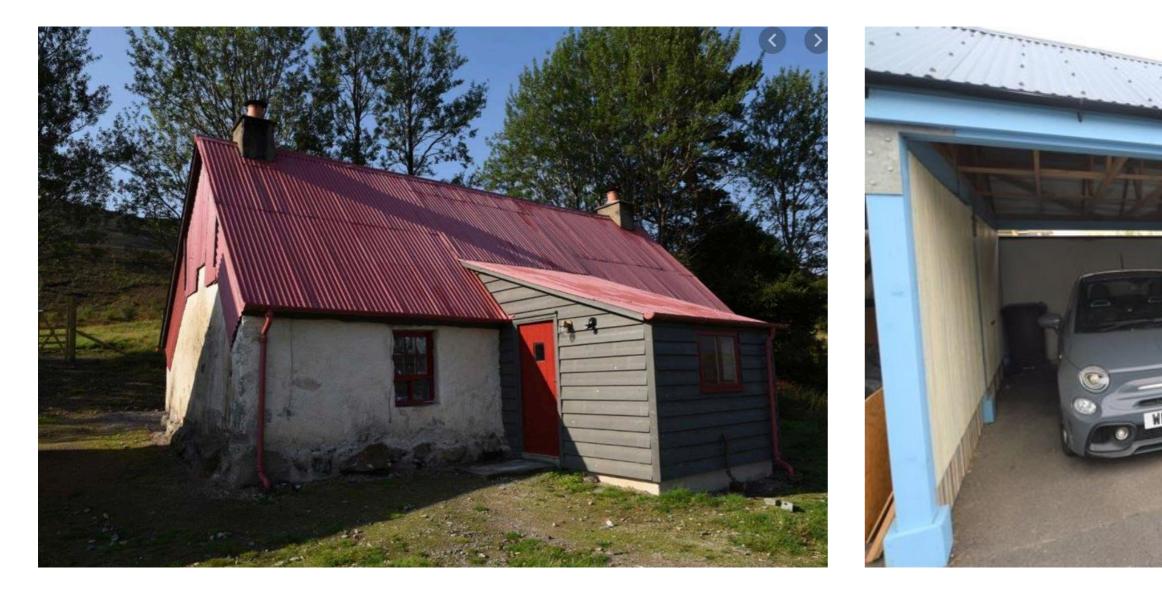
- Natural slate with a rough edge should be specified.Mid/pale grey slates from local quarries from the mainland should be used wherever possible.
- Slate clips should be avoided by double nailing.
- Slates must not be cut to less than 150mm wide.
- Slates in any one course are to be of the same thickness to prevent kicking slates or unsightly gaps.





Corrugated Roofs

- Corrugated metal roofing material is found on many agricultural buildings and outbuildings.
- This material may be a suitable alternative depending on the situation and should only be used on subservient elements like small sheds, garages or covered car parking.



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Chimneys

- Chimneys are integral components of traditional houses on the Isles of Scilly.
- The majority of chimneys on dwellings are of a simple design, traditionally sitting on the gable end of a building. Chimneys tend to be made of stone, render or brick with a corbel detail at the top and finished with a slate or terracotta pot.
- Every dwelling must have at least one Class 1 chimney.
- Chimney stacks may be used to disguise a ventilation system within.
- Chimneys should usually be placed on the gable-end of the building unless on a terrace where it should be located on the party wall.
- Smaller houses should generally have short and squat chimneys with a very simple corbel and pot.
- Chimneys should complement the façade finish.
- Chimney pots are available in a variety of forms and those used should reflect this variety but remain simple in design. Generally pots will be made of terracotta











Dormers

- Dormer windows are seen in later buildings from the 19th Century onwards.
- They must be in proportion and subservient to the main roof.





Rooflights

• Rooflights are to be 'flush' with the roof surface and be of a suitable scale.

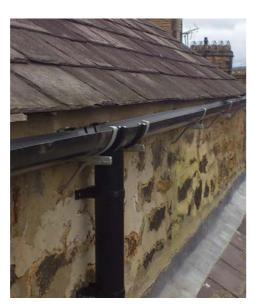


Rainwater Goods and Plumbing

- Rainwater goods shall generally be in cast iron, zinc or aluminium painted black, white, cream or classic dark tones..
- Gutters shall generally be half round or ogee profile.
- Plastic uPVC gutters will not be allowed.
- On buildings without fascia boards it is recommended that 'rise and fall' or 'rafter and gutter' support brackets are used.
- Flue terminal and extract ventilation terminals will not be permitted in walling on front elevations, or elevations facing public areas.
- Vent stacks should be enclosed within a chimney. Where this is not practical, vent pipes should be clad in lead where they emerge above the roof slopes or should be terminated within the roof space by an air admittance valve where accepted by Building Control.



Swan neck gutter on rafter brackets



Rise and fall gutter



Plastic gutters are not acceptable.





Renewables

Definition of Sustainability

The ability to meet the needs of the present without damaging the ability of future generations to provide for themselves. When a process is sustainable, it can be carried out over and over without negative environmental effects or impossibly high costs to anyone involved.

Sustainable Development: a process of change in which exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with the future as well as present needs.

Sustainable design principles

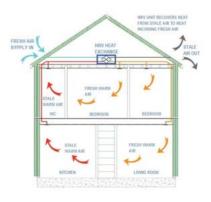
Efficient and responsible use of resources - water management (meters, low water use appliances and sanitaryware); rainwater and/or grey water systems; sustainable drainage

- Improved building performance beyond the building regs high level of insulation, double glazed windows, mechanical heat recovery and ventilation, minimising cold bridges.
- Optimising natural daylight and thermal gain.
- Energy efficient systems and appliances.
- Air tight external envelope draught free to reduce heat loss
- Ventilation options include: having opening windows; local timed mechanical ventilation; passive stack ventilation; mechanical supply ventilation; whole house mechanical ventilation with heat recovery providing both supply and extract in one system and chimneys.
- Low carbon energy generation either communal or individual- air source heat; solar hot water; photovoltaics;
- Monitor energy consumption post occupation
- Sign up to Green Energy Providers
- Smart meters
- The storm water run-off system from the Development through the SUDS system will be designed to ensure that the new housing does not increase run-off from undeveloped land and for redevelopment to reduce run off.









Integrated Services

A common trench containing services, utilities and water should be provided wherever possible in accordance with best practice for future proofing service installations within each plot.

Generally, all services wherever possible must be underground and suitable manholes must be provided for access points.

- All meter housings must be concealed in a chamber or recessed into walls.
- Meter boxes, air extractors and rooftop solar must not be visible from the street.
- No waste or soil pipes may be attached to the exterior of any building. Combined internal drainage systems are to be used.
- There will be no flue terminals, balanced flues, extract ventilation terminals, vents, exposed stacks or other plumbing pipes except rainwater pipes visible on front elevations, or elevations facing public areas.
- Generally external individual television aerials, satellite dishes or any other radio or television receiving devices are not permitted externally but can be accommodated within roof spaces.
- Vent stacks must be enclosed within chimneys where possible, otherwise vent pipes must be clad in lead where they emerge above roof slopes, or should be terminated within the roof space by an air admittance valve wherever acceptable to Building Control or the Council.

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Plastic meter housings must match the colour of surrounding material as much as possible but not be visible from the front of the property.



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Landscape Boundaries

- A key characteristic of the islands is the way buildings integrate with the landscape. The boundary to a property provides the linking element between the dwelling and its surroundings.
- A typical boundary treatment is a local stonewall softened by planting or an informal hedge.
- Hedging and trees provide shelter from prevailing winds and help to soften or screen a property.
- There are not many native trees on the Isles of Scilly but Elm, Elder, Hawthorn and some Grey Sallow are evident.
- The use of Pittosporum, Ragwort, Escallonia, Euonymus and Veronica to form informal hedges is a distinctive feature of the islands and should be encouraged.
- All hedging & planting must be from a certified UK provenance source.
- Robust treated timber post and rail stock fencing is acceptable when used in conjunction with native hedge planting. •
- Panelled fencing is not acceptable.



Fences

- Fences may occasionally be used, although stonewalls and Cornish hedges are preferable. Picket fences would be appropriate and can be painted white or left unfinished.
- Close boarded fences are acceptable in rear gardens. •
- Post and rail fences 1.0 metres high, may be used to define boundaries between building plots in front or rear gardens.

Railings

- Railings dividing buildings plots in front gardens will be metal
- All railings will be 1.1m high maximum and will be painted black or a dark colour blue or green. ٠
- Railings will not be used for more than 25 metres in any single length of frontage

Gates

- Garden gate and pergola piers should be no less than 450mm wide. Where heavy gates are to be hung on hinges, they should be in stone blocks built into the piers
- Garden gates shall be built of painted timber, mild steel or wrought iron ٠

Copings

• Coping stones to finish a wall up-stand or to close a cavity must be made of natural stone. Careful detailing, water runoff, appropriate proportions and overhangs must be carefully designed.



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Extensions

Extensions include any types of additions to the main building that create further space. It is anticipated that extensions may be permissible under Permitted Development Rights. The effects of the extension on neighbouring properties and the impact on the integrity of the existing building and surrounding dwellings within the streetscape must be carefully considered. Each Plot Passport will define the extent of development, however in the absence of any other control:

- Any extension must be respectful and subordinate to the parent building in terms of style and design, scale, siting, materials and finishes, complementing not competing with its presence in its surrounding.
- An extension must not detract from the quality of the existing building and must be architecturally attractive in its own right.
- Simple forms must be achieved and it must be constructed from good quality, natural materials.
- Extensions in excess of 25% of the volume of the original building would likely prove to be visually unacceptable.
- Development above the existing roof line will not be allowed.
- The pitch and form of an extension must match that of the existing roof, except where it forms a subservient roof when it can be of a lower pitch.
- Eaves heights of extensions must either match or be lower than the existing eaves.
- A rear roof terminating at a similar or equivalent height as the existing roof must be no greater in length than 50% of the depth of the original building.
- Flat roofs are unacceptable except for modest, single storey extensions.
- There is a general presumption against extensions that project beyond the front building line. Modest porches may be acceptable where they do not detract from the design of the original building.
- Extensions into the roof space make the most of a building's volume and will generally be encouraged. Great care must be taken to ensure that the design of dormers and roof lights are sympathetic to the original building.
- The form, materials and detailing of the extension must match those of the existing building.
- The position and design of a proposed extension must not be detrimental to the ability of neighbours to add similar or equivalent extensions.
- All extensions and alterations will be required to meet the provisions of daylighting, sunlight and privacy guidelines.
- Any extension must retain a reasonable proportion of private external amenity space and must not occupy more than one third of the applicant's original rear garden area.
- The use of sustainably sourced, long lasting materials, being locally sourced, with the potential for later recycling must be considered.



Conservatories

Conservatories must be single storey and of a modest size in relation to the ground floor of the house. They must not be complex or overly elaborate in design and must have their windows and other elements in proportion to each other and to the main building. Conservatories will not normally be permitted on principal elevations, although this may be acceptable when concealed behind the property boundary wall.

Conservatories are to be made of timber and painted white or very neutral tones. Natural hardwoods such as oak can be left untreated but all softwoods must have some form of opaque finish. uPVC structures are not allowed.

Conservatories which form an extension or part thereof should also comply with the requirements for extensions as noted above.



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Bin stores & Recycling Bins

- Bin stores should be located at the rear or sides of houses and generally out of sight.
- Communal bin stores may be appropriate subject to the site landscape strategy and refuse arrangements, however this should be fully integrated into the landscape design.
- Bin stores & recycling bins must not be exposed on front elevations.



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Sustainable Design Principles

Efficient and Responsible Use of Resources

Water Management

The efficient supply and use of potable water, coupled with sustainable techniques for disposal of waste water are all important considerations for the development at Old Town.

Water Efficiency

The use of water should be minimised by the careful selection of sanitary ware and appliances to ensure that they meet the standards of low water use. All buildings should utilise dual flush toilets and efficient taps and showers. If possible, water meters should be installed in all houses. This will enable occupants to make money savings as a result of the water saving measures installed.

Rainwater and Grey Water Systems

Rainwater harvesting and recycling is an integral component in achieving efficient water management. Subject to a detailed appraisal and design, dwellings should aim for 70% of the water for flushing toilets to be supplied from roof water, together with the water for the irrigation of gardens and landscaped areas generally within the site. It is anticipated that this will form part of a site wide infrastructure design for water management and sustainable drainage.

Similarly, grey water recycling is a technology that could be used instead of rainwater collection if wished and should be considered as part of any site wide design.

Sustainable Drainage Systems

The drainage infrastructure for the site will be designed to appropriate Environment Agency and local water authority guidelines. The design strategy developed to date ensures that the new development does not increase surface water run-off from undeveloped areas and that it is reduced in developed areas.

A sustainable approach to regulating storm water is to be adopted within the site and this will be based upon best practice and aims to utilise the principles of Sustainable Urban Drainage Systems (SUDS) incorporating the existing pond as a catchment area to collect and attenuate the discharge of surface water.

Porous paving materials could also be used wherever possible to enable stormwater to percolate into the ground, further reducing the volume of run-off.



Landscape & Ecology

Site Landscape Design

- The site plan will set the framework for the hard and soft landscape design.
- The landscape design should respond to the character of the surrounding countryside and areas of settlement.
- The landscape design should reinforce the built form and open spaces contextually and create a cohesive environment reflecting the collective aspiration of its inhabitants.
- Open space should be clearly defined and the landscape treatment must relate to its function.
- Sustainable principles should inform the landscape design, its implementation and use.
- Site permeability should be encouraged, integrating cycle and pedestrian movement.
- Full accessibility should be integrated in the design of external spaces.
- Where appropriate shading should be provided to help prevent any summertime overheating.
- A hard and soft landscape strategy should be prepared by a specialist Landscape Architect.
- Trees and planting species will be carefully selected, suited to location, use and maintenance of the spaces.
- Structural planting will generally be native species. Plants, where possible, should be sourced locally.
- All planting, new and retained, is to be protected throughout the construction of the site.
- Habitats that have been identified will require stringent protection during the construction phase of the development. Any works to be carried out in any of these areas should be timed to minimise any disturbance to wildlife.
- A site wide Sustainable Urban Drainage Systems (SUDS) strategy shall be developed incorporating the pond to collect and attenuate the discharge of surface water.
- A long-term management strategy shall be prepared to conserve and enhance the quality of the external hard and soft landscaped areas.

Hard Landscaping

- All hard landscaping and surface materials should comprise a co-ordinated limited palette of materials will enable different areas of responsibility to be distinguished and enhance the legibility.
- It is understood that generally a soft approach to landscaping is preferred, however secondary roads are likely to be adopted and finish may be governed by highways.
- Roads should be edged by rough surfaced granite kerbs and will have dropped kerb details at junctions with access points to rear courts or individual properties.
- Paths must comply with the requirements of the Disability Discrimination Act.



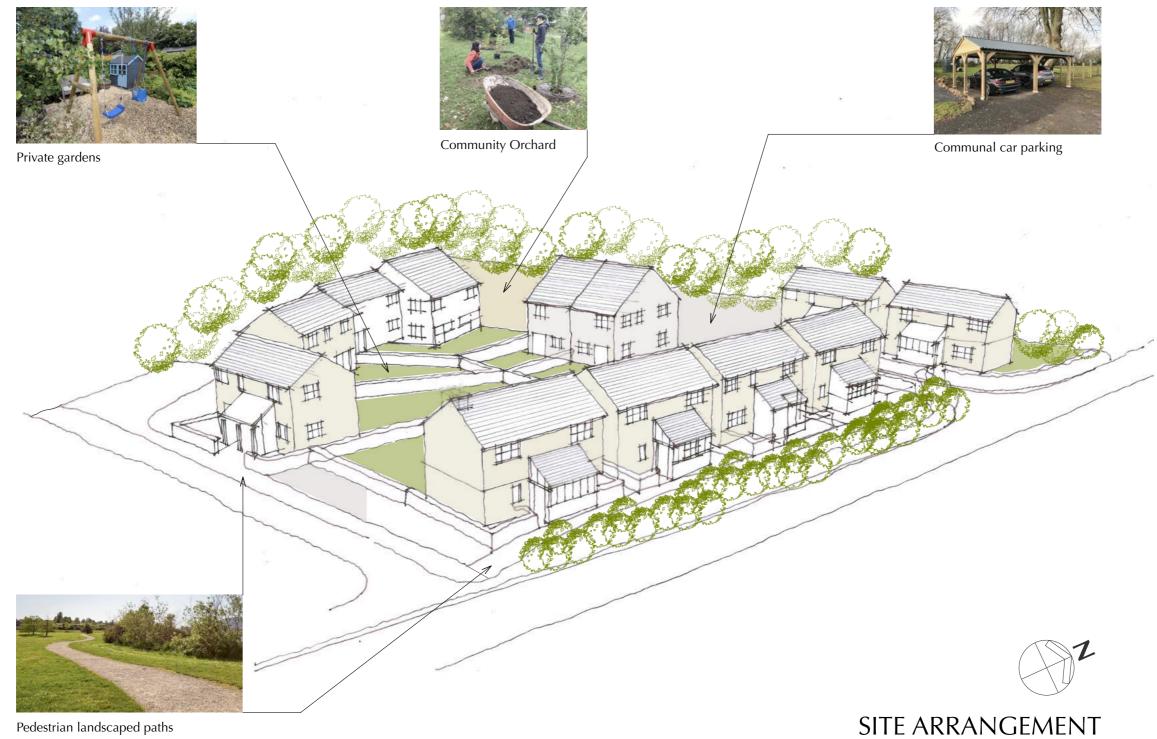
Landscape & Ecology

External Lighting

- The street lighting shall be selected from a range of fittings approved by the Duchy of Cornwall
- The site landscape design shall be reinforced by the choice of lights and height of lights. Street lighting columns shall be low level or wall mounted on more remote areas. •
- The fitting type should be selected to reduce their impact on the environment in the form of light pollution.
- Fittings should be shielded or hooded to minimize sky glow by controlling upward light spillage and to avoid pedestrian glare. ٠
- Lamp sizes and spacing of fittings will be designed to provide adequate illumination without over-lighting.
- Column heights will be restricted to 4m generally.
- Wall mounted light fittings should be used wherever possible away from the main routes to minimize clutter of the public realm. Their locations should be carefully selected in relation to window openings to ensure light ٠ pollution does not create a problem to residents.
- Ceramic Discharge Metal Halide lamps should be utilised as far as possible, particularly on and around buildings to ensure that the resultant white light does not pollute the colours of materials.
- If High Pressure Sodium lights are used, these should be restricted to public open space areas.



Outline Proposals









EAST ELEVATION I



WEST ELEVATION 2

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1



type E

type E

type A/B

type E

EAST ELEVATION 3

boundary walls omitted for clarity

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WEST ELEVATION 4

showing stone wall boundary features with gates & planting

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