

ORKNEY RESEARCH CAMPUS

Stromness

Development Brief: July 2014



Fig. 1 Aerial view of the site

Introduction

The site comprises the existing EMEC/Heriot Watt campus (formerly Stromness Academy), the adjacent public car park, the former glebe field to the south of the former academy and the former Stromness Primary School and playground to the NE. It is intended that this site will continue to develop to form a Research Campus for the above and following associated uses:

- increase capacity for prototype testing and monitoring,
- create business space for associated enterprises,
- provide office space,
- provide incubator units,
- offer accommodation for researchers and visitors.
- Possible student accommodation
- Provide workshop space for research and community groups.

This development brief identifies the development opportunities and constraints for the above site and framed in the context of the Orkney Local Development Plan and the Stromness Urban Design Framework (SUDF).

Policy Background and Context

In the Local Development Plan the site is identified as SB06 (former Primary School Site) and SB07 (former Academy Site) for Business, Industrial and mixed use and accessed off Franklin Road and Back Road respectively.

Both sites are out with the Stromness Conservation Area with the exception of the SE boundary wall to the Primary School site where the stone wall itself is within the Conservation Area.

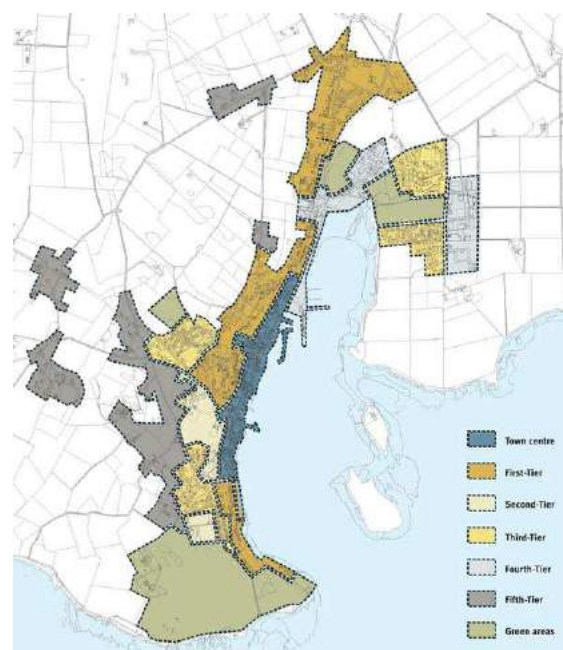
None of the buildings and structures on both sites (with the exception of the above) are listed. However the 3 stone elements of the former Academy i.e. the 1896, 1904 and 1912 wings are important in townscape terms and will be considered as “locally listable”. This means that retention and reuse of these elements will be encouraged.

In terms of the Stromness Urban Design Framework (SUDF) the site is identified as falling within the Tier 1 area located on the hillside above the Historic town core and consisting of residential or larger institutional uses closely tied to the Town Centre by a series of narrow lanes and footpaths. The area is characterised by structures while developed less intensively than the Town Centre, still retain the historic character of Stromness.

The SUDF Policy PO2 that applies to the site, which should be taken into consideration includes:

- do not exceed two and a half storeys in height and should preferably be shallow plan wide frontage in form with a pitched roof

- consider new uses which might support activity and vitality in the adjacent historic core rather than detract from it
- encourage use of natural sustainable materials throughout
- work with the landscape and topography rather than against it
- encourage the design of buildings for future changes of use without significant change to the building itself
- maintain pedestrian links to the historic core
- new development should take advantage of views to the surrounding countryside while making a modest impact on the landscape



Top Fig.2 View of Stromness from ferry
Above Fig. 3 Tier area diagram; source SUDF

Guidance to Applicants

The Development Brief sets out planning and design principles to lead the design process for future development phases of the site. Applicants will be required to demonstrate that their proposals respond to the Development Brief Strategy and the more detailed Design Criteria set out in this Development Brief and the SUDF.

The level of information required in each design statement will vary depending on the scale of development proposed. Clarification should be sought from the planning department at the pre-application stage on the level of information that will be required. The content of this Brief should be considered in conjunction with appropriate planning guidance given at local and national level and with the conditions set out any tender documentation that might be issued for individual parts of the site.

Where appropriate the Design Statement should include:

- Site and area appraisal
- Identifying the design principles
- Analysis
- Design concept/s
- Design solution

Further information on Design Statements can be found on P73 of the Stromness Urban Design Framework (SUDF) and in OIC's



Development Briefs and Design Statements Supplementary Guidance.

Site Description

History

Generally the sites sit on the 19th century edge of the town at the point where the tight urban grain becomes a less dense suburban layout more or less defined by Franklin Road. Stromness Academy Site was originally opened in 1875 as the Stromness Public School to replace an earlier school in Manse Lane. The original school was built to the West half of the site and the 1880 OS shows two buildings presumably the larger being the schoolmasters house. The school, like the town enjoyed a period of rapid expansion, in the late 19th century reflected in 3 blocks added to the town side of the school in 1896, 1904 and 1912. The original core of the school to the rear of these blocks was then replaced by the main block backing onto Back Road in 1937 when the school became known as Stromness Academy.

With the building of the new Stromness Academy in 1988 in the Garson District the former Academy was retained as a Community Centre and latterly EMEC, Heriot Watt, ICIT, OIC offices and others. At this time the access was improved off Back Road and the former playground utilised as a public car park.



Left Fig. 4 Stromness 1980's
Above Fig. 5 Stromness 1931



Fig. 6 Stromness Map 1882



Fig. 7 Stromness Map 1902

Vacant land to the south west of the former Academy site is currently laid to rough grass and was probably originally part of the glebe to the former 1814 parish church (now the community centre). More recently the land was occupied by temporary accommodation/huts.

To the NE the former Primary School was built in 1970, on land formerly back lands and gardens to properties fronting Victoria Street. Designed in a modernist style with a distinctive 2 storey curtain wall sitting on a stone plinth facing the town the building has subsequently been altered and extended to the Franklin Road side including the addition of a nursery school. The school playground also incorporates land to the other side of Bank Lane to the NE. The School moved out in 2013 to new premises close to the new Academy and the building is currently unoccupied.



Top Fig. 8 Middle locally listable building
Above Fig. 9 Looking North from courtyard space

Analysis of key buildings

The former academy site features prominently in the Stromness Townscape comprising of 3 similarly scaled late 19th/early 20th century stone buildings facing out towards Scapa Flow. They enliven the skyline and provide a suitable foil to the historic town core below. They comprise the following:

- Northernmost block (1912), natural random coursed stone, 2 storey, 2 bays (upper level with gabled dormers), with off centre gabled porch. Stair wing to rear. Locally listable.
- Middle Block (1904), natural random coursed stone, 2 storey, 4 bays (upper level with gablets above windows, arched windows to side elevation. Locally listable.
- Southernmost Block (1896), natural coursed stone, 2 storey (ground floor part undercroft) with tripartite window to gabled principal elevation and Hammerbeam ceiling internally.



Top Fig.10 Elevation to Back Road
Above Fig. 11 Most Northern locally listable building

The Former Primary School (1970) is located below the Former Academy and is partially hidden by the bulk of the 19th century mass of the Stromness Hotel when viewed from the Harbour area. It's a 2 storey curtain walled classroom block on a stone lower ground floor plinth with glazed stairs to its ends and much altered single storey accommodation facing Franklin Road. The curtain walling is the most prominent element of this building and seems at odds with the rest of the townscape, this is exacerbated by an applied reflective film to the dated curtain walling and the flat roof (which is very visible from above). Whilst not eligible for inclusion on the Local List, retention and adaption of the former Primary School to realise its full potential would be an option.

The site is located on the East flank of steeply rising ground above the historic core of Stromness typified by a waterfront foil of gables and back lands of houses and churches rising up the brae behind.

The site has a steep fall to the South East of approximately 8 to 10m on the main Academy Site and a further 5m on the former Primary school site.

The sites are approximately 25m above sea level with the rising ground of the Brinkies Brae (94m) and Sandy Hill (78m) giving a backdrop to town and site behind.



Fig. 12 Topography Diagram

Topography

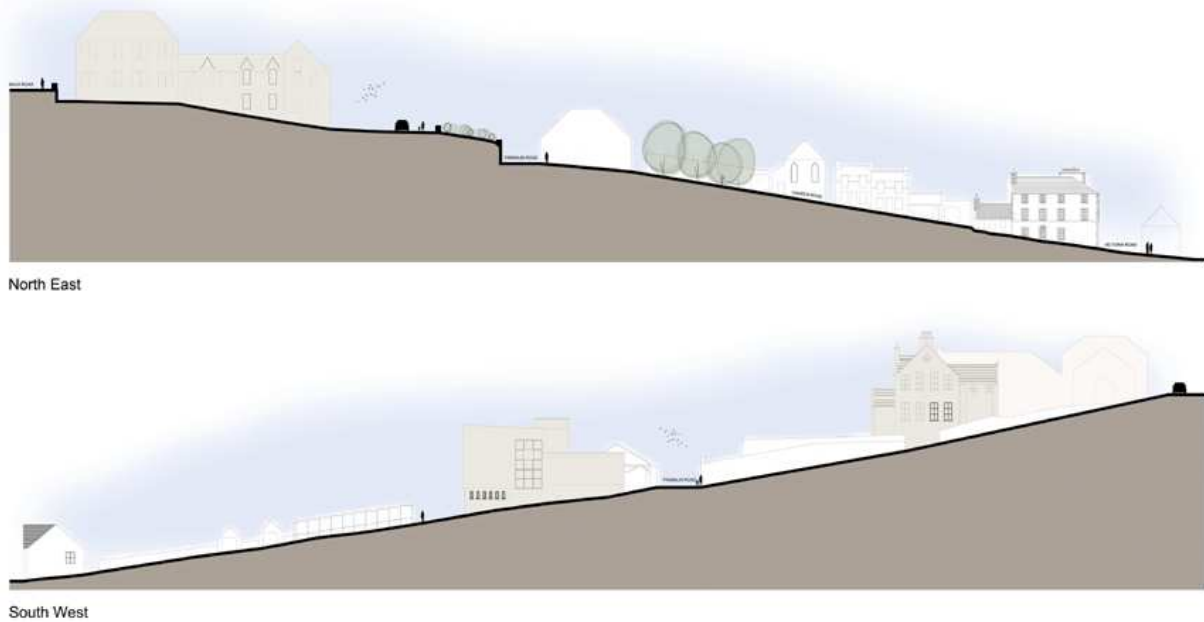


Fig. 13 Site Sections

Any design solution should work positively with the site fall to help generate the design solution and should also carefully consider the roofscape which will be highly visible from the parts of Stromness above the site.



Above Top Fig. 14 View of Stromness
 Above Fig. 15 Aerial view of Stromness

Bats can be found in new and old buildings and in a range of other structures. Although not common in Orkney, they have been recorded around this site in the past. A bat survey may therefore be required prior to the determination of any planning application on the site as all bats are European Protected Species and the law protects them and their roosts. Policy N3 Protected Species within the Local Development Plan aims to safeguard habitats and species protected under British and European law.

Landscape Setting

Stromness is significantly located at the centre of the Hoy and West Mainland National Scenic Area (SNA). Any development must consider the potential impacts on the special qualities of the area outlined as:

- A palimpsest of geology, topography, archaeology and land use.
- An archaeological landscape of World Heritage Status.
- The spectacular coastal scenery.
- Sandstone and flagstone as an essence of Orkney.
- A long-settled and productive land sea.

- The contrast between the fertile farmland and the unimproved moorland.
- A landscape of contrasting curves and lines.
- Land and water in constantly changing combinations under the open sky.
- The high hills of Hoy.
- The townscape of Stromness, its setting and its link with the sea.
- The traditional buildings and crofting patterns of Rackwick.

Views

As a general point, the site is located within the Hoy and West Mainland NSA which notes the townscape of Stromness, its setting and its link with the sea. Views, primarily inwards of the site, are especially sensitive and important.

- Given the nature of the site there are stunning views to the SE over the top of the town across Scapa Flow and oblique views to the hills of hoy. This also means the site is very prominently placed above the town centre and will be one of the first views of Orkney for visitors arriving on the Scrabster-Stromness Ferry.

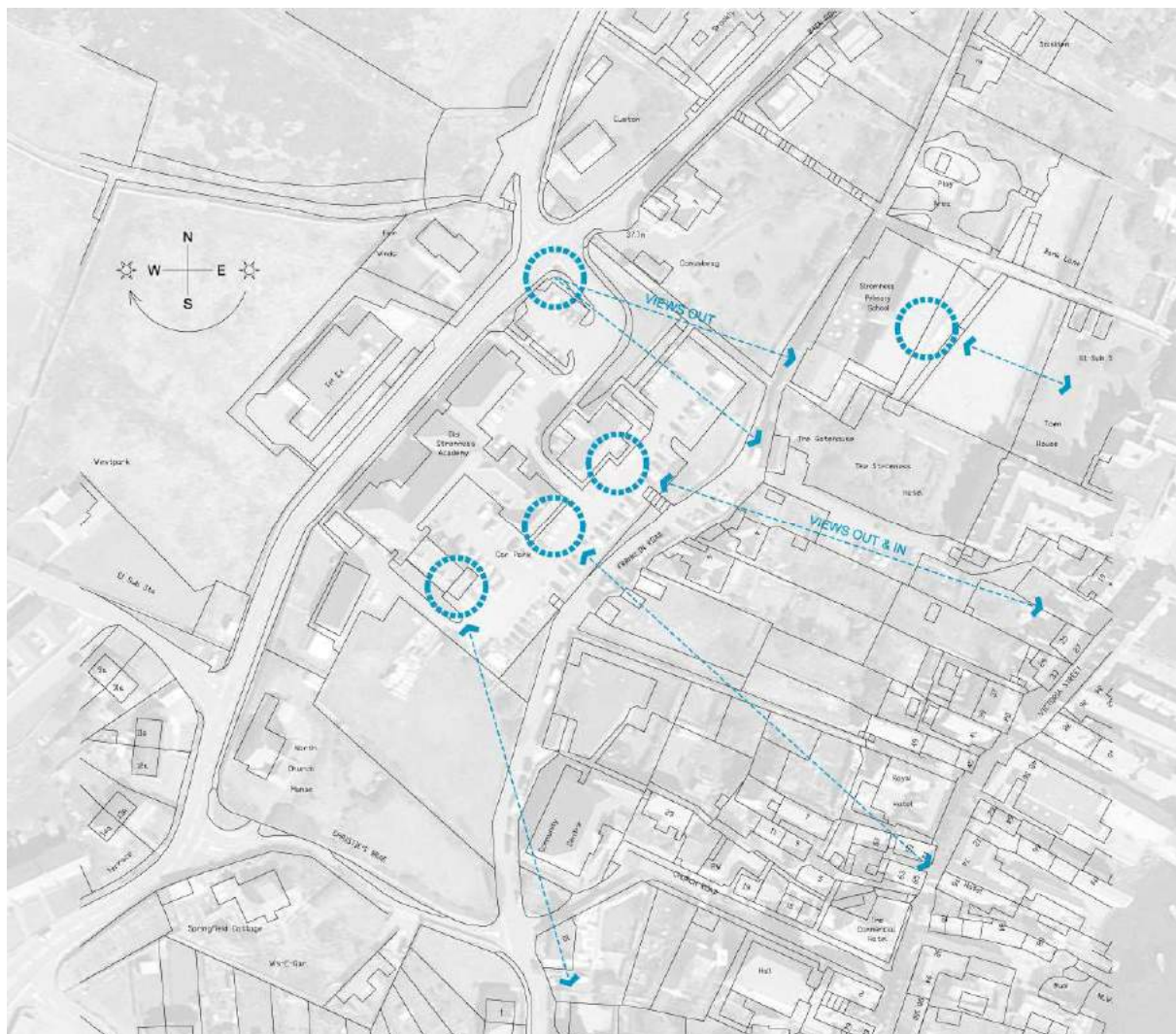


Fig. 16 View Diagram

- Glimpsed views from the closes and streets of the historic town also need careful consideration.
- It should also be noted that due to rigours of climate, trees play limited role in screening or framing views.

Services

Generally, developers would need to satisfy themselves in terms of capacity, condition and exact position of services.

- Water records indicate mains water running along the former academy side of Back road.
- Power utility records indicate an Electricity main running along Back Road from the 500KVA substation located opposite the site. There is a spur from this travers the site adjacent to the former sciences block and a second spur running down the close to the North to the former Primary School.
- Telecom records indicate BT lines in Back Road, there is also a BT exchange opposite the site on Back Road.
- Drainage – Water Resource Management. As per the Addendum to the Strategic Flood Risk Assessment the site is out with the flood zone and is not deemed to be at risk of flooding. Surface water from any new development/parking should be treated by SUDs, complying with the requirements of PAN61, Planning and Sustainable Urban Drainage Systems, and with good practice guidance such as the SUDS Manual and SUDS for Roads. An existing Scottish Water sewer crosses the site from Back Road down to Franklin Road in a line just to the North East of the former Sciences block from there it is routed along Franklin Road towards the Primary School and then down Bank Lane.

- Waste and re-cycle management should be considered at an early stage in the planning process and should be addressed within any planning application.

Scottish Water have recommend that a Pre Development Enquiry Form (this can be downloaded from their website, www.scottishwater.co.uk) be completed by the developer and submitted to their Customer Connections Team to ensure early engagement in the development process.

Sustainability

- Proposals for the campus should investigate the possibility of incorporating innovative forms of renewable energy and power generation whilst being sympathetic to the special qualities of the Hoy and West Mainland NSA and the buildings and character of the nearby conservation area.
- Materials should where possible be natural and locally sourced.
- New Buildings should where possible use passive methods for cooling and heating.
- Developers are encouraged to conform to higher standards such as Passive House for new builds and EnerPHit for Refurbishment.

Climate

Given the location on the East flank of Brinkies Brae/Sandy Hill the site is very open to the East, North and South West while the hills behind will give some shelter from the West and North West.

This same local topography will also screen low sun from the West in the evening and winter afternoons. Given the exposed nature of the sites every opportunity should be made to use the building massing and layout to enhance shelter and encourage localised micro-climates.

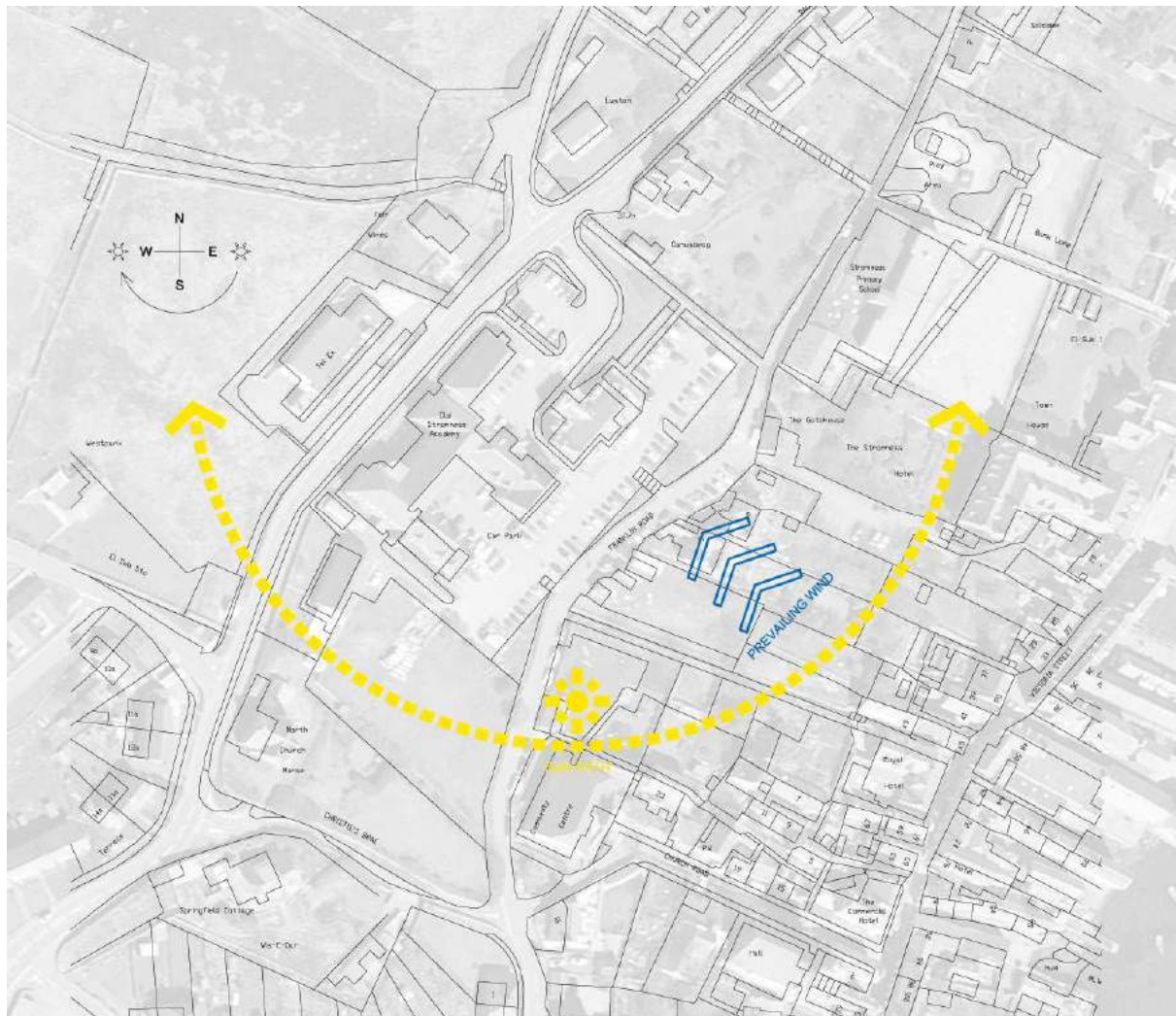


Fig. 17 Climate Diagram

Boundaries and edges

Generally the boundary walls are a mix of mostly rubble natural stone walls/retaining walls incorporating the occasional larger Stromness boulder and with squared rag stone coping mostly bedded in mortar. Stone steps giving access from Franklin road up to the car park/former playground are terminated in simple dressed stone pillars. Any repairs and renewal of this wall will need to match the existing stonework and mortar and should preferably be in salvaged stone and not include any exposed cut stones.

Existing boundary wall to the South between field and former manse is wet dashed brick with precast coping, where prominently placed in any future development, this wall should be screened or over clad in natural stone.

Boundary wall to Back Road is a mix of random rubble with boulder coping, railings to the rear of the school and random rubble with squared stone copings. The former school gates with cement work pillars form the main site pedestrian access from Back Road. Any alterations to this boundary should match the existing walls and materials. The former school gates should, if possible, be retained.

The existing vehicular access is currently visually poor and includes a mix of inappropriate materials, such as metal crash barrier and tubular metal pedestrian barrier and poor signage. Any works in this area should seek to remove inappropriate elements and materials and form a more cohesive and better quality gateway to the site in natural materials. Any new access points to the site should also reflect this approach.

In general any new boundaries and edges to the development must contribute to the nature and quality of external spaces, and to the coherence of the development site as a whole.

Massing

The existing buildings in Stromness are a remarkably consistent mix of late 18th and 19th century properties ranging from gabled and 1½ to 3 storey domestic properties with pitched roofs around 38 degree pitch and a building depth of 5m to 7m. The notable exceptions to this are the Stromness Hotel and the former academy buildings which have a deeper plan of around 10m resulting in a larger roof.

Successful contemporary buildings such as the Pier Arts Centre have similar massing to the surrounding properties but give it a modern twist with materials and fenestration.

The existing buildings on site are all mostly 2 storey with, on average, a ground to eaves height of up to 8m. This would equate to approximately 2 storeys with localised areas of 3 storeys (due to the site fall) being permitted.



Fig. 21 Pier Art Centre

The existing townscape has buildings running up the slope at right angles to the contour lines, this is one of the strong townscape features of Stromness. However both the Primary and former Academy site also have buildings following the contours, indeed it could be argued that this allows the existing buildings to act as a foil to the townscape when viewed from the seaward direction. Therefore a massing solution allowing buildings to follow or be at right angles to the natural contours would be considered equally permissible.

Any site development should treat the site as a cluster of buildings not one large building, this will have advantages in terms of allowing the meaningful retention of existing buildings, achieve an appropriate scale, allow flexibility and permit a phased approach to the site development.

While pitched roofs would be preferable in townscape terms it is recognised that any new building with an office/teaching function will in all likelihood have a deeper plan than the surrounding context, applying a pitched roof

to a deep plan could lead to an excessively high roof, which is to be avoided.

Open space and landscaping

Much of the Former Academy site will consist of hard landscaping while there is opportunity for softer landscaping to the former Primary school site.

Soft Landscaping should encourage biodiversity and use species indigenous to Orkney. More details and advice on this can be obtained from the OIC Environmental Planner.

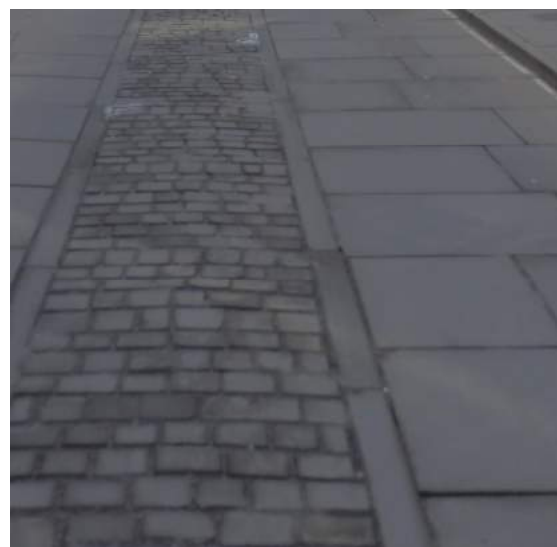
An outdoor seating or picnic area within a sheltered portion of the softer landscaping on the former primary school site will be provided. The area will serve users of the campus and members of the public and the inclusion of local art or a sculpture trail in this area would be supported.

Hard landscaping should use where possible natural materials and follow the principles established by the recent streetscape improvements in the town centre. Hard landscaping should be used to highlight important nodes such as entrance areas and public routes to, from and across the site.



Above Fig. 22 Shared surface street Stromness

Left Fig. 23 High quality hard landscaping Stromness



Materials, colour and lighting

The existing townscape is a blend of a few natural materials primarily stone, render and slate.

New materials should likewise comprise a limited palette and should be applied consistently to all new campus buildings to reinforce identity and sense of place. While not wishing to be prescriptive recent interventions such as the Pier Arts Centre and the soon to be completed new library have been clad in a mix of glass and standing seam metal cladding. This has been successful in terms of townscape and weathering. Generally materials should tend to be mid to dark in tone and muted in colour while allowing for limited areas of strong colour. Roofs should be dark in tone and heavily tinted glass should be avoided.

Campus lighting should be high quality, consistent and minimise light pollution. Consideration should be given to entrance areas providing a welcoming building at night.



Site Access, Roads, Linkage and Parking

Roads, parking and pedestrian routes should not be conceived in isolation but as an integrated element of the overall design of the development. The Council’s standards should serve as a guide but should be flexible enough so as not to inhibit the design of an innovative, less car dominant layout, such as shared surfaces, which respects the landform and character of the area.

Upgrades and improvements to the existing road network will be required to develop the site along with the potential provision of additional infrastructure. This may include junction improvements, road widening and footpath, footway and cycle upgrade or provision. Other requirements may be identified as the design progresses. Any alterations to existing on-street parking or traffic restrictions will require changes to current Traffic regulation Orders. The requirements for this process can be time consuming and should be built into developers programming.



Fig. 24 Material Palette

The developer will be required to provide a Traffic Assessment in support of any application for planning permission which should include for vehicular, pedestrian and cycle traffic and take into consideration all phases of the development site, in order to identify the impact on the existing road network and transport infrastructure.

- Vehicle and some pedestrian access is primarily by Back Road a local distributor that services the South end of the town and the hinterland to the West. Back Road in turn connects back to North End Road which becomes the A965 Stromness to Kirkwall Road.
- Any new access to the old academy site from Back Road can only be formed immediately to the South of the main block due to issues with visibility splays.
- It is assumed due to carriageway widths and level differences that access to the old academy site will not be possible from Franklin Road.
- The former Primary School site is accessed by Franklin Road. Given its location at the end of this road any proposals for the primary school should consider how service and visitor vehicles can safely turn round at this point. It is suggested that this turning area be a shared surface and possibly be combined with the main entrance to any reconfigured/replacement building.
- The parking on the site will serve both the campus needs plus act as a public car park for the adjacent Community Centre and the nearby town centre. With limited space for vehicles in the historic core, high-quality, attractive pedestrian links between the town and campus are essential. Any proposals should seek to enhance and reinforce these connections.



Fig. 25 Shared surface street Stromness

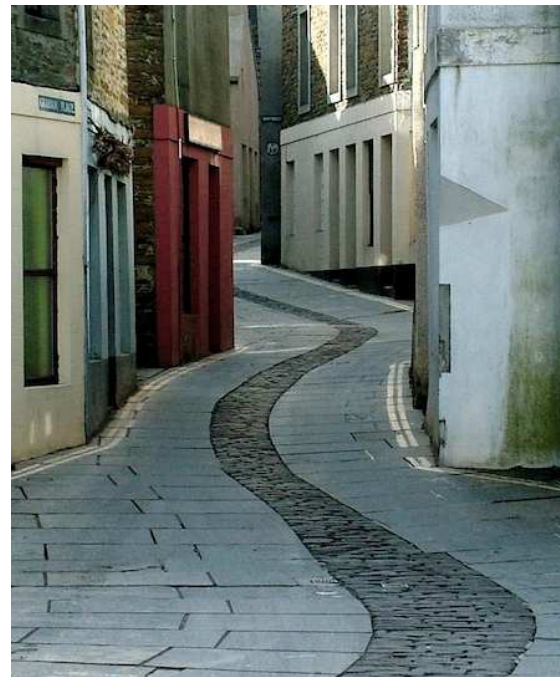


Fig. 26 Shared surface street Stromness

Given the differing nature of potential use and adjacency to the centre of town a flexible approach could be taken to parking levels.

- Given the fall across the site any additional parking (primarily identified for the field to the South), will require to be tiered in some form this will need very careful consideration in terms of landscaping and geometry to ensure a landscape sensitive solution.
- Due to the limitations of Franklin Road parking adjacent to the former Primary School should be limited to disabled parking.
- Parking layout should be straightforward and legible and routes should be reinforced by the use of different materials. Landscaping should also be maximised to provide the perception of cohesive high quality external space.
- Pedestrian routes across the site from the historic town to residential areas to the West should be encouraged.
- The installation of dedicated parking and charging facilities for electric vehicles will be encouraged and supported.

Placemaking

Reference should be made to the Council's adopted Placemaking Principles, and these should underpin the design of any new development. The Council is in the process of developing its Placemaking Strategy, which will ultimately see revisions to the Roads Development Guide 2006 as part of this process. Although this document is the current RDG, the Placemaking Principles should be considered alongside its content, and innovative, evidence based design solutions are encouraged. Reference should be made to Designing Streets.

Phasing

Each phase of the development should be designed to be finite and "self-contained" and not to rely on the campus masterplan being fully implemented to achieve the required design quality. This approach implies that the campus should be treated as a cluster of buildings not as one large monolithic building. This should ensure ongoing flexibility in terms of use, exit strategy and adaptability and be more compatible with the existing buildings and townscape context.

Further Information

For further information, please contact:

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