

OUR ISLANDS OUR DEAL



THE CAMPAIGN FOR A *REAL DEAL* FOR THE ISLANDS

Project Title:

Shetland Campus Redevelopment Project

Outline Business Case (OBC)

Version	Release Date	Change Notes
1		



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2. Executive Summary

This proposal is to create modern, high quality learning and training facilities and innovative approaches to digital and distance learning, tailored to the specific needs of the Shetland Island communities.

This will involve transforming existing spaces at the Lerwick and Scalloway campuses to both increase the attractiveness of the campuses for local students and, through the integration of new technologies, enable a greater degree of outreach to our more remote learners and island businesses. In addition, a range of mobile facilities and equipment will be established that further enable our outreach capability.

In implementing this proposal, we are aiming to enrich quality of our educational experience on offer in the Shetland Islands and deliver it directly to our wider community.

2.1 Introduction

2.1.1 Transforming the Educational Offer for the People of Shetland

This proposal seeks to secure investment of £2.0 million in order to upgrade and enhance the learning facilities of Shetland UHI and learning centres (as part of the University of the Highlands and Islands) to support the delivery of a modern curriculum that meets the expectations of a 21st century student body and the needs of our local employers, businesses, and communities.

The proposed project will improve and expand the educational offering available to the people living on Shetland, as well as the other island groups and the wider University of the Highlands and Islands area. In addition, the project will help meet the training and skills development needs of current and emerging local business sectors including renewables, decommissioning and satellite launching. In doing so, this project will contribute to economic development and inclusive growth in the islands as well as to the zero-carbon economy.



The project will leverage new facilities and technologies to make more learning opportunities available online and by distance learning to further support learners accessing material remotely. This will improve student learning experience, reduce current barriers to accessing learning (arising from location or personal circumstance, for example), and expand learning opportunities. The goals of strengthening links with schools and providing ‘learner journeys’ into college, university or the world of work will be a priority, particularly focussing on promoting and facilitating training and education in STEM subjects.

The proposed project will contribute to the delivery of a range of Strategic Plans at local, regional and national levels, including Shetland’s Partnership Plan; the Shetland UHI Strategy 2021-25; the Shetland Colleges’ Merger Business Case; the University of the Highlands and Islands Strategic Vision; the University’s Islands Strategy; Highlands and Islands Enterprises’ Strategic Vision; Colleges

Scotland's, Skills Development Scotland's and Developing the Young Workforce's aims and priorities; and the Scottish Government's STEM Strategy, National Outcomes and National Islands Plan.

2.1.2 Shetland UHI and Our Current Offering

Shetland is an island community with a population of some 23,000 people. Shetland UHI has recently been created as the new college for the islands through a merger of NAFC Marine Centre UHI, Shetland College UHI and Train Shetland. Shetland UHI provides a wide range of learning opportunities for local people, ranging from school pupils to post-graduate researchers.

Shetland UHI has two campuses – one at Gremista, Lerwick and one at Port Arthur, Scalloway – with additional learning centres established throughout Shetland.

The Islands' economy is strongly dependent on industries such as seafood (fishing, aquaculture and processing), engineering and construction, and there has been a strong emphasis on the provision of vocational training to meet the needs of these sectors. The oil industry's contribution to the local economy has declined since its peak in the 1970s and 1980s, but new industries such as oil installation decommissioning, renewable energy (both marine and onshore) and satellite launching offer significant potential for future growth and will bring their own distinctive employment and training needs.



While almost half of local employers have said that their training needs are met by local colleges, one in five employers have said that suitable staff training is not available in Shetland (2017 Employment Survey). Half of respondents to the 2018 Skills Survey said that required training was not available locally, while one in five cited cost, timing or awareness of courses as reasons for not using local providers.

Although unemployment has been relatively low in Shetland, there have recently been significant job losses (for example, closure of Scatsta airport and the Moorfield Hotel) due to changes in the Islands' economy and unemployment in the Islands more than doubled between July 2019 and June 2020. The COVID-19 pandemic has further impacted Shetland's economy, putting more than one-quarter of jobs at risk. Uncertainties around the UK leaving the EU also pose a potential threat to the Islands' economy.



Despite several piecemeal upgrades, much of the College's facilities are now ageing (circa 20 years old) and it is felt that the college campuses no longer offer an attractive teaching and learning environment to our current or prospective students. A wider discussion of the case for change is presented in section 2.2.2 but to summarise, it is felt that the campuses are poorly designed,

out-of-date and unattractive. There is generally a lack of social spaces for students and there is also a lack of dedicated spaces for collaborative or student-led learning – criticism of the student facilities is a common theme in student feedback. General (non-specialist) teaching spaces are very

traditional in their design aesthetic and do not contain facilities or technologies that are common in the modern classroom. In summary, the present facilities do not offer a fit-for-purpose educational experience required to support the delivery of a flexible, dynamic and modern curriculum. Student facilities are poor – something that is frequently brought up in student feedback – with inadequate space for self-study and very limited space for students to relax and socialise.

With regards to teaching modalities, the Shetland UHI (and UHI in general) has a strong focus on distance learning with an aim to deliver equality of access availability to both local and remote students. The COVID-19 pandemic highlights the worthiness and importance of this strategic aim. However, in its practical and skills-based curriculum, the majority of content is delivered on a face-to-face basis on campus. In this regard, there is a degraded degree of access availability to those young people or businesses located through the Isles. The COVID-19 pandemic and associated lockdown have further highlighted the advantages of being able to offer learning opportunities in novel and innovative ways that do not depend on face-to-face teaching in traditional college-based classes.

This proposal presents a realisable set of options that will directly tackle the issues noted above. The redevelopment options seek to markedly upgrade the Lerwick and Scalloway campuses and transform community access through use of mobile training facilities, increased use of new technologies in the classroom, and technologies that facilitate innovative learning approaches. These developments have the potential to revitalise the educational experience on offer in the Shetland Islands.

2.1.3 The Campus Redevelopment Proposal

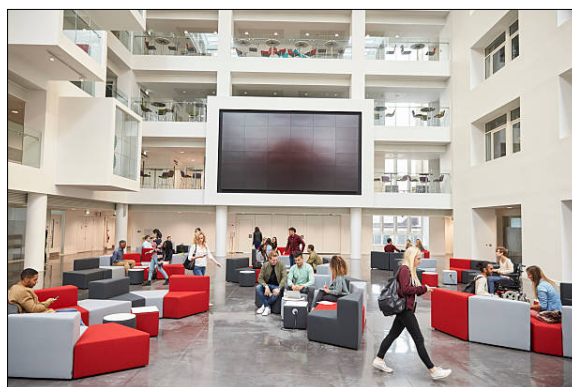
The proposal involves a comprehensive package of investment to undertake the following redevelopments, which are described in more detail in the subsequent sections:

1. Revitalise the **Student Spaces** across the Lerwick and Scalloway campuses to provide attractive areas where students can socialise and engage in collaborative or student-led learning.
2. Upgrade the **Learning Spaces** throughout the Lerwick and Scalloway campuses to enable the delivery of a range of innovative curricula.
3. Upgrade the **Workshop Spaces** to support the current and future training needs of local industries.
4. Build upon our **Community Spaces** to improve access to learning opportunities and facilities beyond the traditional college campus.

Student Spaces

This component of the proposal involves the creation of 'Student Spaces' – attractive and welcoming spaces where young people and visitors can socialise, study and access services to support their educational experience.

Student hubs will be developed in the reception areas of both the Lerwick and Scalloway campuses which will transform the look and feel of the building entrances into modern, bright, clean spaces. The student hubs will be designed to accommodate two main purposes:



- The hub will function as a large group social space – an open plan area, outfitted with comfortable furniture where students and college visitors can relax and socialise with friends and colleagues.
- The hub will also act as a central location where students can find information relating to whats going on around the college and be signposted to any of the services that support their educational experience, such as the Student Association and Student Support Services offices.

In addition to the Student Hubs, several small informal social spaces will be developed throughout the two main campuses, where students can socialise in smaller groups with a greater degree of privacy. These spaces will also be outfitted with comfortable furniture. Some of these spaces will have access to kitchen facilities where students can prepare food and hot drinks. These spaces will be student centred, i.e., will not be shared with college staff and can be configurable to the needs of students.

A small room on each campus will be designated a 'quiet room' and decorated in a tranquil, relaxing style. This multifaith space will be a quiet location set aside in the campus where people of differing religious beliefs, or none at all, are able to spend time in contemplation, relaxation or prayer.



The study space provision in the Lerwick campus library will be refurbished with larger desks with computer access for individual study. The library book shelving will also be replaced with a mobile, lightweight solution that allows the library space to be re-configured either temporarily, in the case of hosting events, or semi-permanently in response to the evolving needs of the student body.

Small rooms, adjacent to the library, will be equipped with round tables, whiteboards and AV equipment where students can host meetings, participate in collaborative project work and engage in student-led learning activities.

The scope of work involved in redevelopment of the Student Spaces is detailed in appendix E.

Learning Spaces

Flexible Classrooms

This component of the proposal involves upgrading non-specialist classrooms alongside the creation of several bespoke teaching & learning facilities that support the delivery of an engaging, modern curriculum.

The non-specialist classrooms spread throughout the Lerwick and Scalloway campuses will be upgraded to a revised specification, which aims to equip classrooms with the necessary connectivity, AV equipment, desk space and teaching tools to facilitate the delivery of the wide range of educational offerings available at Shetland UHI now and in the future. These classrooms will also focus on flexibility in design, employing reconfigurable furniture and mobile equipment where appropriate so that rooms can quickly be repurposed between classes. The objective of this design choice is to alleviate the constraints on classroom availability by freeing up classrooms that were previously reserved for a single purpose and thus underutilised much of the time.



The Auditorium

The auditorium at the Scalloway campus will be updated to increase its usability as a lecturing space. The cramped seating will be replaced throughout with comfortable, suitably spaced seating. In addition, several of the front rows will be fitted with desks and provided with power sockets so that students can take notes, place teaching material or work on a laptop.

Whilst the overall seating capacity of this room will therefore be decreased; it's functionality and appearance will be significantly improved.

Lerwick Campus Outdoor Learning Facility

An outdoor space, already informally used by staff and students for ad-hoc activities, will be developed into a multi-purpose, weather-protected polytunnel structure. The facility will offer outdoor learning opportunities of particular interest to our learning support department as well as a 'community-of-students' shared garden where our students can grow fruit and vegetables whilst learning traditional gardening skills. The structure will be built using repurposed materials by the local supplier Polycrub, who have a reputation for quality and a strong green ethos in design.

Aquaculture Learning Centre

The onshore aquaculture research and learning facility at the Scalloway Campus will be refurbished to establish a modern, fit-for-purpose learning environment. The infrastructure of the hatchery facilities at Scalloway are ageing and signs of deterioration are present that, without intervention, will soon lead to the facilities becoming unfit, ultimately undermining the college's capability to deliver teaching of aquaculture curricula and deliver associated research.

The refurbished aquaculture research and learning facility will support the teaching of higher level applied marine science topics, provide a functional space for aquaculture research, and ensure the maintenance of necessary biosecurity measures.

This facility will also be equipped with technologies that connect the existing facility to the other learning spaces in the college, and be accessible remotely, both across college and in the wider community. This connectivity will enable the college to expand the reach and accessibility of this innovative space to our community of learners and researchers.

The scope of work involved in redevelopment of the Learning Spaces is detailed in appendix F.

Newton Room

A Newton Room is a specialised teaching space that acts as a shared STEM resource for the local schools of a community. The teaching is led by enthusiastic and professionally-trained teachers who engage students in STEM curricula through practical activity-based learning.

The appearance of a Newton Room follows a design aesthetic that has an appealing, clean, and high-tech laboratory feel. The design is modular and is created to suit each site; in Shetland UHI the Newton Room will consist of two spaces: a teaching room and a laboratory.

Note that the Newton Room concept normally requires a third space – an auditorium. In Shetland, the Immersive Classroom technology presented in the following section will fulfil this role, creating a more enriching and engaging experience for students.



The teaching room will be a space where students can learn about science, technology, engineering, and maths subjects and participate in group discussions. The room will be outfitted with workstations that can be configured to various group sizes and to specifics of the activity. It will be possible to transition the teaching room to other purposes by removing the packable furniture into an easy to access storage location. This ensures that the space can be effectively utilised outside of scheduled Newton Room activities.

The laboratory, located in an adjacent room, will be a space where students can engage in the practical activity-based learning fundamental to STEM learning. The laboratory will be equipped with fixed lab benches and will have access to power outlets, running water and sinks.

The Newton Room will be created in Port Arthur House at the Scalloway campus. The scope of work involved in the creation of a Newton Room is detailed in appendix G.



The curriculum of activities on offer in our Newton Room will be aligned with the needs of local schools and those local industries that are important to economy of the Shetland Islands. This will initially include topics such as Mathematics, Robotics, Energy Production and Renewables but may later be expanded to include Aquaculture, Health Sciences, Forestry & Agriculture, Lifesciences, Biofuels and Space.

The Newton Room concept, both in learning materials and physical materials, will also support our provision of mobile facilities so that we can offer this uniquely enriching educational experience to students who are remote from the Scalloway campus. Details of our mobile facilities provision are described in detail in a subsequent section.

Immersive Classroom

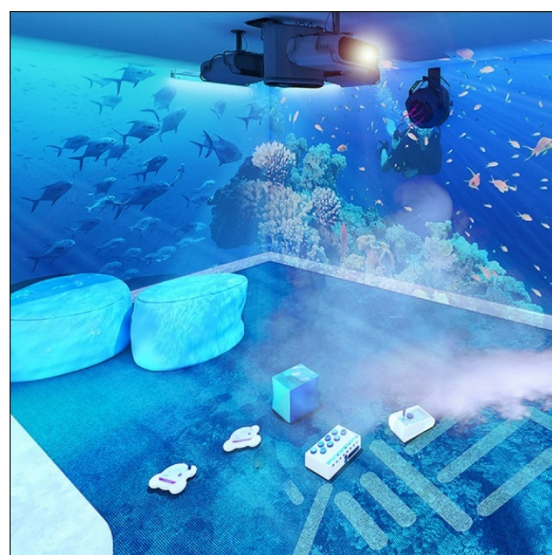
An Immersive Classroom provides the opportunity to offer a range of unique teaching experiences; a 360°, multi-sensory environment with the potential to deliver deeply engaging educational material spanning industrial sectors at all levels of educational qualification.

Immersive classrooms are created by outfitting a room with encapsulating projection screens, multiple HD projectors, surround sound, controllable LED lighting and human machine interfaces to produce an environment that transports participants into a virtual emulation of the real world. The experience is driven by a 3D media server with high bandwidth display controllers that is located on site.



To unleash the full potential of the Immersive Classroom, availability of content is key. The educational potential is limitless; for example, the system could be used to transport young learners to an ancient site of archaeological significance or the amazon jungle; or the system could be used to train technician level apprentices on the equipment found on a factory floor or sea-going vessel. One primary use-case of the Immersive Classroom will be to offer practical-based learning and training for the industries of our local community. To achieve this level of functionality, the system needs to be supplied with software content suitable to the current and future educational offerings provided by Shetland UHI. The availability of content will be ensured in three main ways:

1. The Immersive Classroom product comes with its in-house software package that hosts various immersive experiences and includes tools that users can access.
2. The product selected is packaged with access to an online community of content creators who are continually developing new content that can be downloaded and accessed. The community includes a group of dedicated creators who work alongside UK institutions to create content that is tailored to the national curriculum.
3. The product team also offers training so that local college staff, or local businesses, are able to develop their own immersive experiences using basic tools such as a 3D camera.



The scope of work involved in the creation of an Immersive Classroom is detailed in appendix H.

Workshop Spaces

Existing engineering and construction workshops will be upgraded to meet the future training needs of existing and new industries over coming decades, especially in the context of achieving a net-zero carbon economy.



This will involve the replacement of a number of ageing workbenches with modern alternatives; redesigning the materials storage area for improved space utilisation – thus expanding the available teaching space; the refurbishment of an external storage area; the procurement of a new CNC Router and the procurement of a range of modern woodworking machinery tooling. The improvement of these workshops is essential to enable the departments to deliver a fit-for-purpose curriculum tailored to emerging industries.

Our redeveloped workshop spaces will include the facilities necessary to train engineers on alternative energy technologies, including energy storage technology and hydrogen generation, storage and power technologies and facilities for construction students to receive training in the latest techniques for providing energy efficient built environments. In addition, these improvements will enhance the colleges' capacity to support training in STEM subjects for learners spanning all levels of the Scottish Credit and Qualification Framework.



The scope of redevelopment work has been developed through engagement with staff and other stakeholders in the Islands Deal programme including: The Islands Centre for Net-Zero, the Shetland Clean Energy Project, Shetland Space Innovation Campus and the TalEntEd Islands Programme.

The scope of work involved in redevelopment of the Workshop Spaces is detailed in appendix I.

Community Spaces

Learning Centres



The existing network of learning centres will be upgraded both in terms of appearance, provision of social spaces and the provision of modern classroom facilities both for the delivery of skills training and for access to the college's curriculum.

These upgrades will complement UHI's strategic aims of implementing blended and online learning and immersive technologies and will also help to establish more fully our aspiration to act as a 'College in the Community' by increasing access to a quality educational experience to students who are not local to our main campuses.

Mobile Facilities and Equipment

A range of mobile facilities and equipment that can be transported to and used in any suitable venue including schools, community halls, and business premises, will be developed to enhance the provision already in place through the College learning centres and community hubs. The mobile equipment provision will parallel and extend the curriculum currently on offer at the college, enhancing the outreach capability of the college.



The equipment will include both small-scale, highly-portable items that could be transported to a remote location on a day-to-day basis as well as larger equipment, which may be hosted at a remote location for a period of time or rotated around each of our rural learning centres on an agreed schedule of use. Transportation of equipment will be achievable by small motor vehicles such as a car or small van.

The initial mobile equipment list will enable an outreach offering that parallels some of the new equipment and technologies scoped in this project along with bespoke equipment specific to the local training needs of the island:

- A suite of electrical, mechanical, construction and fabrication toolsets will be procured to enhance the teaching of curriculum on offer within the college workshops.
- Mobile Newton Room equipment will be purchased so that a temporary Newton Room can be established in remote locations offering local primary school and early secondary school students the opportunity to engage in hands-on STEM activities.
- VR headsets will be purchased that will allow students, trainees, and apprentices to engage in the content on offer within the Immersive Classroom.

It is envisaged that as the college continues to offer skills training to local employers, this equipment list can be expanded to incorporate the emerging needs of our community.

Business Networking Facilities

Use of the new college online and digital facilities by local businesses for networking, workshops, customer outreach, and business development, as well as training, will be supported and facilitated. Shetland UHI will build on this to strengthen relations with local businesses with a view to developing collaborative partnerships, potentially including business funding or sponsorship of additional facilities, resources and/or activities. Through these stronger links, Shetland UHI will seek to meet the training needs of local employers better, both in relation to the range of courses offered and in relation to modes of delivery, to address some of the obstacles to staff training identified in recent employer surveys.

The scope of work involved in redevelopment of the Community Spaces is detailed in appendix J.

A Revised Approach

Shetland UHI will use the new and enhanced facilities outlined above to develop and deliver a flexible curriculum of learning opportunities for the people of Shetland that meets the needs of local people, employers, and businesses. For local people this will mean easier access to a wider and more flexible range of learning opportunities including in disciplines relevant to potential new employment opportunities in Shetland. For employers and businesses (both existing and new) it will mean easier access to training and development opportunities for staff and to a skilled workforce with relevant knowledge and competences.

There will be an emphasis on widening access to learning opportunities by increasing the flexibility of provision and on reducing obstacles to access. This will be achieved by moving the emphasis away from traditional, fixed-timetable, classroom-based training delivery towards providing greater remote and online, and community and business-based, access to learning opportunities. The overall objective is to make more learning opportunities available to more people at times and in places that meet the needs of learners and/or businesses (rather than the college).

There will also be an emphasis on meeting the current and future training needs of local businesses and employers. This will include identifying future training needs and opportunities and developing new courses to meet those needs.

Essentially, in addition to the benefits to learners and businesses and the wider community, the proposed project offers an opportunity to expand the business of Shetland UHI thus contributing fundamentally to its long-term sustainability.

The following tables summarise the initial 'ask' and value awarded in the Heads of Terms. Further detail and cost breakdown is presented in section 2.5 – The Financial Case.

Table 1: Summary of Financial Information - 1

	Capital (£'000)	Revenue (£'000)
Deal Ask	£2,003	£0,000
Value Awarded in HoT	£2,003	-£0,000

Table 2: Summary of Financial Information - 2

	Capital (£'000)	Revenue (£'000)
City Deal Leverage in SOC	£0,000	£0,000
City Deal Leverage in OBC	£0,000	£0,000

Table 3: Summary of Benefit Targets

Output / Benefits	Target
Increased number of flexible, online and remote learning opportunities that do not require attendance at traditional classes.	Increase of 20 courses by 2030.
Increased number of people accessing learning opportunities in Shetland (including those disadvantaged by geography or personal circumstances).	Increase in annual enrolment of: <ul style="list-style-type: none"> • 30 full time equivalent* (fte) students at FE • 10 fte Scottish students at HE
Increased number of school pupils engaging in STEM subjects and strengthened links with local schools.	Increase in annual enrolment of: <ul style="list-style-type: none"> • 10 fte Scottish students at HE
Increased numbers of employees undertaking training and strengthened links with local businesses.	Increase of 20 employee students or work-based students by 2030.
Increased use of learning centre facilities and strengthened links with local communities.	Increase of 30 users by 2030.
Increased number of learning opportunities relevant to new and developing industries in Shetland.	Increase of 10 courses (with focus on developing industries) by 2030.
Increased number of non-residents studying in Shetland (either face-to-face or virtually).	Increase in annual enrolment of: <ul style="list-style-type: none"> • 40 fte RUK and International students at HE.

** It should be noted that whilst the targeted enrolment is based on full time equivalent students it is planned that the college will accommodate a much larger number of part-time students and micro-credential based courses*

2.2 Strategic Case

2.2.1 The strategic context

The principal objective of the proposed project is to upgrade and enhance Shetland UHI facilities to enable provision of more local training and learning opportunities (more courses) to more people throughout the islands and to help meet the training and skills development needs of current and future businesses and industries. Beneficiaries will include school pupils, apprentices, employees, the unemployed and those returning to education, as well as school-leavers and potential or actual employers of these people.

2.2.2 The case for change

In student feedback the Shetland Campuses are generally described as having a traditional, perhaps ‘out-of-date’, and unattractive appearance. In the Lerwick and Scalloway campuses, there is a definitive lack of student social facilities or dedicated spaces for collaborative and student-led learning. The classrooms themselves are traditional in their design aesthetic, inflexible in their configuration, and vary in their classroom equipment provision. In summary, the present facilities do not offer a fit-for-purpose educational experience required to support the delivery of a flexible, dynamic and modern curriculum.

2.3 Economic Case

2.3.1 The long list

The following long-list of options was developed through extensive stakeholder engagement at project conception. The options are ordered by degree of intervention from minimum or no intervention to large scale overhaul of the college provision on the island.

Table 4: Summary of Long Listed Options

Option	Description
1.1 Do nothing	Continue with existing college facilities and capabilities
1.2 Partial Scope 1: Student Spaces only	Develop the ‘Student Spaces’ (detailed in 2.2 The Proposal) in each college campus
1.3 Partial Scope 2: Learning Spaces only	Develop the ‘Learning Spaces’ (detailed in 2.2 The Proposal) in each college campus, including flexible classrooms, Newton Room and Immersive Classrooms, etc.
1.4 Partial Scope 3: Workshop Spaces only	Develop the ‘Workshop Spaces’ (detailed in 2.2 The Proposal) in each college campus, including procurement of new workshop equipment and upgrading current workshops and development of new workshops to meet emerging local training demand.
1.5 Partial Scope 4: Community Spaces only	Develop the ‘Community Spaces’ (detailed in 2.2 The Proposal) including upgrading the learning centres and mobile facilities and equipment provision.
1.6 Combination Option: [1.2 to 1.5]	Redevelopment of existing campuses and community facilities

1.7 Rebuild Campuses	Construction of two new campuses on the NAFC and Shetland College sites
1.8 Build New Campus	Construction of an entirely new single campus college in Shetland to bring together all the activities currently carried out at Train Shetland, Shetland College and NAFC Marine Centre.

2.3.2 The short list

The long-listed options were evaluated against the critical success factors and the project objectives as specified in Section 3, Part A, Project Objectives. From this evaluation several of the long-listed options were rejected for progression into the short-listed options:

- Option **1.1: 'Do nothing'** was rejected as continuing with business as usual with no public sector intervention did not deliver on the objectives of the project.
- Both options **1.7: 'Rebuild existing campuses'** and **1.8: 'Build new campus'** were rejected as whilst they each presented strong potential of delivering against all of the project objectives, they were deemed to be unaffordable, i.e., the proposed intervention costs were deemed prohibitive.

Therefore options 1.2 through 1.5 were the selected shortlist of options (alongside option 1.6 – implementing options 1.2 to 1.5 in combination)

2.3.3 Key findings

An economic appraisal was carried out on the cash releasing and quantifiable benefits to review the options in terms of which was deemed likely to be the most effective mechanism for delivering UK public value. From this appraisal (see section 4.5), option 1.6 – the combination option in which the campuses and community facilities were redeveloped was deemed the preferred option.

In addition to an economic appraisal, a review and evaluation of the qualitative benefits was undertaken (see section 4.6) to review the options in terms of which was deemed likely to be most effective in realising some of the unquantifiable project objectives. Once again option 1.6 – the combination of option was deemed the preferred option.

In the following table, summarises the rankings arising from the Economic Appraisal and the Qualitative Benefits Appraisal.

Table 5: Summary of Overall Results

Evaluation Results	Option 1.2 Student Spaces Only		Option 1.3 Learning Spaces Only		Option 1.4 Workshop Spaces Only		Option 1.5 Community Spaces Only		Option 1.6 Combination Option	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Economic Appraisal	1.11	3	1.23	2	1.00	4	0.95	5	1.33	1
Qualitative Appraisal	15.7	5	27.2	3	24.4	4	27.5	2	33.3	1
Overall Ranking		5		2		4		3		1

2.3.4 Overall findings: the preferred option

Based on the key findings of the economic appraisal, option 1.6 was selected as the preferred option. This option involves a comprehensive package of investment to undertake the following redevelopments, which are described in more detail in section **2.1.3 – The Proposal**:

1. Revitalise the **Student Spaces** across the Lerwick and Scalloway campuses to provide attractive areas where students can socialise and engage in collaborative or student-led learning.
2. Upgrade the **Learning Spaces** throughout the Lerwick and Scalloway campuses to enable the delivery of a range of innovative curricula.
3. Upgrade the **Workshop Spaces** to support the current and future training needs of local industries.
4. Build upon our **Community Spaces** to improve access to learning opportunities and facilities beyond the traditional college campus.

2.4 Commercial Case

The services to be procured under the project with the greatest financial significance relate to the redesign and refurbishment of the Lerwick and Scalloway campuses alongside the purchasing and installation of new equipment.

2.4.1 Procurement strategy

UHI standard procurement mechanisms will be used in combination with taking consultation and advice from Shetland Islands Council procurement specialists where appropriate. It may be possible to achieve cost savings during procurement by contracting services in collaboration with other Islands Deal projects on Shetland or with other UHI projects. Where feasible these cost savings mechanisms will be pursued.

2.4.2 Required services

The required services for the refurbishment aspects of the project are standard design and build services for a capital project. In addition to this, there will be the procurement of specialist (e.g., workshop machinery) and non-specialist (e.g., classroom furniture) equipment. Equipment will be procured in accordance with the standard policies in the sector with review and approval by UHI procurement teams.

2.4.3 Potential for risk transfer and potential payment mechanisms

A strategy of identifying risks, determining a mitigation strategy and assigning or sharing risk to the party with the skills and expertise to deal with it will be followed. The general strategy is presented in Section 5.3 along with a risk transfer matrix describing which party is deemed best placed to manage risk during each stage of the project.

It is envisaged that a Fixed Price Contract will be employed for both contractors of redevelopment works and suppliers of equipment, where equipment has any on-going operational costs. Staged payments will be made in accordance with agreed milestones in delivery of goods and services.

2.5 Financial Case

In section 6.1, a projection of the financial implications of the preferred option (as set out in the economic case) and the proposed deal (as described in the commercial case) is set out.

2.5.1 Financial expenditure

The impact on the College's income and expenditure account is affected by the anticipated build phase scheduling. Note that a summary of expenditure and income is presented in Appendix A.

2.5.2 Overall affordability and balance sheet treatment

The Campus Redevelopment Project proposed herein is fully funded, as such there is no additional capital expenditure required from the College or UHI.

It is anticipated that the redevelopment work, i.e., the construction phase, will be spread over two years with early work being delivered in spaces that are not utilised or underutilised at the time of work being conducted thus minimising disruption to the normal business of the college. The proposed cost, broken down into project phases, is tabulated below:

Table 6: Summary of Capital Cost Breakdown

Description	Estimated Capital Cost - Phase Breakdown			Risk Cost and Contingency (£,000)
	Design (£,000)	Build (£,000)	Operational (£,000)	
Student Spaces	-	240	-	-
Learning Spaces – classrooms	-	600	-	-

Learning Spaces – Newton Room	-	203	-	-
Learning Spaces – Immersive Classroom	-	120	-	-
Learning Spaces – Aquaculture	-	160	-	-
Workshop Spaces – Construction	-	100	-	-
Workshop Spaces – Engineering	-	300	-	-
Community Spaces – on campus	-	120	-	-
Community Spaces – mobile equipment	-	60	-	-
Community Spaces – Learning Centres	-	100	-	-
SUB TOTAL	0	2,003	0	0
TOTAL	2,003			

2.6 Management case

The project is aligned to a number of other projects in the Islands Deal, both specific to Shetland and in a wider context amongst the other Scottish Islands. The campus redevelopment project is critical to provide the skilled workforce necessary to support the islands economy post Islands Deal and thus enable the successful delivery of other Islands Deal projects' long term goals. Due to this interconnectedness, this project will participate in several programme management arrangements for both reporting progress and to continue to explore means in which our projects synergise. The project lead will participate in a local (Shetland) programme steering group, along with other projects based on the Island, which will be led by Shetland Council. The project lead will also participate in a pan-islands programme steering group convened by the University of Highlands and Islands bringing together UHI led projects across the Islands.

2.6.1 Project management arrangements

At a regional level, the project will be overseen by a pan-island steering group convened by the University of the Highlands and Islands chaired by the UHI Senior Management lead for the islands and including the principals and project leads of the academic partners delivering in the islands. This group will have oversight of all the Islands Deal projects for which UHI has a project lead and will ensure the synergistic interaction of the various projects in which UHI is playing a role.

At a local level, a Shetland UHI Project Board will oversee local delivery of the work and report to the College Board

2.6.2 Benefits realisation and risk management

To ensure that the college and the Shetland community receive greatest value from the campus redevelopment project, the benefits of the project will be identified, measured and managed after the works have been completed. A Benefits Realisation Plan will be authored, and a suitable person will be nominated as responsible for the on-going management of the Plan.

To ensure that project risks are adequately identified and managed a planned and systematic approach to identification, evaluation and control of risks facing the redevelopment project will be adopted as a means of minimising costs and disruption to the project caused by undesirable or unexpected events.

A risk register will be created that is a live document which identifies and describes individual risks, classifies risks, scores their anticipated impact and their likelihood of occurring and identifies mitigating strategies. For high likelihood risks – whose mitigated likelihood score remains greater than or equal to 4/5 – contingency plans will be created for implementation on their occurrence.

2.6.3 Post project evaluation arrangements

The purpose of this post-project evaluation is to:

- evaluate the effectiveness of the project in realising the proposed benefits as outlined in the economic appraisal.
- compare planned costs and benefits with actual costs and benefits to allow an assessment of the project's overall value for money to be made.
- identify particular aspects of the project which have affected benefits either positively or negatively; recommendations for future projects can then be derived.
- reveal opportunities for increasing the project's yield of benefits, whether they were planned or became apparent during or after implementation, and to recommend the actions required to achieve their maximisation.

A pair of workshops will be conducted, the post implementation review (PIR) and the project evaluation review (PER), to achieve these tasks.

3. The Strategic Case

In this section, the objectives of the project will be presented along with how these objectives will be realised through the anticipated outcomes of the redevelopment. The context for these objectives will be discussed in terms of the principal strategic driver for this project, the objectives of our wider organisation and in what ways this project complements those of our key stakeholders.

Part A: The strategic context

Project Objectives

The principal objective of the proposed project is to upgrade and enhance Shetland UHI's facilities to enable it to provide more local training and learning opportunities (more courses) to more people throughout the islands and to help meet the training and skills development needs of current and future businesses and industries. Beneficiaries will include school pupils, apprentices, employees, the unemployed and those returning to education, as well as school-leavers and potential or actual employers of these people.

This project will complement the proposed TalEntEd project, which is focussed on training and skills and workforce development, by enhancing Shetland UHI's capacity to deliver relevant training and learning opportunities, not only in Shetland but, through distance and online learning technologies, also to learners in the other island groups within the partnership; thus, helping the latter project to achieve its objectives.

The funding sought through this project is required to address a long-standing lack of capital investment in Shetland UHI's facilities and the absence of other sources for the resources necessary to provide 21st century learning facilities in the islands.

Specific objectives include:

- Enhancing students' learning experiences in Shetland by improving access to learning opportunities and improving facilities for students.
- Reducing barriers to learning for people in Shetland caused, for example, by geography or personal circumstances by providing more local (community-based), online and flexible learning opportunities.
- Increasing the colleges' resilience and their ability to deliver learning opportunities in new and innovative ways.
- Expanding life-long learning opportunities for people in Shetland.
- Meeting the needs of both existing and new businesses in Shetland by training the workforce to meet the needs of both employers and employees.
- Promoting and facilitating the use of college facilities by businesses to meet their own needs.
- Meeting the needs of communities by providing accessible learning opportunities through permanent learning centres and temporary 'pop-up' facilities.
- Promoting and facilitating the use of college facilities by communities to meet their own needs.
- Strengthening links with Shetland's schools through school-college educational opportunities, which bridge the gaps between school and college or university and between

school and the world of work. In particular, promoting and facilitating education and training in STEM subjects (Science, Technology, Engineering and Mathematics).

- Exploring new educational and training needs and developing new opportunities in Shetland both to meet the future needs of the islands' population and businesses (both existing and new) and to attract more learners from outside the islands (both physically and virtually, via distance learning).

Projected Outcomes

The main outcome of the proposed Shetland UHI campus redevelopment project will be to make more learning opportunities available to more people across the islands and to better meet the training and skills development needs of existing and emerging business in the islands. A particular focus of the project is on increasing opportunities to learn flexibly online and remotely without having to attend traditional classes at fixed times and places.

Specific outcomes from the proposed project will include:

- Increased number of flexible, online and remote learning opportunities that do not require attendance at traditional classes.
- Increased number of people accessing learning opportunities in Shetland (including those disadvantaged by geography or personal circumstances).
- Increased number of school pupils engaging in STEM subjects and strengthened links with local schools.
- Increased numbers of employees undertaking training and strengthened links with local businesses.
- Increased use of learning centre facilities and strengthened links with local communities.
- Increased number of learning opportunities relevant to new and developing industries in Shetland.
- Increased number of non-residents studying in Shetland (either face-to-face or virtually).

Principal Strategic Driver

The principal local strategic driver for this investment is Shetland's Partnership Plan, which aims to help make Shetland:

"... an attractive place to live, work, study and invest, where people will be accessing...employment [and] education...in innovative ways designed to minimise the barriers to involvement for all and where all areas of Shetland will be benefitting from a more resilient low carbon economy underpinned by a culture of innovation, inclusion and skills development."

The proposed project will also contribute to the delivery of a range of other strategic plans at local, regional and national levels including; the Shetland UHI Strategy 2021-25; the Shetland Colleges Merger Business Case; the University of the Highlands and Islands Strategic Vision and the university's Islands Strategy; Highlands and Islands Enterprises' Strategic Vision; Colleges Scotland's, Skills Development Scotland's and Developing the Young Workforce's aims and priorities; and the Scottish Government's STEM Strategy, National Outcomes and National Islands Plan.

3.1 Organisational overview

Shetland

The 2019 Mid-Year Population Estimates for Scotland estimated Shetland's population at 22,090, spread across 16 inhabited islands, with the main population centre of Lerwick home to roughly 7,000 inhabitants.

Employment in Shetland is dominated by public administration, which accounts for 21% of full-time equivalent (FTE) employment. The next largest sectors in terms of employment are wholesale/retail (12%) and construction (8%).

The most recent economic survey conducted in Shetland found the overall output value of the local economy (based on combined output from all sectors) to be £1,091 million, of which around £198 million can be attributed to public services and £311 million can be attributed to seafood industries (fish catching, aquaculture and fish processing).

Shetland Islands Council

Shetland Islands Council is the local authority for Shetland, established by the Local Government (Scotland) Act 1973. The Council delivers services including, but not limited to, education, environmental health, roads and ferries, port services, planning, community development, economic development, and social care.

The Council is structured around five Directorates:

- Children's Services.
- Community Health and Social Care Services.
- Corporate and Executive Services.
- Development Services.
- Infrastructure Services.

These Directorates encompass the various services the Council operates to deliver on its statutory responsibilities and priorities.

Shetland UHI

Shetland UHI has recently been created as the new college for the Islands through the merger of NAFC Marine Centre UHI, Shetland College UHI and Train Shetland. Shetland UHI provide a wide range of learning opportunities for local people, ranging from school pupils to post-graduate researchers.

Shetland UHI has two campuses – one at Gremista, Lerwick and one at Port Arthur, Scalloway – with additional learning centres established throughout Shetland. Shetland UHI's registered address is located at the Gremista Industrial Estate in Lerwick. The College also operates rural learning centres in Yell, Unst, Whalsay, Brae and Lerwick.

At the Lerwick campus, Shetland UHI offers a wide range of study options, from national certificates to postgraduate degrees, across a variety of subjects, including creative industries, ICT, business & hospitality, health & social care and construction.

Facilities at the Lerwick campus include an Apple Mac suite, video conferencing facilities and construction workshops, as well as the Textile Facilitation Unit, which hosts three Shima Seiki knitting systems and a range of finishing equipment. The College also hosts the UHI Centre for Island Creativity and is one of three key locations (including Orkney and Perth Colleges) from which the

Institute for Northern Studies operates. Creative courses, including music and film, are delivered in Mareel through a Service Level Agreement with Shetland Arts Development Agency.

Shetland UHI also includes the Train Shetland service, which comprises two separate functions:

- Short Courses delivers a range of training courses to employers in Shetland across various disciplines, including first aid, business management, ICT, health & safety and construction. The centre is accredited by a number of compliance bodies including Highfield ABC, REHIS and OCR, and is the local Construction Plant Competency Scheme (CPCS) centre. Short Courses provides business and related training as part of the local Business Gateway service, and also operates as an examination centre for professional bodies and further/higher education institutes outside of Shetland.
- Vocational Training co-ordinates Modern Apprenticeships across a range of industries, including construction, business & administration, health & social care, engineering, vehicle maintenance, agriculture, hospitality and services. This is done through an annual delivery contract with Skills Development Scotland.

Shetland UHI deliver a range of training and qualifications related to maritime industries at its Scalloway campus, including qualifications in the engineering, fish catching and aquaculture sectors (including Modern Apprenticeships), and courses to train and qualify seafarers, including the Merchant Navy Cadet Programme.

Shetland UHI carries out a range of applied research and development projects in subjects relevant to the fishing and aquaculture industries, marine spatial planning and the marine environment in general. These include the assessment of shellfish stocks, analysis of fish catching trends, provision of fisheries management advice in support of policy development, and the preparation of the Shetland Islands Marine Spatial Plan and associated guidance.

Research can be provided on a contract or consultancy basis. Facilities at Shetland UHI's Scalloway campus include a ship bridge simulator, research/teaching laboratories, a marine hatchery and engineering workshops. Shetland UHI operates a number of vessels for research, survey, training and other purposes – these include a 12m fishing vessel and a 12.5m survey/training vessel, which is equipped to carry out seabed and hydrographic survey work and benthic sampling, as well as for nautical training.

Shetland UHI employs around 140 staff.

Lerwick campus: 31.7 FTE lecturing staff and 26.6 FTE support staff, plus 5 FTE staff in Train Shetland Short Courses and 4.7 FTE staff in Train Shetland Vocational Training.

Scalloway campus: 18.2 FTE staff in Marine Sciences, 16.5 FTE staff in Training and 10.1 staff in Central Services.

Shetland College UHI

Originating in 1970 as the Shetland College of Further Education, Shetland College was an academic partner of the University of the Highlands & Islands (UHI) and part of Shetland Islands Council's Development Services Directorate.

Shetland Fisheries Training Centre Trust and NAFC Marine Centre UHI

Shetland Fisheries Training Centre Trust (SFTCT) promoted the development of the Shetland fisheries and maritime sectors, including fish catching, fish processing, fish farming, marine

engineering, navigation, seamanship, research, and all related ancillary activities through advice, support, training, and research.

SFTCT was a registered charity governed by a Board of Trustees; the Board was comprised of representatives of the local seafood industry and a number of independent appointees and, up until the merger to create Shetland UHI, was responsible for operating the NAFC Marine Centre UHI.

Originating in 1992 as the North Atlantic Fisheries College, the NAFC Marine Centre was an educational and scientific institute, which supported training and development in Shetland's maritime industries, including the seafood sector. The Centre was an academic partner of UHI and was operated by the Shetland Fisheries Training Centre Trust.

3.2 Business strategies

Ministerial Merger Business Case

The merger of the NAFC Marine Centre, Shetland College and Train Shetland had the following goals:

- To achieve the best possible student experience, providing more opportunities educationally, socially and pastorally, than can be achieved by separate entities.
- To make tertiary education in Shetland sustainable, in ways that cannot be achieved by retaining separate entities with diminishing resources.
- To change and innovate and build capacity amongst staff.
- To build on our relationships with Shetland schools, communities and employers and respond to their ambitions and aspirations for post-school local learning and research.

Shetland UHI Strategy 2021

Mission: "To support a sustainable and collaborative environment in Shetland where the economy and community can prosper with local access to relevant, high-quality learning, training, and research opportunities."

Vision: "Shetland UHI will be an inspirational hub of innovation and learning designed to meet the needs of the people of Shetland, nationally and internationally."

Strategic Goals:

- Tertiary Education
 - We will offer high quality training in areas relevant to Shetland, meeting the needs of employers and supporting the skills development of young people and Shetland's workforce.
 - We will work in partnership to expand our work-based learning courses, international delivery and network contributions within the UHI partnership.
 - We will be a Destination of Choice, offering the best possible experience for all students in a range of inspiring learning environments.
 - We will offer diverse learning journeys with opportunities for progression to help all students to achieve their goals and potential.
- Research and Knowledge Exchange
 - We will create a vibrant research environment which builds on our collective strengths, supports innovation, and creates opportunities for inter-disciplinary activity.

- We will use our island centred expertise to create research opportunities locally and internationally in the fields of sustainable development, marine resources, governance, and creative practice.
- We will develop our postgraduate provision in marine and environmental science, arts, culture and the creative economy, and heritage.
- We will deliver research that supports sustainable economic development and recovery.
- Engagement
 - We will sit at the centre of the Shetland community and build on our positive relationships with local schools, businesses, and the community.
 - We will provide opportunities for our students to grow academically and personally, and to acquire skills and knowledge.
 - We will have accessible, equitable and inclusive opportunities for students, with excellent resources and support available to assist learners to achieve success.
 - We will value, encourage and invest in our staff; support their professional development; and promote collaborative working with internal and external colleagues.
- Enterprise
 - We will be financially sustainable and demonstrate financial growth.
 - We will carry out research to inform, facilitate and support Enterprise.
 - We will inspire, encourage, and support students, staff, and businesses to develop the knowledge, skills and motivation they need to realise their potential through Enterprise.
 - We will be an environmentally and socially responsible organisation.

Shetland's Partnership Plan 2018-2028

The Shetland Partnership, of which the Council is a key member, is the Community Planning Partnership for Shetland. Shetland's Partnership Plan 2018-2028 reflects the shared vision of the local area and the partner organisations:

"Shetland is a place where everyone is able to thrive; living well in strong resilient communities; and where people and communities are able to help plan and deliver solutions to future challenges.

"Shetland is an attractive place to live, work, study and invest, where people will be accessing... employment [and] education... in innovative ways designed to minimise the barriers to involvement for all and where all areas of Shetland will be benefitting from a more resilient low carbon economy underpinned by a culture of innovation, inclusion and skills development."

Shetland's Partnership Plan sets out the shared priorities of the Shetland Partnership for 2018-2028, which are as follows:

- **People:** Individuals and families thrive and reach their full potential.
- **Participation:** People participate and influence decisions on services and use of resources.
- **Place:** Shetland is an attractive place to live, work, study and invest.
- **Money:** All households can afford to have a good standard of living.

The proposed project will help address the following targets in the Partnership Plan:

- 97% of school leavers will be in positive destinations (education, employment, training, and personal development) in 2021, rising to 98% by 2028 (currently 96.1%).
- No more than 15% of businesses are struggling to fill vacancies due to a lack of local labour in 2021, and no more than 5% in 2028 (currently 20%).

The relevant ten-year outcomes from the Plan are as follows:

People

- The number of disadvantaged people and households in Shetland will be considerably reduced as a result of people being enabled and empowered to address the issues they face and helping others to thrive in the same way.

Place

- People will be accessing employment, education and services in new and innovative ways designed to minimise barriers to involvement for all.
- Shetland will be attracting and retaining the people needed to sustain our economy, communities and services.

Money

- Everyone will be able to access the support they need to maximise their income potential, including innovative, flexible and entrepreneurial employment opportunities throughout Shetland.

10 Year Plan to Attract People to Live, Study, Work and Invest in Shetland

A key objective for the Shetland Partnership is to develop and implement a ten-year action plan to attract people to live, work, study and invest in Shetland. This plan is predicated on the link between a healthy demographic balance and the ability to sustain communities and services and compete economically.

The vision of the 10 Year Plan is:

“In 2028 Shetland will:

- *Be an island of opportunity for young people, businesses and investors.*
- *Be a vibrant and positive student destination.*
- *Have a more balanced demographic profile and a growing population underpinned with more private sector jobs.”*

In order to achieve this vision, one of the objectives of the Plan is:

- To foster an environment that supports entrepreneurship and sustainable learning and research.

Under this objective, the plan identifies the following key priorities:

- Expansion of Modern Apprenticeship programmes across all disciplines and access funding from the Apprenticeship Levy.
- Development of Further Education programmes in developing skills areas and work with local businesses and community partners to develop a skills investment plan.

- Further develop HE programmes which retain and attract in students e.g., the performing arts programme with Shetland Arts in Mareel.
- Provision of short courses for businesses.

Shetland Islands Council – Our Ambition 2021-26

The Council's current Corporate Plan: Our Ambition 2021-26 has the following Vision Statement:

“Our Ambition 2021-26’ is based on a vision of working together to create a POSITIVE, CONFIDENT and SUSTAINABLE future for Shetland. A Shetland where the community’s OPPORTUNITIES attract people of all ages to live, work, study and invest in our islands.”

Within this plan, four key themes are explored: Shetland’s Population Balance, COVID-19 recovery and renewal, Skill and Learning and Digital Connectivity.

Within Skills and Learning, Shetland Council are committed to:

- Complete the redesign of Shetland’s tertiary education, research and training sector, which will help sustain the number of young people accessing learning. This will also help businesses get access to the skilled local workforce they require, contributing to Shetland’s Partnership Plan aim of helping people to reach their full potential.
- Continue to provide opportunities for young people to access employment resulting in sustained high participation rates in Modern Apprenticeships, Foundation Apprenticeships and Employability Programmes.
- Sustain the quality of learning and teaching in our schools to ensure all learners experience motivating and engaging learning opportunities that maximise attainment and achievement of positive destinations with a particular focus on closing the attainment gap.
- Work to achieve an empowered school system, with participation at all levels including parents, pupils and teachers.

University of the Highlands and Islands

The proposed project will contribute to meeting the university’s strategic vision of being recognised for the quality of [its] students’ experience and having a reputation built upon [an] innovative approach to learning; and to its strategic themes of acting as a force for economic, social and cultural change across the region by connecting and collaborating with businesses, public and third sector partners and communities, and continuing to meet the needs of learners within the region.

The proposed project also aligns with the university’s recently launched **Islands Strategy**, especially its key themes of skills, workforce development and talent attraction; producing a short course pan-islands prospectus offering provision in culture, heritage, archaeology and creative industries; profiling postgraduate online provision in culture, heritage, archaeology, marine sciences and creative industries; increasing pan-islands academic activity associated with University of the Highlands and Islands institutes, centres and departments; and attracting activity and people to the islands and to be based in the islands.

A particular benefit of the proposed project is that it will substantially increase the capacity and opportunity to share resources, expertise, knowledge and opportunities across the university’s three island groups as well as the wider university network. The increased capacity to deliver flexible training and to support learners online and at a distance will enable the colleges to make more learning opportunities available to more people across the island groups and the wider university area. Essentially it will enable each island college to offer learning opportunities to persons across all

the island groups. As well as expanding potential markets this will allow for the specialisation of individual colleges and a reduction in duplication and overlap of provision.

Local Employers

The proposed project will help address deficiencies in local training provision identified through recent surveys of local employers (Employment Survey 2017, Skills Survey 2018), including lack of availability of suitable training and issues around the delivery of training.

3.3. Other organisational strategies

The proposed project has strong strategic fits with:

Highlands and Islands Enterprise's strategic vision of developing a vibrant rural economy based on successful, productive and resilient businesses; strong, capable and resourceful communities; and a region which is well connected and well placed to maximise opportunities – creating the conditions for growth, with academic, education and skills infrastructure and skills development identified as key priorities for creating conditions for growth; strong, capable and resourceful communities; and successful, productive and resilient businesses.

Colleges Scotland's ambition that colleges have a critical role in supporting individuals and businesses in Scotland, enhancing citizenship, and providing leadership in the communities and regional economies in which we are situated, and that the college sector will be pivotal in: Developing our people and partnerships; supporting a successful economy; and helping communities thrive.

Skills Development Scotland's priorities of providing individuals with accessible education and skills provision to secure, sustain and progress in their careers in rural areas; and developing the current workforce in rural areas through upskilling and reskilling.

Developing the Young Workforce's strategic aims that young people are able to access more vocational options during the senior phase of secondary school, which deliver routes into good jobs and careers, developed through effective partnership between schools, colleges, local authorities and other partners; of improving opportunities and experiences for all learners; and of provision aligned with economic needs and regional planning, with a focus on STEM where appropriate.

The Scottish Government's STEM Education and Training Strategy for Scotland's priorities of: building the capacity of the education and training system to deliver excellent STEM learning so that employers have access to the workforce they need; closing equity gaps in participation and attainment in STEM so that everyone has the opportunity to fulfil their potential and contribute to Scotland's economic prosperity; inspiring children, young people and adults to study STEM and to continue their studies to obtain more specialist skills; and connecting the STEM education and training offer with labour market need – both now and in the future – to support improved productivity and inclusive economic growth.

The Scottish Government's National Outcomes' ambition that: We are well educated, skilled and able to contribute to society: We learn throughout our lives and find knowledge in varied and sometimes surprising places. Through learning we grow as individuals and as a nation, and as such, we must recognise and support excellence in teaching, research and innovation for all learners in all educational contexts.

The Scottish Government's National Strategic Infrastructure and Investment Plan (priorities: further and higher education; energy and energy efficiency; rural affairs, food and the environment).

The Scottish Government’s National Islands Plan (objectives: to address population decline and ensure a healthy, balanced population profile; to improve and promote sustainable economic development; to contribute to climate change mitigation and adaptation and promote clean, affordable and secure energy; to empower diverse communities and different places; to promote and improve education for all throughout life).

Other Islands Deal Projects

The proposed project complements and will contribute to the delivery of the other projects being developed as part of the Islands Deal package, primarily through the enhanced opportunities and capacity it will offer for training and workforce development. This will help ensure access to the trained and skilled workers, which will be necessary to ensure the success of these projects and their benefits to the wider Shetland community.

The facilities developed under this project will also offer wider potential benefits to these projects through the opportunities they will afford for wider engagement both with the local community and with business and projects in other areas of the world.

The follow table illustrates the commonalities between this project and those other Islands Deal projects.

	Islands Deal Projects					
	Space Innovation Centre	Shell-volution	Islands Centre for Net-Zero	Dales Voe Ultra-Deep-Water Decommissioning	Knab Redevelopment Programme	TalEntEd Islands
Training and skills development	✓	✓	✓	✓	✓	✓
Research opportunities	✓	✓	✓		✓	
Aquaculture learning facility		✓				
Student accommodation					✓	
Arts Centre / Innovation Centre					✓	

Space Innovation Campus

The development of space launch facilities in Shetland will create new opportunities for local people and a demand for workers with both new and traditional skills, knowledge and expertise. This activity will require an appropriately skilled and trained workforce with skills, knowledge and expertise across a wide range of subject areas relating to all aspects of space launch operations,

from the assembly, testing and launch of space vehicles to the recovery of spent rocket from the sea.

This proposed Shetland Campus Redevelopment project will equip Shetland UHI to build on existing training provision to help provide the skilled and trained workforce that a space launch facility will require. This will encompass providing a learner journey for young people into the engineering and associated sectors through STEM-subject promotion in schools, apprenticeships, and other further and higher education training opportunities. It will also encompass the retraining and upskilling of workers, including those affected by declines in other sectors of the economy. Finally, it will include meeting the ongoing workforce training needs of the industry as it expands and develops.

Shell-volution

The Shell-volution project aims to help develop a scientific foundation to create the conditions for growth in Scotland's mussel farming industry through research and development in three key areas: the supply of spat; the relationship between mussel farming and the environment; and developing industry best practice.

This project is closely linked with the research and training expertise and activity presently found in the Scalloway campus. We anticipate a growth in course provision in the area of applied aquaculture and continuing research of relevance to the industry.

This proposed Shetland Campus Redevelopment project will increase the Shetland UHI's ability to provide a range of aquaculture learning opportunities, including workplace-based and remote learning in partnership with aquaculture businesses and building on the experience already developed. The proposed learning facility specifically linked to Shetland UHI's existing onshore aquaculture facilities will make an important contribution to the capacity to support this learning, while the proposed Newton Room and focus on STEM subject development in schools will help contribute to the development of a trained workforce for the aquaculture industry.

With its experience and facilities, Shetland UHI will also be well placed to contribute to the research elements of the Shell-volution project.

Islands' Centre for Net Zero

Training and skills development to meet the anticipated needs of employers in a net zero carbon world is a key area for Shetland's new merged college. *'Ensuring that the right skills, education and workforce development opportunities, science and infrastructure are in place to fuel economic growth while achieving the transition to net-zero'* has been identified as key contributor to delivering a zero-carbon economy in the islands.

To help address this gap in current provision, the Islands' Centre for Net Zero is intended to be *'a hub for experiential learning, tertiary education, skills training and problem-based learning'*.

This proposed Shetland Campus Redevelopment project will equip Shetland UHI's to help deliver the training, skills and workforce development required to help achieve the objectives of the Islands' Centre for Net Zero. It is intended that the proposed redevelopment of the workshops will be informed by the Islands' Centre for Net Zero project and other work ongoing with employers.

Shetland UHI will also be well placed to contribute to the new research and development opportunities that the Islands' Centre for Net Zero will offer. Refurbished space will also be available for the Transition Labs planned as part of that project.

Dales Voe Ultra Deep-Water Decommissioning

The proposed Dales Voe Ultra Deep-Water Decommissioning facility is intended to increase the amount of decommissioning activity carried out in Shetland: the dismantling and recycling of redundant offshore oil field equipment. This activity will require an appropriately skilled and trained workforce, with a particular need for technical and engineering skills and qualifications.

This proposed Shetland Campus Redevelopment project will equip Shetland UHI to build on existing training provision to help provide the skilled and trained workforce that the decommissioning industry will require. This will encompass providing a learner journey for young people into the engineering and associated sectors through STEM-subject promotion in schools, apprenticeships, and other further and higher education training opportunities. It will also encompass the retraining and upskilling of workers, including those affected by declines in other sectors of the economy. Finally, it will include meeting the ongoing workforce training needs of the decommissioning industry as it expands and develops.

Knab Redevelopment Programme

The redevelopment of the former school site at the Knab includes a proposed mixed-use creative innovation facility providing specialist workspaces, shared common spaces (including for training) and equipment. This provision is seen as key to ensuring that the creative industries can continue to grow and develop in Shetland and to attracting new talent to the islands.

This facility will complement the creative arts provision at Shetland UHI and offer considerable potential for partnership and collaborative working for the benefit of students and college staff, potentially including shared use of facilities and shared inspiration and practice.

There will also be the potential for strong collaborative links and partnership with the research and other activities of the Centre for Islands Creativity (based at Shetland UHI).

Reducing carbon emissions (and thus contributing to the aim of a zero-carbon economy) is also a key aim of the Knab Redevelopment Programme, offering further opportunities for collaboration with this proposed project (and the Islands' Centre for net Zero), both in relation to training and skills development and research.

Finally, the Knab Redevelopment Programme offers an opportunity to create dedicated student accommodation in Shetland (potentially through the re-use of one of the existing buildings to be retained). The current lack of student accommodation in the islands has been identified in the Ministerial Merger Business Case and elsewhere as a significant barrier to accessing training and further and higher education for many people within Shetland (who are unable to travel to college daily) and to the aspiration of attracting more students from outside the islands. The provision of student accommodation is seen as crucial to the future development and viability of Shetland UHI. By reducing the need for daily journeys, student accommodation would also contribute to a reduction in carbon emissions in Shetland.

TalEntEd Islands

The TalEntEd Islands Partnership and Programme aims to fast track the decarbonisation of the Islands' economies (Orkney, Shetland and the Western Isles) by creating opportunities for education, skills, leadership, innovation, entre/intrapreneurship and commercialisation supporting the increase in sustainable 'green' jobs. Specific objectives of the planned programme include:

- Educating young islands innovators and entrepreneurs of the future through the Science Skills Academy Newton Rooms.

- Delivering an Innovative Islands Work Based Learning Model to support the needs of key sectors in the just transition to net zero.
- Increasing the number of entrepreneurs through the delivery of an innovation, leadership and entrepreneurship programme.

The development of learning facilities (including a Newton Room and workshop facilities) and the capacity to support learners in a wide variety of settings within Shetland Campus Redevelopment project will strongly support the TalEntEd Islands project's objectives, given its focus on training and skills and workforce development. This project will enhance Shetland UHI's

capacity to deliver relevant training and learning opportunities, not only in Shetland but, through distance and online learning technologies, also to learners in the other island groups within the partnership (Orkney and the Western Isles).

Part B: The case for change

In student feedback the Shetland Campuses are generally described as having a traditional, perhaps 'out-of-date', and unattractive appearance. In the Lerwick and Scalloway campuses, there is a definitive lack of student social facilities or dedicated spaces for collaborative and student-led learning. The classrooms themselves are traditional in their design aesthetic, inflexible in their configuration, and vary in their classroom equipment provision. In summary, the present facilities do not offer a fit-for-purpose educational experience required to support the delivery of a flexible, dynamic and modern curriculum.

With regard to teaching modalities, Shetland UHI (and UHI in general) has a strong focus on distance learning with an aim to deliver equality of access opportunity to local and remote students alike. The COVID-19 pandemic highlights the worthiness and importance of this strategic aim. However, much of the curriculum is still delivered on a face-to-face basis out of the Lerwick and Scalloway campuses. In this regard, there is a degraded degree of access availability to those young people or businesses located throughout the Shetland Islands.

This proposal presents a realisable set of options that will directly tackle the issues above. The redevelopment options seek to markedly upgrade the two main campuses and transform community access through use of mobile training facilities, increased use of new technologies and innovative learning approaches. These developments have the potential to revitalise the educational experience on offer in the Shetland Islands.

3.4 Investment objectives

The strategic drivers point to an opportunity to invest in redeveloping the educational offering provided by UHI on the Shetland Islands. The following investment objectives have therefore been developed for this proposal to describe the project outcomes:

Reference	SMART Objective
Investment Objective 1.	To increase access to learning opportunities in Shetland and improve learners' experiences by 2030.
Investment Objective 2.	To develop a highly skilled workforce to support economic development in key growth sectors of Shetland's economy by 2030.
Investment Objective 3.	To provide high quality educational, business and community facilities to attract and retain young people in Shetland by 2030.

These objectives will be delivered through this project by:

- Enhancing students' learning experiences in Shetland by improving access to learning opportunities and improving facilities for students.
- Reducing barriers to learning for people in Shetland caused, for example, by geography or personal circumstances by providing more local (community-based), online and flexible learning opportunities.
- Increasing the college resilience and its ability to deliver learning opportunities in new and innovative ways.
- Expanding life-long learning opportunities for people in Shetland.

- Meeting the needs of both existing and new businesses in Shetland by training the workforce to meet the needs of both employers and employees; promoting and facilitating the use of college facilities by businesses to meet their own needs; and building collaborative partnerships with industries.
- Meeting the needs of communities by providing learning opportunities in those communities through permanent learning centres and temporary ‘pop-up’ facilities; and promoting and facilitating the use of college facilities by communities to meet their own needs.
- Strengthening links with Shetland’s schools through school-college educational opportunities, which provide a range of ‘learner journeys’ from school to college or university and / or to the world of work. In particular, by promoting and facilitating education and training in STEM subjects (Science, Technology, Engineering and Mathematics).
- Exploring new educational and training needs and developing new opportunities in Shetland both to meet the future needs of the islands’ population and businesses (both existing and new) and attract more learners from outside the islands (both physically and virtually, via distance learning).

3.5 Existing arrangements

At present, post-school learning opportunities in Shetland, including vocational training, apprenticeships and further and higher education are provided by Shetland UHI

Shetland UHI offers a wide range of training opportunities in Shetland ranging from short vocational training courses and apprenticeships to degree and post-graduate level courses. Many of these courses are delivered to meet the training needs of local employers, especially in sectors such as fishing, aquaculture, engineering and construction, and close contacts exist between the training providers and local businesses.

The total student body numbers almost 3,000 and the colleges are estimated to contribute some £34 million (GVA) to the local economy and support some 250 jobs throughout the islands (UHI Economic Analysis).

Most current learning opportunities are ‘traditional’ in nature, involving face-to-face delivery of learning material in a traditional classroom setting to a fixed timetable and with limited use of online resources. This limits accessibility to learning opportunities by persons who are unable to attend college on fixed days and times, which can be problematic for those in employment, who live in remoter areas, or who have other commitments (such as childcare). It can also be problematic for businesses who may have difficulty releasing multiple staff to attend college on fixed days. Finally, it limits the colleges’ potential market largely to those living in Shetland who are not subject to any of these constraints.

Despite some piecemeal updates, most college learning facilities are at least 20 years old and are not well equipped or suited for the delivery of modern learning opportunities. Student facilities are particularly poor (something that is frequently brought up in student feedback) with very limited space for self-study and inadequate space for students to relax and socialise.

Shetland UHI has already developed a number of online courses in subjects that include Aquaculture and Art and Social Practice. Shetland UHI also contributes to the wider UHI networked delivery of

courses in Computing, Health and Social Care, Archaeology and Island Studies. These have demonstrated the potential of these modes of delivery to overcome barriers to accessing learning opportunities and to reach wider (potentially global) markets as well as providing a basis of experience and knowledge that can be built on to expand the range of courses available in this way.

3.6 Business needs

The proposed project will improve access to learning opportunities in Shetland and enhance learners’ experiences by improving college and community-based learning facilities and college capacity. This will include upgrading existing facilities to include improved student spaces, learning spaces, workshop spaces and community and business spaces. An increase in local (community-based), online and flexible learning opportunities will reduce barriers to learning.

Shetland UHI requires the developments proposed in this project to enable the college to meet the needs of learners, employers, businesses and communities in the 21st century and to ensure their own long-term sustainability. Current modes of delivering learning opportunities are inflexible and do not meet these needs so far as they might and limits the colleges’ potential markets.

The objectives will be primarily achieved by developing modern learning facilities to support the development and delivery of, and access to, learning opportunities for the people of Shetland. The proposed project is intended to deliver the core of a redevelopment programme and additional support will be sought from other sources to complement these.

The focus of the proposed project is to improve learning opportunities and experiences in Shetland through the creation of modern, fit-for-purpose student spaces, learning spaces, workshop spaces and community spaces, detailed in Section 2.2. These will encompass spaces in both the existing college campuses and rural learning centres, complemented by a range of new mobile and temporary ‘pop-up’ facilities, which will be used to extend the provision of learning opportunities, including into schools and into communities not served by permanent learning centres.

A priority across all the planned improvements and developments will be to ensure efficient use of space, ensure economic use of heating and lighting and improve insulation, and to implement Resource Efficient Scotland recommendations to help meet our zero carbon ambitions.

3.7 Potential business scope and key service requirements

The potential business scope relates to the services that could be provided. These range from a ‘minimum’ intervention (doing nothing and continuing to operate using existing facilities and capabilities) through to an ‘intermediate’ (desirable intervention) and ‘maximum’ (optional level of intervention):

Table 7: Business Scope and Key Service Requirements

	Minimum	Intermediate	Maximum
Potential business scope	Do nothing, i.e., continue to operate using the existing facilities and capabilities of the college.	Upgrade and enhance the facilities and capabilities of the existing college campus.	Build new college campus

	Minimum	Intermediate	Maximum
Key service requirements	There are no requirements for additional services other than those already in place.	<p>Redevelopment of campus.</p> <p>Additional training of staff on use of new facilities.</p> <p>Development of new curricula to fully realise the potential benefits of redevelopment.</p> <p>Marketing of new offering to potential students.</p> <p>Local community and business outreach.</p>	<p>Creation of new college campus</p> <p>Additional training of staff on use of new facilities.</p> <p>Development of new curricula to fully realise the potential benefits of redevelopment.</p> <p>Marketing of new offering to potential students.</p> <p>Local community and business outreach.</p>

The principal services identified are required to enhance students' learning experiences in Shetland; to expand learning opportunities and reduce barriers to learning; to meet the needs of existing and new businesses; to meet the needs of communities; to strengthen links with schools; and to attract more student enrolments from outside Shetland.

3.8 Main benefits criteria

The proposed project offers a variety of benefits at a range of levels:

Table 8: Investment Objectives and Benefits

Investment Objective	Main benefits criteria by beneficiary	Success Criteria
<p>Investment Objective 1</p>	<p>Learners</p> <ul style="list-style-type: none"> • Enhanced learning opportunities. • Easier access (reduced barriers) to learning opportunities. • Improved student facilities and learner experiences. <p>College</p> <ul style="list-style-type: none"> • More efficient use of college facilities. • Increased number of courses run, and students enrolled. • Expansion of potential market. • Greater income. <p>Governance (local, regional & national)</p> <ul style="list-style-type: none"> • Contribution to a wide range of strategies (sections 3.2 and 3.3) 	<p>Learners</p> <ul style="list-style-type: none"> • Increased numbers of students enrolled on courses. • Increased numbers of students accessing learning through ‘non-traditional’ means. • Improved results in learner feedback surveys. <p>College</p> <ul style="list-style-type: none"> • Increased number of courses delivered. • Reduced amount of unused or underused space. • Greater net income to college. • Reduced running costs and overheads. <p>Governance: see below.</p>
<p>Investment Objective 2</p>	<p>Communities</p> <ul style="list-style-type: none"> • Expanded life-long learning opportunities for local people. • More learning opportunities in communities: both physical (through learning centres, schools, and other outreach activities) and virtually (through greater use of online learning). • Stronger links between communities, schools and colleges. • Enhanced facilities available for school and community use. <p>College</p> <ul style="list-style-type: none"> • More efficient use of college facilities. <p>Governance (local, regional & national)</p> <ul style="list-style-type: none"> • Contribution to a wide range of strategies (sections 3.2 and 3.3) 	<p>Communities</p> <ul style="list-style-type: none"> • Increased numbers of mature students enrolled on courses. • Increased numbers of learners using rural learning centres and studying online. • Increased number of school pupils enrolled on courses. • Increased use of facilities by schools and community groups. <p>College</p> <ul style="list-style-type: none"> • Reduced amount of unused or underused space. <p>Governance: see below.</p>

Investment Objective	Main benefits criteria by beneficiary	Success Criteria
Investment Objective 3	<p>Local Businesses</p> <ul style="list-style-type: none"> • Workforce training for new and existing businesses. • Easier access to training for employees. • Stronger links between businesses and colleges. • Enhanced facilities available for business use. <p>College</p> <ul style="list-style-type: none"> • More efficient use of college facilities. • Positive contribution to net-zero strategic aim <p>Governance (local, regional & national)</p> <ul style="list-style-type: none"> • Contribution to a wide range of strategies (sections 3.2 and 3.3) 	<p>Local Businesses</p> <ul style="list-style-type: none"> • Increased numbers of employees enrolled on courses. • Increased number of businesses enrolling staff on courses. • Increased use of facilities by businesses. • Reduced amount of vacant / unused space. <p>College</p> <ul style="list-style-type: none"> • Reduced amount of unused or underused space. • Reduced carbon footprint. <p>Governance: see below.</p>
	<p>Governance</p> <p>The project makes a positive contribution to a wide range of local, regional, and national strategies as detailed in Section 3.2 and 3.3.</p>	<p>Criteria include but are not limited to:</p> <p>Partnership Plan</p> <ul style="list-style-type: none"> • Increased % of school leavers in positive destinations. • Decreased % of businesses struggling to fill vacancies. • Reduced number of disadvantaged individuals and households in Shetland. • Increased number of people accessing education in new and innovative ways. • Increased number of student enrolments, including from outside Shetland. <p>Scottish STEM Strategy</p> <ul style="list-style-type: none"> • Increased number of school pupils experiencing STEM training and continuing to study STEM subjects.

3.9 Main risks

The principal risks associated with the proposed project are considered to be:

Table 9: Main Risks and Mitigations

Risk Category	Main Risks	Mitigation
Service Risks	<p>Construction Risks</p> <ul style="list-style-type: none"> • Availability of equipment and supplies • Delays in design, procurement, and construction phases • Overspend in any of the project phases <p>Technical Risks</p> <ul style="list-style-type: none"> • Installation and commissioning of equipment 	<p>Effective project management and oversight by college project management committee and UHI Project Steering Group.</p>
Organisational	<p>Management risks</p> <ul style="list-style-type: none"> • Failure to successfully manage the project • Failure to realise the potential benefits of the project. <p>Staffing risks</p> <ul style="list-style-type: none"> • Failure to retain or recruit sufficient suitable staff to deliver the full benefits of the facilities. • Failure to engage successfully with businesses, communities and/or other stakeholders. 	<p>Effective management of college.</p> <p>Oversight by Board of Management and UHI (as Regional Body).</p>
External	<p>External risks</p> <ul style="list-style-type: none"> • Changes to Government or Funding Council policies or priorities; reductions in funding streams. • Impact of Covid-19 pandemic and associated public health measures (lockdowns). • Rising costs of materials as a result of global shortages resulting in need to reduce scope of redevelopment. 	<p>Support by Islands Deal Programme Management Board.</p> <p>Effective management of college(s).</p> <p>Monitoring of global material costs and appropriate review and approval of contractual arrangements with suppliers & contractors.</p>

3.10 Constraints

The principal potential constraints on the proposed project are considered to be:

- Availability of sufficient resources to fully implement the required measures.
- Ability of the college to effectively manage and utilise the new facilities.
- Availability of resilient, high-speed broadband access by all those who might wish to make use of the online learning and other opportunities to be offered by the college.
- Ability of the college to retain and/or recruit suitably experienced and qualified staff to take full advantage of the opportunities offered by the new facilities.
- Willingness of local businesses, communities and schools to engage with the college.

3.11 Dependencies

The project is subject to the following dependencies that will be carefully monitored and managed throughout the project:

- Political support (local and national).
- Maintenance of current FE and HE funding streams.
- Community and business engagement.
- External authorisations to proceed (planning consent, building regulations approval, etc.).
- Availability of resilient, high-speed broadband access by all those who might wish to make use of the online learning and other opportunities to be offered by the college.

4. The Economic Case

4.1 Introduction

In accordance with the Capital Investment Manual and requirements of HM Treasury's Green Book (A Guide to Investment Appraisal in the Public Sector), this section of the business case provides justification for the investment and explains why the extent of support is appropriate. Three arguments are presented to make this case:

1. That there is a need for public sector investment
2. That the project detailed herein is suitably conceived to meet this need.
3. That the project represents an efficient mechanism to meet this need

Note that the need for public sector investment [point 1] has been demonstrated in the Strategic Case of this document. It is shown that the strategic objectives of this project contribute to the delivery of a range of strategic plans at local, regional and national levels; principally Shetland Islands Council's Our Ambition 2021-26, Shetland's Partnership Plan and also including; the Shetland UHI Strategy 2021-25; the Shetland Colleges Merger Business Case; the University of the Highlands and Islands Strategic Vision and the university's Islands Strategy; Highlands and Islands Enterprises' Strategic Vision; Colleges Scotland's, Skills Development Scotland's and Developing the Young Workforce's aims and priorities; and the Scottish Government's STEM Strategy, National Outcomes and National Islands Plan.

The Strategic Case also describes the existing arrangements in the College's educational offering to the Shetland community and describes the Case for Change, i.e., how the shared strategic goals of the College and the government can be better realised given public sector investment in this project.

In this section, therefore, the arguments demonstrating that this is the right project [point 2] will be presented by elaborating on the scope of work selection methodology alongside an economic appraisal, which will demonstrate that this project represents an efficient mechanism for achieving the desirable economic and social impacts [point 3].

On arriving at a preferred option, a review of the proposal in terms of its impact on carbon emissions is made, ultimately concluding that whilst the carbon that can be controlled by the design is relatively small (see Section 4.8.1) there are various routes to positively contribute to *Carbon Influencing* mechanisms (i.e., the project forms synergies with various other projects that have direct *Carbon Control* mechanisms and the project enables teaching and learning of educational material with a focus on sustainability, and renewable energies. This discussion is presented in Section 4.8.

4.2 Critical success factors

Discussions with a range of stakeholders identified a range of potential critical success factors for the proposed project. These have been amalgamated and blended to create a set of measures against which to evaluate the long-listed options to discern a rational short-list of potential project options. The critical success factors are as follows:

Table 10: Critical Success Factors

ID	Reference	Description
CSF1	Strategic fit	How well the options fit with key elements of relevant local, regional and national strategies and plan.
CSF2	Affordability	Whether the costs of the option match the likely level of available funding.
CSF3	Value for money	How well the option maximises the return on the required spend in terms of economy, efficiency and effectiveness from the perspectives of the colleges, the community, businesses and other stakeholders.
CSF4	Achievability	How likely the option is to be delivered in view of their complexity and the capacity of the organisation.
CSF5	Organisational benefits	The potential benefits that the option offers to the college.
CSF6	Learner benefits	The potential benefits that the option offers to current and potential future learners.
CSF7	Societal benefits	The potential benefits that the option offers to communities, businesses, and other stakeholders.

4.3 The long-listed options

The following long-list of options was developed through extensive stakeholder engagement at project conception. The options are ordered by degree of intervention from minimum or no intervention to large scale overhaul of the college provision on the island.

Table 11: Long Listed Options - Summary of inclusions, exclusions and possible options

Option	Description
1.1 Do nothing	Continue with existing college facilities and capabilities
1.2 Partial Scope 1: Student Spaces only	Develop the 'Student Spaces' (detailed in 2.2 The Proposal) in each college campus
1.3 Partial Scope 2: Learning Spaces only	Develop the 'Learning Spaces' (detailed in 2.2 The Proposal) in each college campus, including flexible classrooms, Newton Room and Immersive Classrooms, etc.
1.4 Partial Scope 3: Workshop Spaces only	Develop the 'Workshop Spaces' (detailed in 2.2 The Proposal) in each college campus, including procurement of new workshop equipment and upgrading current workshops and development of new workshops to meet emerging local training demand.
1.5 Partial Scope 4: Community Spaces only	Develop the 'Community Spaces' (detailed in 2.2 The Proposal) including upgrading the learning centres and mobile facilities and equipment provision.

1.6 Combination Option: [1.2 to 1.5]	Redevelopment of existing campuses and community facilities
1.7 Rebuild Campuses	Construction of two new campuses on the NAFC and Shetland College sites
1.8 Build New Campus	Construction of an entirely new single campus college in Shetland to bring together all the activities carried out at Train Shetland, Shetland College and NAFC Marine Centre.

4.4 Short-listed options

The long-listed options were evaluated against the critical success factors and the projects objectives as specified in Section 3, Part A, Project Objectives with the results summarised below:

Table 12: Long List Options Matrix Evaluation - Critical Success Factors and Project Objectives

Critical Success Factors	1.1 Do Nothing	1.2 Student Spaces	1.3 Learning Spaces	1.4 Workshop Spaces	1.5 Community Spaces	1.6 Combo (1.2 to 1.5)	1.7 Rebuild Campuses	1.8 Build New Campus
CSF1 Strategic fit	✗	✓	✓	✓	✓	✓	✓	✓
CSF2 Affordability		✓	✓	✓	✓	✓	✗	✗
CSF3 Value for money		✓	✓	✓	✓	✓		
CSF4 Achievability		✓	✓	✓	✓	✓		
CSF5 Organisational benefit	✗	✓	✓	✓	✓	✓	✓	✓
CSF6 Learner benefit	✗	✓	✓	✓	✓	✓	✓	✓
CSF7 Societal benefit	✗	✓	✓	✓	✓	✓	✓	✓
Project Objectives								
Enhance student's experiences	✗	✓	✓	✓	✓	✓	✓	✓
Reduce barriers to learning	✗		✓		✓	✓	✓	✓
Increase college resilience	✗		✓		✓	✓	✓	✓

Expand learning opportunities	x		✓	✓	✓	✓	✓	✓
Meet the needs of businesses	x		✓	✓		✓	✓	✓
Meet the needs of communities	x				✓	✓	✓	✓
Strengthen links with schools	x		✓		✓	✓	✓	✓
Meet new training needs	x		✓	✓		✓	✓	✓

From this evaluation several of the long-listed options were rejected for progression into the short-listed options:

- Option **1.1: 'Do nothing'** was rejected as continuing with business as usual with no public sector intervention did not deliver on the objectives of the project.
- Both options **1.7: 'Rebuild existing campuses'** and **1.8: 'Build new campus'** were rejected as whilst they each presented strong potential of delivering against all of the project objectives, they were deemed to be unaffordable, i.e., the proposed intervention costs were deemed prohibitive.

Therefore options 1.2 through 1.5 were the selected shortlist of options (alongside option 1.6 – implementing options 1.2 to 1.5 in combination):

Table 13: Short Listed Options

Option	Description
1.2 Partial Scope 1: Student Spaces only	Develop the 'Student Spaces' in each college campus
1.3 Partial Scope 2: Learning Spaces only	Develop the 'Learning Spaces' in each college campus, including flexible classrooms, Newton Room and Immersive Classrooms, etc.
1.4 Partial Scope 3: Workshop Spaces only	Develop the 'Workshop Spaces' in each college campus, including procurement of new workshop equipment and upgrading current workshops and development of new workshops to meet emerging local training demand.
1.5 Partial Scope 4: Community Spaces only	Develop the 'Community Spaces' including upgrading the learning centres and mobile facilities and equipment provision.
1.6 Combination Option: [1.2 to 1.5]	Redevelopment of existing campuses and community facilities

Note: a detailed description of each of these options is presented in Section 2.2: The Campus Redevelopment Proposal under their respective titles.

Further consideration was given to each of these short-listed options, using the same criteria as for the long-listed options. It was noted that each of options 1.2 to 1.5 satisfied the critical success

factors individually, i.e., were strategically aligned, affordable, delivered value for money, were achievable and delivered benefit to the organisation, learners and society. However, none of these options fully satisfied the project objectives. The only option to fully satisfy the critical success factors and to satisfy all of the project objectives was **1.6: 'Combination Option [1.2 to 1.5]'**. In the following section, an economic appraisal will be undertaken to further inform the selection process.

4.5 Economic appraisal

The purpose of the economic appraisal is to present a cost-benefit analysis (CBA) to evaluate the short-listed options and to identify which option represents an effective mechanism to optimally realises UK public value.

Note that the remit of the economic appraisal is not to determine unequivocally the only 'correct option' or to discover an option that 'maximises' UK public value; rather, the goal is to compare options in terms of quantified measures of economic or social cost and benefit so as to identify which option is deemed likely to be the most effective mechanism for delivering UK public value. The purpose of this task, therefore, is not to decide the project scope but to explore each option in more detail and to inform decision makers when selecting an option.

It should be understood that there may be aspects of each option that are not easily quantified or numerically compared; these aspects will be discussed in Section 4.6: Qualitative Benefits Appraisal.

4.5.1 Introduction

In developing this analysis, the following HM Treasury Green Book principles have been adopted and applied:

1. The appraisal considers the relevant costs and benefits of the project and to what degree each of them might be realised by implementing the shortlisted options. An approach has been taken to quantify and monetise those costs and benefits where possible; those not readily quantifiable have been excluded from this appraisal and considered separately.
2. Where monetised, costs and benefits have been normalised to the real cost in the base year of 2021 (year of this OBC submission). The effects of common cost escalation rates like inflation are therefore not required in the analysis to enable a comprehensible comparison of options.

4.5.2 Estimating benefits

The expected benefits from this project have been placed into the following categories:

- **Quantifiable**, i.e., measurable benefits whilst not being readily monetizable
- **Cash Releasing**, i.e., financial benefits such as avoided spend or income realised
- **Non Cash Releasing**, i.e., economic benefits such as opportunity cost of staff time
- **Qualitative**, i.e., those benefits that are comprehensible whilst not being easily measured

Benefits have been further sub-categorised as being **direct to organisation(s)** such as Shetland UHI, UHI and to local businesses or **indirect to organisation(s)** such as to learners and the community. The benefits have been derived from the project objectives as specified in Section 3:

Table 14: Main Project Benefits

Type	Direct to Organisation(s)	Indirect to Organisation(s)
Quantitative (or quantifiable)	-	Learners <ul style="list-style-type: none"> • Reduced barriers to learning for people in Shetland. • Expanded life-long learning opportunities for people in Shetland.
Cash releasing	College <ul style="list-style-type: none"> • Increasing college resilience and its ability to deliver learning opportunities in new and innovative ways. 	-
Non-cash releasing	-	-
Qualitative (or non-quantifiable)	Local Businesses <ul style="list-style-type: none"> • Exploring new educational and training needs and developing new opportunities in Shetland both to meet the future needs of the islands' population and businesses • Meeting the needs of both existing and new businesses in Shetland. • Promoting and facilitating the use of college facilities by businesses. 	Learners <ul style="list-style-type: none"> • Enhanced students' learning experiences in Shetland. Communities <ul style="list-style-type: none"> • Promoting and facilitating the use of college facilities by communities to meet their own needs. • Meeting the needs of communities by providing accessible learning opportunities. • Strengthening links with Shetland's schools through school-college educational opportunities.

4.5.3 Methodology for Assessing the Quantifiable Benefits

The method of assessing quantifiable benefits (those categorised as Quantitative or Cash Releasing) will use the following procedure:

When quantifying benefits:

1. Targets will be listed that quantify the expected impact of the proposal in terms of the Outcomes listed in Section 3. Those outcomes leading to increased enrolment will be noted as this mechanism is deemed the primary mechanism of generating quantifiable benefit.
 - The cash realising benefit to the college will be estimated in terms of enrolment fees and the quantitative benefit to learners will be estimated in terms of the enhanced lifetime earning premium that learners gain by participating in education.
 - These values will be expressed as Gross Value Added (GVA) and normalised to 2021.
2. For each option, a judgement will be made of its individual contribution of realising enrolment targets, which will be expressed as the weighting factor ('w').

3. For each option, the predicted benefit will be calculated using the formula:

$$Benefit = (Enrolment\ Fee + Lifetime\ Earning\ Potential) \times w$$

When quantifying costs:

4. For each option, the costs will be estimated based on the provisional costs provided by potential suppliers for fulfilling individual aspects of the proposal.

For assessment:

5. For each option, a Benefit-Cost Ratio (BCR) will be calculated. A higher BCR indicates a better performance in terms of assessing the cost-effectiveness of realising quantifiable benefits.

Specifying Targets, i.e., Quantifying the Potential Impact

The table overleaf presents a summary of the Outcomes for this project and their associated quantifiable targets.

Table 15: Summary of Outcomes and Quantifiable Targets

Outcome Ref.	Benefit	Baseline	Target	2021/22	2031/32
O1	Increased number of flexible, online and remote learning opportunities that do not require attendance at traditional classes.	Number of Courses on offer at Shetland UHI in 2020/21	Increase of 20 courses by 2030.	Baseline	Baseline + 20
O2	Increased number of people accessing learning opportunities in Shetland (including those disadvantaged by geography or personal circumstances).	Total number of students enrolled at Shetland UHI in 2020/21.	Increase in annual enrolment of: <ul style="list-style-type: none"> 30 full time equivalent* (fte) students at FE 10 fte Scottish students at HE 	Baseline	Baseline + 30 (FE) +10 (HE)
O3	Increased number of school pupils engaging in STEM subjects and strengthened links with local schools.	Number of school students accessing a course at Shetland UHI in 2020/21.	Increase in annual enrolment of: <ul style="list-style-type: none"> 10 fte Scottish students at HE 	Baseline	Baseline + 10
O4	Increased numbers of employees undertaking training and strengthened links with local businesses.	Number of employees accessing a course at Shetland UHI in 2020/21.	Increase of 20 employee students or work-based students by 2030.	Baseline	Baseline + 20
O5	Increased use of learning centre facilities and strengthened links with local communities.	Number of people utilising learning centres in 2020/21.	Increase of 30 users by 2030.	Baseline	Baseline + 30
O6	Increased number of learning opportunities relevant to new and developing industries in Shetland.	Number of Courses with focus on developing industries on offer at Shetland UHI in 2020/21	Increase of 10 courses (with focus on developing industries) by 2030.	Baseline	Baseline + 10
O7	Increased number of non-residents studying in Shetland (either face-to-face or virtually).	Total number of non-residents enrolled at Shetland UHI in 2020/21.	Increase in annual enrolment of: <ul style="list-style-type: none"> 40 fte RUK and International students at HE. 	Baseline	Baseline + 40

* It should be noted that whilst the targeted enrolment is based on full time equivalent students it is planned that the college will accommodate a much larger number of part-time students and micro-credential based courses.

Estimating the Cash Releasing Benefit to College

When estimating the cash releasing benefits to the college, the values that have been included in our economic appraisal are those pertaining to full time equivalent (fte) students enrolled at FE and HE level. The cash releasing benefit to the college for each fte student enrolled will depend on the specific course and the country of residence of the student. It should be noted that some aspect of the college enrolment fee is realised at the college (circa 65%) and that other portions are realised at the regional or institutional level of UHI. For simplicity's sake, benefits are not segregated in the following table (i.e.: 100% of the benefit is used):

Table 16: Approximation of Cash Released to College per Enrolment

Description	Cash released to college (£,000)*	Targeted Enrolment Increase (fte)	Gross Value Added (GVA) (£,000)
Scottish Student enrolled at FE	1.820	30	54.60
Scottish Student enrolled at HE	1.285	10	12.85
RUK or International Student enrolled at HE	6.915	40	276.60
		TOTAL	344.05

* Source: <https://www.uhi.ac.uk/en/studying-at-uhi/first-steps/how-much-will-it-cost/ug/>

Estimating the Quantitative Benefit to Learners

When estimating the value of the attending college to the student, our analysis will be based upon the NAFC & Shetland College Economic Impact Assessment conducted by BiGGAR Economics for UHI in September 2020. The assessment reported the Gross Value Added (GVA) for students engaging in education, who enhance their earning potential over the course of their working lives. The assessment applied a Productivity Premium, i.e., additional lifetime earnings to each student qualifying at a given SCQF level. Those Productivity Premiums were as follows:

Table 17: Productivity Premium per SCQF Level

SCQF Level	Productivity Premium (£)
Level 4	8,667
Level 5	22,444
Level 6	29,444
Level 7 & 8 (non-STEM)	28,500
Level 7 & 8 (STEM)	78,500

For simplicity's sake, we will assume that new qualifications, arising due to this investment will be at SCQF Level 6. It is understood that new qualifications will likely span the SCQF Qualification Levels, but it is considered that SCQF Level 6 represents a reasonable median value. Given this assumption, the GVA targeted in this proposal in terms of quantitative benefit realised to learners through enhanced earning potential can be estimated as:

Table 18: Approximation of GVA arising from Enhanced Future Earnings

Description	Productivity Premium (£)	Targeted Enrolment Increment (fte)	Gross Value Added (GVA) (£,000)
SCQF Level 6 Qualification	29,444	80	2,355.52

Note that at present the majority of qualifications issued by Shetland UHI are around SCQF Level 6, further supporting the validity of this assumption.

Table 19: Qualifications issue by NAFC and Shetland College in 2019

SCQF Level	Number of Qualifiers	Examples of Awards Included
Level 1	10	National 1 Awards
Level 2	10	National 2 Awards, National Certificate, National Progression Award
Level 3	10	National 3 Awards, Skills for Work Nation 3, National Certificate, National Progression Award
Level 4	250	National 4 Awards, Skills for Work National 4, National Certificate, National Progression Award, SVQ 1
Level 5	330	National 5 Awards, Skills for Work National 5, Modern Apprenticeships, National Certificate, National Progression Award, SVQ 2
Level 6	440	Higher Awards, Skills for Work Higher, National Certificate, National Progression Award, Foundation Apprenticeships, Professional Development Award, SVQ 3
Level 7	90	Advanced Higher Awards, Scottish Baccalaureate, Modern Apprenticeships, HNC, Professional Development Award, SVQ 3
Level 8	10	Diploma of Higher Education, Technical Apprenticeship, HND, Advanced Diploma, Professional Development Award, SVQ 4
Level 9	30	Bachelors/ Ordinary Degree, Graduate Diploma, Technical Apprenticeship, Professional Development Award, SVQ 4
Level 10	10	Honours Degree, Graduate Diploma, Graduate Certificate, Graduate Apprenticeships, Professional Development Award
Level 11	10	Masters' Degree, Post Graduate Diploma, Professional Apprenticeship, Professional Development Award, Graduate Apprenticeship, SVQ 5
Level 12	-	Doctoral Degree, Professional Apprenticeship, Professional Development Award
Total	1,150	

Estimating the Impact Contribution of each Option

When considering each option, it is worth examining a logic model which describes how desired outcomes are projected to arise from the suite of potential investments.

Table 20: Logic Model describing Mechanism of Impact Realisation

Input	Activities	Outputs	Outcomes	Impact
1.2 Partial Scope 1: Student Spaces only	Implementing the scope detailed in Section 2.2 'Student Spaces'	More attractive and welcoming spaces where young people and visitors can socialise, study and access services to support their educational experience.	Partial realisation of outcomes: O1, O7	Partially realised Quantifiable Benefits $W_{1.2} = 0.1$
1.3 Partial Scope 2: Learning Spaces only	Implementing the scope detailed in Section 2.2 'Learning Spaces'.	Upgraded classrooms alongside several bespoke teaching & learning facilities that support the delivery of an engaging, modern curriculum.	Partial realisation of outcomes: O1, O2, O3, O5, O6, O7	Partially realised Quantifiable Benefits $W_{1.3} = 0.5$
1.4 Partial Scope 3: Workshop Spaces only	Implementing the scope detailed in Section 2.2 'Workshop Spaces'.	Upgraded engineering and construction workshops to meet the future training needs of local industries.	Partial realisation of outcomes: O1, O2, O4, O5, O6, O7	Partially realised Quantifiable Benefits $W_{1.4} = 0.15$
1.5 Partial Scope 4: Community Spaces only	Implementing the scope detailed in Section 2.2 'Community Spaces'.	Upgraded network of learning centres both in terms of appearance, provision of social spaces and provision of modern classroom facilities.	Partial realisation of outcomes: O1, O2, O3, O5, O7	Partially realised Quantifiable Benefits $W_{1.5} = 0.1$
1.6 Combination Option: [1.2 to 1.5]	Implementing the full scope as detailed in Section 2.2.	All of the above.	Realisation of all outcomes: O1 to O7	Full scale of Quantifiable Benefits $W_{1.6} = 1.0$

Note that as the desired outcomes are the same for each option (i.e., college enrolment targets), the degree to which each option is projected to achieve the potential impact is expressed as a fractional weight. This value represents our consideration of how well each option contributes to that impact.

For example, in the table above it is suggested that if only Option 1.2 (redeveloping the student spaces) was undertaken, the impact of the college redevelopment project would be diminished to around 30% of the impact of Option 1.6 (implementing the full proposal).

Predicted Benefit per Option

Given the above assumptions the predicted benefit per option can be estimated using the following formula:

$$\text{Benefit} = (\text{Enrolment Fee} + \text{Lifetime Earning Potential}) \times w$$

Table 21: Calculation of Predicted Benefit per Option

Option	GVA to College (£,000)	GVA to Student (£,000)	Weighting Factor	Predicted Benefit (£,000)
1.2 Partial Scope 1: Student Spaces only	344.05	2,355.52	0.1	269.96
1.3 Partial Scope 2: Learning Spaces only	344.05	2,355.52	0.5	1,349.79
1.4 Partial Scope 3: Workshop Spaces only	344.05	2,355.52	0.15	404.94
1.5 Partial Scope 4: Community Spaces only	344.05	2,355.52	0.1	269.96
1.6 Combination Option: [1.2 to 1.5]	344.05	2,355.52	1.0	2,699.57

Note that a low weighting has been applied to each option that only considers implementing a partial scope of redevelopment work as it is deemed unlikely that any individual piecemeal upgrade of the college campus has the potential to have a transformative effect on the attractiveness of the college as a place of study.

4.5.4 Estimating costs

The costs of the short-listed options can be estimated based on the provisional costs provided by potential suppliers for fulfilling each aspect of the project. Further detail is provided in Section 6: the Financial Case and is summarised in the following table.

The carbon emissions impact cost of the redevelopment work has been estimated (in accordance with the latest Green Book guidance) in Section 4.8.1. Each workstream in the redevelopment project will be attributed a fraction of the Total Embodied Carbon based on its cost contribution to the project as a whole.

Table 22: Cost Estimate per Option

Option	Estimated Capital Cost - Phase Breakdown			Carbon Emissions Impact Cost (£,000)
	Design (£,000)	Build (£,000)	Operational (£,000)	
1.2 Partial Scope 1: Student Spaces only	-	240	-	2.33
1.3 Partial Scope 2: Learning Spaces only	-	1,083	-	10.49
1.4 Partial Scope 3: Workshop Spaces only	-	400	-	3.88
1.5 Partial Scope 4: Community Spaces only	-	280	-	2.71
1.6 Combination Option: [1.2 to 1.5]	-	2,003	-	19.41

4.5.5 Benefit-Cost Ratio

The benefit-cost ratio (BCR) for each option is expressed in the table below:

Table 23: Calculation of Quantitative BCR per Option

Option	Predicted Benefit (£,000)	Estimated Cost (£,000)	BCR	Rank
1.2 Partial Scope 1: Student Spaces only	269.96	242.3257	1.11	3
1.3 Partial Scope 2: Learning Spaces only	1,349.79	1,093.49	1.23	2
1.4 Partial Scope 3: Workshop Spaces only	404.94	403.8762	1.00	4
1.5 Partial Scope 4: Community Spaces only	269.96	282.7133	0.95	5
1.6 Combination Option: [1.2 to 1.5]	2,699.57	2,022.41	1.33	1

4.5.6 Option appraisal conclusions

Based on the above cost-benefit analysis, the Option 1.6 was deemed the most effective mechanism for delivering UK public value. Option 1.6 involves implementing the full scope of works as detailed in Section 3. However, as stated earlier, it should be understood that there are aspects of the proposal that are not easily quantified or compared. These aspects will be discussed in the following section as they further inform decision makers in selecting a preferred option.

4.6 Qualitative benefits appraisal

As noted in Section 3.5, at present the post-school learning opportunities in Shetland, including vocational training, apprenticeships and further and higher education are provided by Shetland UHI. It was noted that, through the college, a wide range of training opportunities are available, ranging from short vocational training courses and apprenticeships to degree and post-graduate level courses. Many of these courses are delivered to meet the training needs of local employers, especially in sectors such as fishing, aquaculture, engineering, and construction.

However, it was also noted that most current learning opportunities are 'traditional' in nature, involving face-to-face delivery of learning material in a traditional classroom setting to a fixed timetable and with limited use of online resources. This limits accessibility to learning opportunities by persons who are unable to attend college on fixed days and times, which can be problematic for those in employment, who live in remoter areas, or who have other commitments (such as childcare). It can also be problematic for businesses who may have difficulty releasing multiple staff to attend college on fixed days. Finally, it limits the colleges' potential market largely to those living in Shetland who are not subject to any of these constraints. It was noted that the learning facilities in general are not well equipped or suited for the delivery of modern learning opportunities and that the campuses provided limited space for self-study and inadequate space for students to relax and socialise.

Continuing with business as usual, i.e., without investment, it is likely that these conditions would continue to slowly improve in a piecemeal fashion. Transformative redevelopment of the campuses on the other hand would offer significantly improved access to learning opportunities in Shetland and would radically enhance learners' experiences by improving college and community-based learning facilities and college capacity. The developments proposed in this project are aimed at improving the facilities on offer to meet the needs of learners, employers, businesses, and communities in the 21st century and to ensure their own long-term sustainability.

Many of these benefits are subjective in nature and not easily measured or monetised. Therefore, an alternative methodology must be employed to assess the qualitative benefits offered by the various options under consideration.

4.6.1 Methodology for Assessing the Qualitative Benefits

The method of assessing qualitative benefits (those categorised as Qualitative in Table 13) will use the following procedure:

Estimating benefit score

1. Each qualitative benefit (specified in Table 13) will be scored in terms of impact or importance out of 100. A high value representing those benefits deemed most impactful.
2. For each option, a judgement will be made of its individual capability to deliver those benefits. This judgement will be expressed as a likelihood score out of 10:
 - A score of zero indicating that the option in no way contributes to the realisation of the specific benefit
 - A score of 100 indicating that the option is the sole and complete determinate of realising the specific benefit.
3. For each option, the overall predicted benefit will be calculated as the sum of its scores across all benefits:

$$Benefit\ Score = \sum (Benefit\ Importance \times Likelihood\ Score)$$

A higher Benefit Score indicates a better performance in terms of effectiveness of realising qualitative benefits.

4.6.2 Qualitative benefits scoring

Specifying Qualitative Benefits and Scoring

The following table specifies this list of qualitative benefits for this project and scores them based on a subjective measure of their impact or importance.

Table 24: Qualitative Benefit Importance Scoring

Benefit Ref.	Qualitative Benefit Description	Impact Score
Q1	Learners <ul style="list-style-type: none"> Enhanced students' learning experiences in Shetland. 	80
Q2	Communities <ul style="list-style-type: none"> Promoting and facilitating the use of college facilities by communities to meet their own needs. 	40
Q3	<ul style="list-style-type: none"> Meeting the needs of communities by providing accessible learning opportunities. 	60
Q4	<ul style="list-style-type: none"> Strengthening links with Shetland's schools through school-college educational opportunities. 	70
Q5	Local Businesses <ul style="list-style-type: none"> Exploring new educational and training needs and developing new opportunities in Shetland both to meet the future needs of the islands' population and businesses 	60
Q6	<ul style="list-style-type: none"> Meeting the needs of both existing and new businesses in Shetland. 	70
Q7	<ul style="list-style-type: none"> Promoting and facilitating the use of college facilities by businesses. 	40

4.6.3 Analysis of key results

Estimating the Capability of each Option to Deliver Benefits

In the following table, a judgement is made of the capability of each option to deliver the benefits. The above Impact Scores are also applied and a Total Benefit Score for each option is calculated. The Total Benefit Score represents a subjective measure of how well each option is anticipated to deliver across the suite of qualitative benefits.

Table 25: Qualitative Benefit Evaluation

Benefit Ref.	Importance Score (weighting / 100)	Option 1.2 Student Spaces Only		Option 1.3 Learning Spaces Only		Option 1.4 Workshop Spaces Only		Option 1.5 Community Spaces Only		Option 1.6 Combination Option	
		Raw	Weight	Raw	Weight	Raw	Weight	Raw	Weight	Raw	Weight
Q1	80	8/10	6.4	7/10	5.6	6/10	4.8	5/10	4	9/10	7.2
Q2	40	5/10	2	2/10	0.8	2/10	0.8	8/10	3.2	8/10	3.2
Q3	60	3/10	1.8	8/10	4.8	5/10	4.8	8/10	4.8	8/10	4.8
Q4	70	3/10	2.1	7/10	4.9	2/10	4.9	7/10	4.9	7/10	4.9
Q5	60	2/10	1.2	6/10	3.6	8/10	3.6	6/10	3.6	8/10	4.8
Q6	70	2/10	1.4	5/10	3.5	8/10	3.5	6/10	4.2	8/10	5.6
Q7	40	2/10	0.8	4/10	4	7/10	1.6	7/10	2.8	7/10	2.8
Total Impact Score			15.7		27.2		24		27.5		33.3
Rank			5		3		4		2		1

4.6.4 Qualitative appraisal conclusions

Based on the above qualitative appraisal, the Option 1.6 was deemed likely to be the most effective mechanism for delivering the qualitative benefits that are deemed important to the project. Importantly, option 1.6 delivers consistently high scores across all qualitative benefits; unlike other options which may score highly on most benefits but poorly on a select few. This implies that implementing the full scope of work as detailed in Section 3, is the most effective method for delivering all of the qualitative benefits deemed strategically important to the project.

4.7 The preferred option

In the following table, the rankings arising from the Economic Appraisal (Section 4.6) and the Qualitative Benefits Appraisal (Section 4.7) are summarised and a judgement of the overall ranking of each option is presented.

Table 26: Summary of Overall Results

Evaluation Results	Option 1.2 Student Spaces Only		Option 1.3 Learning Spaces Only		Option 1.4 Workshop Spaces Only		Option 1.5 Community Spaces Only		Option 1.6 Combination Option	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Economic Appraisal	1.11	3	1.23	2	1.00	4	0.95	5	1.33	1
Qualitative Appraisal	15.7	5	27.2	3	24.4	4	27.5	2	33.3	1
Overall Ranking		5		2		4		3		1

The preferred option that has been selected is option 1.6: 'Combination Option [1.2 to 1.5]'.

This combination option involves the redevelopment of the existing college campuses in Shetland (Lerwick and Scalloway campuses) to enhance learning opportunities and student experiences in Shetland and to reduce barriers to learning. The option includes the redevelopment of student, learning and workshop spaces on both campus alongside community spaces, which are located both on campus and dispersed throughout Shetland.

This option performed best against the evaluation criteria, thus implying that it is the option that best delivers on the critical success criteria and the project objectives, matching strongly with the strategic case, and that it is affordable.

On reflection, it was noted that there remained much variability in how this option might be implemented, depending on budget apportionment between each redevelopment workstream and on specific redevelopment work conducted within each workstream. This variability continues to affect how effective the project might be in delivering on the strategic goals of the project whilst remaining good value for money. Therefore, at various stages throughout the project scoping phase, each item of proposed redevelopment work will be continued to be evaluated in terms of strategic fit with the project objectives. In doing so, the project scope will continue to be narrowed down to those items that were deemed by the project board and relevant stakeholders to be most effective, thus comprising the final scope of work presented herein. Funding will be sought from other sources to deliver aspects that are not covered in the core project.

4.8 Contribution to Carbon Emissions Targets

4.8.1 Carbon Control Mechanisms

The scope of work contained in the proposal largely involves the redevelopment, redesign and repurposing of existing spaces around the Lerwick and Scalloway campuses without making significant modification to the infrastructure of those buildings. However, it is understood that these redevelopment works will involve the procurement of a modest amount of building materials (principally wood and glass) for the redevelopment of some spaces. In addition to this, some IT equipment, tools, and furniture will be procured to outfit these spaces. Each of these items can be expressed in terms of their embodied carbon and therefore monetised, i.e., calculate the carbon emissions impact cost.

However, it is noted that the works generally involve the reuse of existing spaces and does not include replacing or improving building infrastructure or those systems affecting the thermal properties of the buildings (such as HVAC, window glazing, insulation, etc.) and as such the carbon cost of the project is likely to be minor.

Commensurate with the minor impact, the carbon cost of the redevelopment works has been estimated based on the use of proxies instead of undertaking a detailed item-by-item lifecycle analysis. This process estimation allows us to estimate the embedded carbon in the project and attribute a carbon cost to the works. The carbon cost can then be included in the Economic Assessment. The results of this proxy based carbon cost estimation is presented in the table below.

It is noted that whilst the carbon cost of the redevelopment is not anticipated to dramatically alter the outcome of the economic assessment, it is felt that quantifying the carbon in this way sets a good precedent for future projects undertaken by the College and its partner organisations.

Table 27: Estimation of Embodied Carbon

Item	Wood (Partition walls and furniture)			
Proxy	Timber – average of all data (211 data points) Plain wood/timber (softwood and hardwood), United Kingdom Source: ICE database August 2019, V3.0 0.49 kg CO ₂ e / kg			
Tranche Size	5000 kg			
Further Comment	An additional factor of 40% has been added to accommodate uncertainties such as incremental increase in tranche size or additional transportation.			
Total Embodied Carbon / Cost	3.430	ton CO ₂ e	£850.64	2022 Price Carbon Value*
Item	Glass Panels			
Proxy	Glass General Regular Glass Panes, United Kingdom Source: ICE database August 2019, V3.0 1.44 kg CO ₂ e / kg			
Tranche Size	1000 kg			
Further Comment	An additional factor of 40% has been added to accommodate uncertainties such as incremental increase in tranche size or additional transportation.			
Total Embodied Carbon / Cost	2.016	tons CO ₂ e	£499.97	2022 Price Carbon Value*

Item	Miscellaneous Classroom Equipment (IT Equipment, Computers, Hand tools etc.)			
Proxy	Typical Dell Laptop, Europe Source: https://i.dell.com/sites/content/corporate/corp-comm/en/Documents/dell-laptop-carbon-footprint-whitepaper.pdf 320 kg CO ₂ e / unit	Typical Dell Desktop, Europe Source: https://www.dell.com/learn/us/en/vn/corporate~corp-comm~en/documents~dell-desktop-carbon-footprint-whitepaper.pdf 720 kg CO ₂ e / unit		
Tranche Size	50 units of each			
Further Comment	<p>There is little data available on the carbon embodied in materials outside of the construction industry. However, the American computer company Dell does state the embodied carbon in all of its computers, basing its calculations on materials, manufacturing, transportation, and their use. They also provide a 'typical' version of both laptop and desktop, which serves us well to use a proxy.</p> <p>This proxy has been deemed appropriate for all classroom equipment as it judged to provide a conservative estimate of embodied carbon. This is based on the assumption that the high carbon cost incurred from its regular use, will mean that a desktop or laptop will have a higher carbon cost than other items included in this category.</p> <p>To provide a further layer of confidence, an additional 40% will be added to accommodate unforeseen carbon costs</p>			
Total Embodied Carbon / Cost	72.8	tons CO ₂ e	£18,054.40	2022 Price Carbon Value*
Totals				
Total Embodied Carbon / Cost	78.246	tons CO ₂ e	£19,405.01	2022 Price Carbon Value*

* Based on the 2022 central series carbon value of £248 per tonne of CO₂.
<https://www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation>

Each workstream in the redevelopment project will be attributed a fraction of the Total Embodied Carbon based on its cost contribution to the project as a whole.

With regards to Carbon Control mechanisms, this proposal is deemed to marginally increase the direct carbon contribution of those redeveloped spaces, but it is felt that the new opportunities for Carbon Influencing, discussed next, are a significantly greater output of these works – though it is not possible to robustly quantify the impact of these influencing mechanisms.

4.8.2 Carbon Influencing Mechanisms

There are various scenarios through which this project has the potential to reduce carbon emissions that are outside of the institution's direct control. These scenarios are broadly defined as carbon influencing mechanisms. Carbon influencing mechanisms may take the form of supporting or

influencing external parties (e.g., people, projects, businesses, etc.) to enhance their capability to reduce carbon emissions themselves. It should be noted that the impact of carbon influencing mechanisms is not easily quantified but none-the-less present a compelling argument for ways in which this project has a positive impact. Some of these mechanisms are discussed below:

1. This project will enable collaboration with other Islands' deal projects (such as Islands' Centre for Net Zero, Shetland Clean Energy Project and TalEntEd Islands), each of which individually makes a positive contribution to reducing carbon emissions. These collaborations may take the form of joint research projects, sharing of information or sharing of skills and resources to support future projects. Shetland UHI staff is already in close contact with these other Islands' deal projects to explore these collaboration opportunities and intends to maintain these relationships going forward to fully realise the collaborative impact that can be achieved when these organisations come together.
2. The redevelopments of learning spaces and workshop spaces enables the new teaching or better teaching of courses such energy production, renewables, sustainability, aquaculture, alternative energy technologies and energy efficiency in the built environment. It is suggested that student's graduating from these courses have a strong potential to make a positive contribution to carbon reduction targets as they work in their future careers.
3. Through the redevelopment of learning spaces and workshop spaces this project also strives to meet the training needs of current and emergent local business sectors including renewables, decommissioning and satellite launching. In doing so, this project will contribute to economic development and inclusive growth in the islands as well as to the zero-carbon economy.
4. Through the deployment of new classroom technologies this project increases the capability to access these courses remotely. Through this mechanism, it is suggested that barriers to education (such as geography or competing commitments) can be partially mitigated, increasing access opportunities to courses. In addition, this change has the capability to reduce the travel requirements of students gaining an education at Shetland UHI.
5. Through exploring ways in which the project creates spaces that the college can open up for use of the local community and local businesses there is the potential to mitigate the need in those groups to purchase or develop infrastructure or equipment themselves. In this sense, this collaboration might directly offset a capital carbon cost that would be incurred in those third parties.

It should be noted that it is not possible to robustly quantify the impact of these carbon influencing mechanisms. This is due to our uncertainty surrounding to what extent these narratives will materialise. The carbon emissions savings noted above are each highly dependent on 3rd parties and the choices that they make. None the less, it is believed that the discussions above present a compelling argument demonstrating several potential ways in which this project could have a positive impact.

4.8.3 Management of Carbon Emissions

Requirements for best practices in terms of Carbon Emissions will be placed on the contractor for works or suppliers of equipment as a means of minimising the whole life carbon embodied in any of the redevelopment works. These specific contractual clauses are noted in Section 5.6.1 of the Management Case.

In accordance with those contractual requirements, suppliers of equipment or contracts will be expected, where possible, to provide realistic predictions of the carbon emissions cost embedded in the works they conduct or products they supply. In doing so, the project implementation team will

be able to compare the emerging as-built carbon cost of the redevelopment work with the benchmarked carbon cost of the project (estimated in Section 4.8.1). The team will then be able to continuously manage carbon emissions, informing the decisions that impact our supply chain and ultimately seek to minimise the carbon emissions cost of the project.

4.8.4 Carbon Categorisation of Proposal

This proposal has been reviewed in terms of its Carbon Categorisation following SG Deals carbon guidance. This categorisation system is based on the concepts of *control* and *influence*, i.e., the likely controllable carbon emissions impact of a project and the influence a project will have on carbon emissions beyond its control boundary.

- With regards to **Carbon Control** the proposal has been deemed to be **Category 3**, i.e., ‘Capital carbon increase then operationally net zero’, although it is considered that the capital carbon increase is marginal and similar in scale to business-as-usual.
- With regards to **Carbon Influence** the proposal has been deemed to be **Category A**, i.e., ‘leads to wider carbon emissions reductions’ - though it is not possible to robustly quantify the impact of these influencing mechanisms at this stage.

Appendix K presents the justification for this categorisation.

5. The Commercial Case

5.1 Introduction

The Campus Redevelopment Project will deliver against all of the key objectives set out in the Strategic Case.

The services to be procured under the project with the greatest financial significance relate to the redesign and refurbishment of the Lerwick and Scalloway campuses alongside the purchasing and installation of new equipment.

UHI standard procurement mechanisms will be used in combination with taking consultation and advice from Shetland Islands Council procurement specialists where appropriate. It may be possible to achieve cost savings during procurement by contracting services in collaboration with other Islands Deal projects on Shetland or with other UHI projects. Where feasible these cost savings mechanisms will be pursued.

5.2 Required services

The required services for the refurbishment aspects of the project are standard design and build services for a capital project. In addition to this, there will be the procurement of specialist (e.g., workshop machinery) and non-specialist (e.g., classroom furniture) equipment. Equipment will be procured in accordance with the standard policies in the sector with review and approval by UHI procurement teams.

Note that responsibility for the post-completion operation and maintenance of the equipment will rest with Shetland UHI – excluding the contracted periods of warranty and rectification of defects – it is expected that Shetland UHI will integrate the operation and maintenance costs into their normal business as usual annual operating budget without significant impact.

5.3 Potential for risk transfer

A strategy of identifying risks, determining a mitigation strategy and assigning or sharing risk to the party with the skills and expertise to deal with it will be followed. The proposed general strategy is outlined below:

Design and Construction of Redevelopment Works: During the design phase key risks will be investigated to identify their magnitude and the proposed method of mitigation. A decision will be made as to whether the risk will be retained by Shetland UHI, passed onto the contractor or shared. To clearly identify and manage risks during this phase the following mechanisms will be used:

- A Request for Services (or similar) document will be issued to contractors – clearly specifying the required services – and identifying risks (including ownership).
- The designer will submit a Proposal for works (including 3D plans where appropriate) for all significant aspects of the works.
- The Proposal will be reviewed by the procurement team for compliance with the Requisition for Services document.
- Following review and approval the Proposal will be accepted in writing and a design freeze will be employed. Further design iterations will require a formal contract variation.

In following this procedure, the responsibility for accurately developing a design requirement specification will fall upon Shetland UHI whilst the risk associated with design and construction will lie with the contractor.

Transition: Responsibility for delivery of contracted services will lie with the contractor. For each aspect of the project, formal review and sign-off will be required by a workstream lead of Shetland UHI. By this mechanism, risk will be shared between both parties.

Programme of Works: Responsibility for managing the pre-tender programme will remain with Shetland UHI. Liability for delay post tender will generally lie with the contractor subject to standard industry conditions relating to issues such as exceptional weather, strikes and force majeure.

Cash Flow: Responsibility for managing cash flow will remain with Shetland UHI with stage payments made according to progress against milestones.

Table 28: Risk Transfer Matrix

Risk Category	Potential Allocation		
	Public	Private	Shared
1. Design risk			✓
2. Construction and development risk			✓
3. Transition and development risk			✓
4. Availability and performance risk			✓
5. Operating risk	✓		
6. Variability of revenue risk	✓		
7. Termination risk	✓		
8. Technology and obsolescence risk			✓
9. Control risk	✓		
10. Residual value risk	✓		
11. Financing risk	✓		
12. Legislative risk	✓		
13. Other project risk	✓		

5.4 Proposed charging mechanisms

It is envisaged that a Fixed Price Contract will be employed for both contractors of redevelopment works and suppliers of equipment, where equipment has any on-going operational costs. Staged payments will be made in accordance with agreed milestones in delivery of goods and services.

5.5 Proposed contract lengths

It is proposed that the project's construction & procurement phase will be spread over a 2 year period.

Project Team: It is envisaged that a project manager will be appointed to oversee the project throughout this phase and their contract will span the duration of the phase, i.e., approximately 24 months. A project design team will also be employing during this phase and their contracts may vary, depending on need, between 6 months and 24 months.

Contractors: It is envisaged that multiple contractors may be used for individual aspects of the redevelopment works. In general, this would result in anticipated contract lengths varying from approximately 3 to 12 months, depending on the works required. However, if cost savings can be realised through utilising a single contract that covers several aspects of the redevelopment works this may be pursued, resulting in a contract length of up to the full duration of the construction & procurement phase, 24 months.

5.6 Proposed key contractual clauses

Contractors for the redevelopment works and suppliers of equipment will be engaged via standard UHI procurement mechanisms. Contracts typically will include appropriate warranties from the contractor, design consultant and any sub-contractors. Generally, a minimum contracted period of warranty and rectification of defects clause will stipulate 12 months. Appropriate levels of professional indemnity and other insurance will be obtained.

Carbon emissions have been estimated based on available data at this stage. The actual carbon emissions from the redevelopment work will be confirmed following practical completion and reported to the SG Deals PMO.

5.6.1 Key clauses and information relating to carbon emissions impact

Where new building works are being undertaken, contractors will be required to apply requirements set forth in the Royal Institution of Chartered Surveyors (RICS) Whole Life Carbon Professional Statement. This document addresses the emerging understanding of the importance of embodied carbon in building projects and with other approaches to building sustainability, e.g., BREEAM and the forthcoming Net Zero Public Buildings Standard.

The RICS whole life carbon approach identifies the best overall combined opportunities for reducing carbon and helps to avoid any unintended consequences of focusing on operational emissions alone. The specific objectives of the RICS Professional Statement are to:

- provide a consistent and transparent whole life carbon assessment implementation plan and reporting structure for built projects in line with EN 15978 (Sustainability of construction works. Assessment of environmental performance of buildings. Calculation method.).
- enable coherence in the outputs of whole life carbon assessments to improve the comparability and usability of results.
- make whole life carbon assessments more 'mainstream' by enhancing their accessibility and therefore encourage greater engagement and uptake by the built environment sector.
- increase the reliability of whole life carbon assessment by providing a solid source of reference for the industry.
- promote long-term thinking past project practical completion, concerning the maintenance, durability and adaptability of building components and the project as a whole; and

- promote circular economic principles by encouraging future repurposing of building components, as well as of the project as a whole, through quantifying their recovery, reuse and/or recycling potential.

Further information on these standards and their requirements can be found at:

- <https://www.rics.org/uk/upholding-professional-standards/sector-standards/building-surveying/whole-life-carbonassessment-for-the-built-environment/>
- <https://www.breeam.com/>
- <https://www.scottishfuturestrust.org.uk/page/net-zero-public-sector-buildings-standard>

5.7 Personnel implications (including TUPE)

There will be a need to employ delivery team staff during the project design, construction, and procurement phase to ensure adequate delivery of the campus development project to fully realise the project's strategic aims. The responsibilities of these staff will include:

- Project management
- Specification of requirements
- Review and approval of works

An evaluation of additional staffing needs is required to identify any new employment needs required to fulfil these roles.

It is anticipated that UHI support staff, including administrative staff and procurement/contractual specialists will support the project in their existing roles with UHI. Therefore, it is not anticipated that additional staff will be required to fulfil those functions.

5.8 Procurement strategy and implementation timescales

Contractors for the redevelopment works and suppliers of equipment will be engaged with via standard UHI procurement mechanisms.

It is anticipated that all aspects of the supply of goods and services will be tendered via competitive tendering in accordance with the financial regulations set out in accordance with APUC (Advanced Procurement for Universities and Colleges). Competitive tendering will likely use Public Contracts Scotland framework where appropriate to do so.

It is anticipated that the implementation timescale for these works will be spread over a two year period to minimise the impact on business as usual functions of the College.

5.9 FRS 5 accountancy treatment

Financial models have been developed in accordance with FRS 5/102 which states that balance sheets represent the substance of the entity's transactions. All identified assets which underpin the delivery of this project are included on the balance sheet.

6. The Financial Case

6.1 Introduction

In this section, a projection of the financial implications of the preferred option (as set out in the economic case) and the proposed deal (as described in the commercial case) is set out. Note that financial forecasts are based on preliminary designs, and further refinement of these forecasts will be required for the full business case.

The financial income and expenditure projection is presented in Appendix A for reference.

The fidelity of financial forecasts carries some uncertainty at this stage, as suppliers and contractors for the redevelopment work have yet to be selected and costs for materials may vary between OBC submission date and implementation. However, the financial forecasts presented herein have been developed with advice taken from numerous knowledgeable or experienced sources in the endeavour of accurately estimating the cost of each stage of the project. These sources and considerations include:

- Potential suppliers of equipment – in particular: suppliers of classroom equipment, classroom furniture, campus furniture, IT equipment, Immersive Classrooms and workshop equipment.
- Potential contractors – in particular: a designer / architect has been contacted to work up feasibility designs for the Lerwick and Scalloway campus redevelopment works.
- Comparison with similar projects – in particular: comparison with recent development of Welding Workshop at the Scalloway campus and comparison with other Newton Room projects across the Scottish Highlands
- With knowledgeable insight provided by UHI Procurement and Shetland Islands Council's Asset Management Officer.
- An allowance in the costs has been made for higher costs of delivery of capital projects experienced in Shetland. (The Shetland Islands Council uses a 'Shetland Factor' in estimating building costs to cover factors such as the additional transportation costs to the islands of materials, necessary labour and specialised contractors plus costs associated with delays due to weather or late deliveries. Typically, these are expected to add at least 25% to islands-based capital projects.)
- Further consideration in these forecasts has been given to the UK-wide increase in supply costs experienced in 2021, which have been caused by global materials shortages and shipping constraints as outlined in the RICS Insight into Building Cost Information Services (BCIS) estimates (<https://www.rics.org/uk/products/data-products/insights/the-possible-impacts-of-materials-shortages-in-the-uk/>) published 07-May-2021.

Under each redevelopment workstream scope of work, see Appendices E through J, the sources of cost estimates are outlined.

6.2 Impact on the organisation's income and expenditure account

The impact on the College's income and expenditure account is affected by the following anticipated build phase scheduling. Note that a summary of expenditure and income is presented in Appendix A.

Table 29: Summary of Expenditure Schedule

Description	Estimated Capital Cost – Expenditure Scheduling		
	Year 1 (2022/23) (£ 000)	Year 2 (2023/24) (£ 000)	Year 3 (2024/25) (£ 000)
Student Spaces	-	240	-
Learning Spaces – classrooms	300	300	-
Learning Spaces – Newton Room	203	-	-
Learning Spaces – Immersive Classroom	120	-	-
Learning Spaces – Aquaculture	160	-	-
Workshop Spaces – Construction	100	-	-
Workshop Spaces – Engineering	-	300	-
Community Spaces – on campus	-	120	-
Community Spaces – mobile equipment	60	-	-
Community Spaces – Learning Centres	-	100	-
SUB TOTAL	943	1,060	0

6.3 Impact on the balance sheet

The scope of redevelopment works detailed herein is fully funded by the deal ask. Funding expenditure contained within the deal ask is broken down in the following section.

In addition to this, UHI is providing funding for staff to scope, manage and deliver the project as is necessary.

6.4 Overall affordability

As outlined in Appendix A, it is anticipated that the redevelopment work, i.e., the construction phase, will be spread over two years with early work being delivered in spaces that are not utilised or underutilised at the time of work being conducted thus minimising disruption to the normal business of the college. The proposed cost, broken down into project phases, is tabulated below:

Table 30: Phase Breakdown of Estimated Capital Costs

Description	Estimated Capital Cost - Phase Breakdown			Risk Cost and Contingency (£,000)
	Design (£,000)	Build (£,000)	Operational (£,000)	
Student Spaces	-	240	-	-
Learning Spaces – classrooms	-	600	-	-
Learning Spaces – Newton Room	-	203	-	-
Learning Spaces – Immersive Classroom	-	120	-	-
Learning Spaces – Aquaculture	-	160	-	-
Workshop Spaces – Construction	-	100	-	-
Workshop Spaces – Engineering	-	300	-	-
Community Spaces – on campus	-	120	-	-
Community Spaces – mobile equipment	-	60	-	-
Community Spaces – Learning Centres	-	100	-	-
SUB TOTAL	0	2,003	0	0
TOTAL	2,003			

At present it has been assumed that the project will incur VAT and that this will be payable at 20%. Further advice on VAT payable will be obtained prior to FBC.

7. The Management Case

7.1 Introduction

The project is an integral part of the Islands Deal for Shetland, which covers a portfolio of projects for the delivery of economic prosperity for the Shetland Islands. As such, commensurate management arrangements have been developed to outline the required actions to ensure the successful delivery of the project in accordance with best practice, to manage risks, and to maximise the expected benefits in implementation.

7.2 Programme management arrangements

This project is strategically aligned to a various project, which can be grouped by their local, regional and organisational contexts. The campus redevelopment project is critical to provide the skilled workforce necessary to support the islands economy post-Islands Deal and thus enable the successful delivery of other Islands Deal projects' long term goals. Examples include direct synergies such as with the creation of a new Space Innovation Campus and the Islands Centre for Net Zero project, both of which will benefit from personnel skilled in STEM subjects and indirect contributions to the island economy increasing trade with food & drink, tourism, creative industries, and life sciences. Due to this interconnectedness, this project will participate in several oversight groups for both reporting progress and to continue to explore means in which the various projects can form synergies to maximise the realisation of benefits. The various oversight groups and their scope of interest is summarised in the following table:

Table 31: Outline of Oversight Group Participation

Scope of Interest	Steering Group
Islands Deal Projects based in Shetland	Shetland Islands Council Programme Board led by Shetland Islands Council
Islands Deal Projects throughout the Scottish Islands	Pan Islands Steering Group led by Anne Murray (Islands Deal Programme Director)
Projects led by the University of Highlands and Islands.	Islands Deal UHI Programme Board

The Islands Deal UHI Programme Board has the following remit:

The Islands Deal UHI Programme Board, on behalf of University Court will provide governance control and oversight of the Programme implementation and its subsequent operation to ensure the Programme meets the outcomes specified in the Full Business Cases. It is responsible for overseeing compliance with the Islands Deal legal agreements and managing risk.

The UHI Programme Board's main responsibilities are to:

- monitor the timely implementation and delivery of Programme outcomes fulfilling qualitative and quantitative criteria
- ensure the Programme fulfils compliance requirements with internal and external regulations

- ensure adequate resourcing of the Programme for its effective delivery
- monitor overall Programme expenditure against budget, and approve budgetary change requests beyond the authority delegated to the Operations Committees
- monitor the Programme’s risk register, issues and change control log, and address risks escalated by the operations committees
- resolve and escalate any other issues relating to implementation progress, budget and compliance in accordance with the university’s management and governance systems
- report to the Islands Deal Programme Board any relevant issues that require the attention of the Programme funder
- provide management, guidance and advice to the Operations Committees

The role and responsibilities of the Islands Deal UHI Programme Board are described in the following table:

Table 32: Islands Deal UHI Programme Board - Roles and Responsibilities

Name	Role
Donna Heddle	Chair and Acting Vice Principal (Research and Impact)
John Kemp	Interim Chief Operating Officer, Vice Principal Further Education and Project lead
Jane Lewis	Principal Shetland UHI and Project lead
Sue Macfarlane	Principal Lews Castle College and Project lead
Claire Kemp	AP Orkney College and Project lead
Beth Mouat	Islands Strategy Director and Project lead
Malcolm Innes	Director Centre for Rural Creativity and Project lead
Doug Rattray	Project team, Lews Castle College and Shetland UHI
Gregg Arthur	Project team, Shellvolution
Matt Tyrer	Project team, Skills, Talent Attraction and Entrepreneurialism
Gayle Sinclair	Finance

The project lead will present an update to the various oversight groups periodically; generally the period between updates will be 3 to 4 weeks. The generic form of the update will be as follows:

- a) Project Lead to present a summary of progress on project
- b) Project Lead to present a summary of progress on authoring of the Business Case
- c) Project Lead to present a summary of key tasks and planned work for the subsequent period
- d) Oversight Group to review any key issues or risks pertinent to their scope of interest

The period of time between updates and the format of the update will be response to emerging project tasks and urgency, e.g., the oversight group may choose to meet more regularly when a critical or time-sensitive task is imminent.

7.3 Project management arrangements

At a local level, a Shetland UHI Project Team will oversee local delivery of the work. This group shall also report to the Finance and General Purposes sub-committee of the College Board.

Table 33: Shetland UHI Project Team

Role	Position
College Principal and CEO	Jane Lewis (Principal and CEO)
Project Lead	Doug Rattray
Head of Central Support Services	Glen Gilfillan
Operations Manager	Gemma MacGregor
Business Development and Projects Officer	Brendan Hall
Student Representative	TBC
Workstream Leads	
- Teaching Spaces	Euan Robertson
- Workshop Spaces	Laura Burden & Brendan Hall
- Hospitality Speciality	Emilie Garrison
- Childcare Speciality	Susan Menary
- The Hatcheries	Gregg MacArthur
- Learning Centres	Andrew Anderson

PRINCE 2 methodology will be used to monitor the project and ensure delivery is timely and to specification.

7.3.1 Project reporting structure

The workstream leads and project lead will present an update to the Shetland UHI Project Team periodically; generally the period between updates will be 3 to 4 weeks. The generic form of the update will be as follows:

- a) Project Lead to present a summary of progress on project
- b) Workstream Lead to present a summary of progress on their workstream
- c) Project Lead to present a summary of progress on authoring of the Business Case
- d) Project Lead to present a summary of key tasks and planned work for the subsequent period
- e) Shetland UHI Project Team to review any key issues or risks pertinent to their scope of interest

The period of time between updates and the format of the update will be response to emerging project tasks and urgency, e.g., the oversight group may choose to meet more regularly when a critical or time-sensitive task is imminent.

7.3.2 Project roles and responsibilities

The project lead is selected for their knowledge and specialist expertise in developing their particular project within the deal. The project lead is responsible for organizing, planning and overseeing the work on the project. They will coordinate and manage the project working groups who complete project tasks and they are responsible for making sure the project is delivered in accordance with the stated aims and on time. The project lead will report progress to the various oversight groups and the Shetland UHI Project Team.

The Islands Deal UHI Programme Board will provide oversight to the project, reviewing progression against time, cost, quality, and risk. The steering group will consist of key stakeholders including the College Principal and CEO and the College Head of Finance.

Several project working groups will be established for the discrete packages of work within the project. The working groups will establish the need for change and will make proposals for the redevelopment works.

7.3.3 Project plan

At this stage of project development, the year in which specific workstreams of the project will be developed is well understood. The milestones for the project are based on the completion of the campus redevelopment plans specified herein under each workstream. Note that main constraint to redevelopment works will be the aim of minimising disruption to the normal running of the college, not necessarily the completion of preparatory work or dependant activities. As such, these milestones represent the completion of a standalone package of redevelopment work.

Table 34: Key Milestones in Project Delivery

Milestone	Description	Due Date
Student Spaces	Redevelopment of the student spaces at the Lerwick and Scalloway campuses.	End of Year 2
Learning Spaces – classrooms	Outfitting of the general purpose classroom spaces to an idealised specification.	End of Year 2
Learning Spaces – Newton Room	Creation of a fully outfitted Newton Room with initial curriculum and support agreements in place.	End of Year 1
Learning Spaces – Immersive Classroom	Creation of a fully outfitted Immersive Classroom.	End of Year 1
Learning Spaces – Aquaculture	Redevelopment of the hatcheries building	End of Year 1

Workshop Spaces – Construction	Redevelopment of the construction workshops	End of Year 1
Workshop Spaces – Engineering	Redevelopment of the engineering workshops	End of Year 2
Community Spaces – on campus	Redevelopment of the spaces on campus to be used for local community purposes	End of Year 2
Community Spaces – mobile equipment	Development of a set of mobile equipment and facilities, supported by transport provision.	End of Year 1
Community Spaces – Learning Centres	Redevelopment of the rural learning centres	End of Year 2

7.4 Use of special advisers

The following special advisers have been utilised by this project.

Table 35: Use of Special Advisors

Specialist Area	Adviser
Financial	Shetland UHI, Head of Finance
Technical	
Procurement and legal	Robert Sinclair, Shetland Islands Council
Business assurance	
Other	

7.5 Outline arrangements for change and contract management

Prior to any work starting on any one of the redevelopment workstreams, a Scope of Work (SOW) will be produced by the work owner, which will have been reviewed and approved by the project board. It is understood, however, that there may still be situations in which a change to the SOW is necessary for the benefit of all parties. In this case, the following contract change process will be followed.

1. A draft Contract Change Order (CCO) will be produced that records all details of the request for change, e.g., affected persons, details of change, reasons and impacts on timescales, cost, quality, etc.
2. The draft CCO will be assessed by the contract holder to establish whether or not the change can be accommodated within the existing contractual arrangements. If the draft CCO cannot

the accommodated within the existing contractual arrangements the contractual impact will be estimated for information.

3. The draft CCO along with estimated contractual impact will be presented to the board for review and provisional authorisation or rejection.
4. If provisionally authorised, the draft CCO will then be presented to the relevant Islands Deal authorities for review and authorisation or rejection.
5. Feedback from the project's review processes will be given to the initial party making the change request.
6. If all parties are in agreement, the draft CCO will be finalised and issued, dated, and signed off by relevant parties for inclusion alongside the SOW.
7. If necessary, a lessons learned process will be undertaken and attended by relevant parties, such that they may identify likely constraints, realisable benefits or potential risks that need to be taken into consideration in other aspects of the project.

7.6 Outline arrangements for benefits realisation

To ensure that the college and the Shetland community receive greatest value from the campus redevelopment project, the benefits of the project will be identified, measured and managed after the works have been completed. A Benefits Realisation Plan will be authored, and a suitable person will be nominated as responsible for the on-going management of the Plan. The specifics of the Benefits Realisation Plan will be established with relevant stakeholders but will generally adhere to the following principles, the plan will:

1. Identify and record the desired benefits.
2. Identify the stakeholders affected by each benefit
3. Identify the outcomes and enablers required for the realisation of each benefit.
4. Record the metric by which each outcome is to be measured – ideally these metrics should have baseline values to compare against measured pre-project.
5. Allocate a responsible person to each benefit where the Plan Manager is not best suited to be directly responsible for measuring the benefit themselves.
6. Prioritise benefits against each other where appropriate to do so.
7. Identify the expected delivery of benefits

7.7 Outline arrangements for risk management

To ensure that project risks are adequately identified and managed a planned and systematic approach to identification, evaluation and control of risks facing the redevelopment project will be adopted as a means of minimising costs and disruption to the project caused by undesirable or unexpected events.

A risk register will be created that is a live document which identifies and describes individual risks, classifies risks, scores their anticipated impact and their likelihood of occurring and identifies mitigating strategies. For high likelihood risks – whose mitigated likelihood score remains greater than or equal to 4/5 – contingency plans will be created for implementation on their occurrence.

The project manager will be responsible for developing and maintaining the risk register. The project manager will also be responsible for periodically reporting the risk register to the project board for review and approval.

The project board will be responsible for reviewing the risk register on a periodic basis – risks will be reviewed at each project board meeting on a circa monthly basis. The project board will provide feedback on each risk and ultimately will be responsible for the approval of the on-going risk management strategy.

Workstream leads will be responsible for highlighting emergent risks, monitoring risks on an on-going basis and implementing the mitigating strategies identified in the risk register.

Where contingency plans are required, these will be developed between the workstream leads and the project manager and will be approved by the project board.

7.8 Outline arrangements for post project evaluation

The purpose of this post-project evaluation is to:

- evaluate the effectiveness of the project in realising the proposed benefits as outlined in the economic appraisal.
- compare planned costs and benefits with actual costs and benefits to allow an assessment of the project's overall value for money to be made.
- identify particular aspects of the project which have affected benefits either positively or negatively; recommendations for future projects can then be derived.
- reveal opportunities for increasing the project's yield of benefits, whether they were planned or became apparent during or after implementation, and to recommend the actions required to achieve their maximisation.

A pair of workshops will be conducted, the post implementation review (PIR) and the project evaluation review (PER), to achieve these tasks.

7.8.1 Post implementation review (PIR)

A PIR will be conducted to evaluate whether the redevelopment work has successfully achieved its strategic objectives as stated in section 3, how effectively these objectives were met and identify any further work or changes to working practices that could facilitate a greater realisation of these objectives. A PIR workshop will be conducted, attended by college management and users of the new facilities such as staff, student representatives and representatives of community users. At this workshop, the group will review the original strategic objectives of the redevelopment project and seek to evaluate:

- How well the redevelopment works have achieved their stated objectives?
- How satisfied are the users with the new facilities and equipment?
- Are there any areas in which new equipment or facilities require further development to enable the strategic objectives?
- Are there any working practices that need to be changed to enable the strategic objectives?

- Is there any additional staff or user training that is required to enable the strategic objectives?

The output of this workshop will be a report, issued to college management detailing the groups answers to these questions and outlining any lessons learned applicable to future redevelopment works at the college.

7.8.2 Project evaluation reviews (PERs)

A Project Evaluation Review will be conducted in accordance with PRINCE2 guidance at project closure to review the effectiveness of the project management processes employed throughout project implementation. A lessons-learned workshop will be conducted, attended by the project manager, the Shetland Campus Project Board and relevant members of the UHI led pan-islands steering group. At this workshop the groups will review the original intent as agreed in the initiation stage of the project, and the approved changes that occurred as the project progressed. A Lessons Report will be produced that will record:

- A summary of the project management performance.
- An assessment of the results of the project against the expected benefits as specified in the business case.
- A review of how the project performed against its stated aims.
- A review of team performance.

7.9 Gateway review arrangements

A gateway review process will be implemented to examine the project at key decision points throughout its lifecycle. The gateways, their description and the expected reviewers is outlined in the table below:

Table 36: Summary of Gateway Reviews

Gateway	Description	Reviewers
1: Strategic Business Case	Gate 1 concerns the conception and feasibility of the project and investigates the strategic direction, concept development and proposed investment.	<ul style="list-style-type: none"> • Scottish Government • Shetland Islands Council • UHI • Shetland UHI
2. Outline Business Case	Gate 2 concerns the projects developing scope of work and investigates the robustness of the project design to meet its stated strategic goals.	<ul style="list-style-type: none"> • Scottish Government • Shetland Islands Council • UHI • Shetland UHI
3: Full Business Case	Gate 3 concerns the project's completed scope of works and confirms the robustness of the project	<ul style="list-style-type: none"> • Scottish Government • Shetland Islands Council

	design to meet its stated strategic goals.	<ul style="list-style-type: none"> • UHI • Shetland UHI
4: Tender Decision	Gate 4 concerns the procurement of new equipment or facilities and the contracting of redevelopment works. This gate ensures that the procurement approach is appropriate to fulfil the stated Scope of Work.	<ul style="list-style-type: none"> • Shetland Islands Council • UHI • Shetland UHI
5: Readiness for Service	Gate 5 concerns the approval of the procured equipment, facilities and redevelopment works confirming that the works satisfactorily fulfil the contracted Scope of Works.	<ul style="list-style-type: none"> • Shetland Islands Council • UHI • Shetland UHI
6: Benefits Realisation	Gate 6 concerns the post project evaluation, conducted at an agreed time after project completion and concerns the investigation of the efficacy of the project with regards to benefits realisation.	<ul style="list-style-type: none"> • Shetland Islands Council • UHI • Shetland UHI • Users • Stakeholders

7.10 Contingency plans

As specified in Section 7.7, contingency plans will be developed for all risks with a residual (unmitigated) likelihood score of greater than or equal to 4/5. These contingency plans will be recorded as an appendix to the risk register and reviewed regularly as part of the risk management arrangements.

Contingency plans should be accompanied by an estimation of contingency budget alongside an estimation of the impact on project delivery time.

Should a risk appear imminent or in fact be realised, contingency plans will be developed further, and approval for implementation will be sought from the project board, programme board and, if impacting on project budget, the funding body.

7.11 Communications Plan

The project manager will be responsible for all internal project communication and will report on project progress on a periodic basis to the project board and programme board as per the arrangements detailed in Section 7.3.

The project lead, Principal and CEO of Shetland UHI, will be responsible for external communication.

Table 37: Communication Plan

Activity	Description	Planned Date
Project Board meeting	<p>Periodic progress reporting to the local project board. Meetings will be conducted face-to-face or via MS Teams as appropriate. Verbal progress report will include:</p> <ul style="list-style-type: none"> • Summary of progress • Progress during preceding period • Expected progress in following period • Project timescales • Risks 	Circa 3 week basis
Programme Board meeting	<p>Progress reporting as above. Programme Board meeting will be attended by both the project manager and the project lead, Principal and CEO of Shetland UHI.</p>	Circa 3 week basis

Authorised Signatories

Project Lead

Name:

Signature:

Date:

Contract Signatory

Name:

Signature:

Date:

Finance Director (or other senior Finance Representative)

Name:

Signature:

Date:

Appendix A: Summary of Income and Expenditure

Table 38: Project Income and Expenditure Table

Summary Expenditure and Income Profile (£000)											
Type	Total	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Expenditure Profile											
Capital exclusive of VAT	2,003	943	1,060								
VAT	0										
Total	2,003	943	1,060	0	0	0	0	0	0	0	0
Source of Funding Profile											
Agreed ID funding	2,003	943	1,060								
ERDF	0										
ESF	0										
Others	0										
Others	0										
Others	0										
Others	0										
VAT reclaimable	0										
Total	2,003	943	1,060	0	0	0	0	0	0	0	0
Control Check (1)											
Control Check (2)											
Note :	Accounting period starts in April and finishes in March : for example 2019/20 accounting period covers 1st April 2018 to 31st March 2019										
	Control Check (1) : VAT expenditure (A) should match with VAT reclaimable (C)										
	Control Check (2) : Total expenditure (B) should match with Total Funding (D)										

Appendix B: Equality Impact and Fairer Scotland Duty Impact Assessment

Part 1: Background

Section A	
Project name	Shetland Campus Redevelopment Project
What is the purpose of the project?	<p>The primary objectives of the project are:</p> <ul style="list-style-type: none"> • Enhancing students’ learning experiences in Shetland by improving access to learning opportunities and improving facilities for students. • Reducing barriers to learning for people in Shetland caused, for example, by geography or personal circumstances by providing more local (community-based), online and flexible learning opportunities. • Increasing college resilience and its ability to deliver learning opportunities in new and innovative ways. • Expanding life-long learning opportunities for people in Shetland. • Meeting the needs of both existing and new businesses in Shetland by training the workforce to meet the needs of both employers and employees. • Promoting and facilitating the use of college facilities by businesses to meet their own needs. • Meeting the needs of communities by providing accessible learning opportunities through permanent learning centres and temporary ‘pop-up’ facilities. • Promoting and facilitating the use of college facilities by communities to meet their own needs. • Strengthening links with Shetland’s schools through school-college educational opportunities, which bridge the gaps between school and college or university and between school and the world of work. In particular, promoting and facilitating education and training in STEM subjects (Science, Technology, Engineering and Mathematics). • Exploring new educational and training needs and developing new opportunities in Shetland both to meet the future needs of the islands’ population and businesses (both existing and new) and to attract more learners from outside the islands (both physically and virtually, via distance learning).
Project owner	Shetland UHI

EQIA lead (person to complete the EQIA and will co-ordinate and involve stakeholders.)	Doug Rattray (Project Manager, Campus Redevelopment Project)
EQIA contributors	<ul style="list-style-type: none"> • Stuart Hall, UHI Equalities Officer • Jane Lewis, Principal of Shetland UHI and Campus Redevelopment Lead. • Shetland Islands Council • Scottish Government
Date of EQIA	October 2021

Section B	
How does the project: <ul style="list-style-type: none"> • meet one or more of the general duties under the Equality Act 2010 and • address socio-economic disadvantage or inequalities of outcome? 	
General duties	Please Explain
Eliminating discrimination, harassment and victimisation	<p>The project involves the redevelopment of several 'spaces', around the Lerwick and Scalloway campuses and improvement of our outreach provision on Shetland:</p> <ul style="list-style-type: none"> • Where possible, Student Spaces and Learning Spaces will be fully accessible to those with physical disabilities e.g., wheelchair users. • The Student Hubs (large group social spaces and central locations for student information) will be located on each campus in or around the reception area on the ground floor. These locations will be fully accessible. • The smaller social spaces being developed shall be distributed throughout the campuses, with a large proportion being fully accessible. These spaces shall also be created using furniture that is configurable to the particular needs of the users. • A quiet room shall be created on each campus. This multifaith space shall be set aside for people of differing religious beliefs, or none at all, to spend time in contemplation, relaxation or prayer. Provisions of equipment or storage can be arranged locally to accommodate specific user requirements of the space. • As part of the upgrading of Learning Spaces across the Lerwick and Scalloway campuses:

	<ul style="list-style-type: none"> ○ A move to flexible classroom design will ensure that all non-specialist classrooms can be configured to meet the specific accessibility needs of the students and staff. ○ The refurbishment of the Scalloway campus auditorium shall also increase the accessibility to that space.
Advancing equality of opportunity*	<p>Particular aspects of the redevelopment works specifically aim to advance the equality of opportunity and access:</p> <ul style="list-style-type: none"> ● The Newton Room concept alongside Immersive Classrooms technology will enable the college to showcase STEM subjects to school age students, with the potential to increase the attractiveness of STEM to groups traditionally excluded from these opportunities. ● As part of the redevelopment, our network of Community Spaces will be improved to offer increased flexibility to students seeking access to high quality educational material. This has the potential to decrease the need to travel to the main campus thus advancing equality of opportunity to those who are unable to make that journey on a fixed schedule for classes. This may include individuals whose daily schedules are affected by disability, marriage status, pregnancy/maternity, race, religion, or sex for example. <ul style="list-style-type: none"> ○ The project will upgrade (in terms of appearance, provision of social space and provision of modern classroom facilities) the network of remote College Learning Centres. These centres will increase access to a quality educational experience to student who are not local to our main campuses. ○ A range of mobile facilities and equipment shall also be developed that can be transported to schools, community centres and any other suitable venues shall be established to further enhance the College’s capability to bring education to those students remote to our main campuses.
Fostering good relations**	<p>The proposed project complements and will contribute to the delivery of the other projects being considered as part of the Islands Deal package, primarily through the enhanced opportunities and capacity it will offer for training and workforce development. This will help ensure access to the trained and skilled workers, which will be necessary to ensure the success of these projects and their benefits to the wider Shetland community.</p> <p>The facilities developed under this project will also offer wider potential benefits to these projects through the opportunities they will afford for wider engagement both with the local community and with business and projects in other areas of the world.</p>
Socio-economic disadvantage	<p>The redevelopment works seek to enhance the college’s capability to deliver distance learning material through the standardisation of technologies in the classroom and through the specific outreach focused content (redevelopment of</p>

	<p>community spaces). It is proposed that by continuing to advance this strategic goal, the college’s educational material will become more accessible to those affected by socio-economic disadvantage.</p> <p>The redevelopment works will be developed alongside the TalEntEd programme with an aim of meeting the training requirements of local industries. In addition to this, much of the redevelopment work seeks to improve the quality of teaching spaces that are used to teach skills important to the local economy.</p> <p>Through these actions, it is proposed that the works have the potential to generate in the local community more good quality candidates to jobs in the Shetland Islands.</p>
Inequalities of outcome	<p>With respect to the Fairer Scotland Impact Assessment, it is considered that this project delivers reduction to inequalities of outcome arising from socio-economic disadvantage via several strands of the redevelopment work:</p> <ol style="list-style-type: none"> 1. By revitalising study spaces on our campuses, both in terms of visual appeal and the computing provisions, the college is able to provide a location for students to engage with educational material where they may not have the space or equipment to do so at home. 2. By improving the technologies present in our classrooms (as standard), we shall increase our capability to deliver high quality distance learning material. By this means, students who primarily engage with our learning materials remotely are provided with a learning experience rivalling that of students attending one of our college campuses. It is by this provision that Shetland UHI continues to reduce access barriers to higher and further education – where examples of such barriers may include cost, family responsibilities and/or job commitments. 3. The Newton Room that is included as part of these works is a specialised teaching space that acts as a STEM resource for the local schools of our community. Through this provision it is hoped that young learners attending a local school are able to gain access to high quality and engaging STEM learning materials led by professionally trained teachers. The curriculum of activities on offer in our Newton Room shall be aligned with the needs of local schools and those local industries that are important to economy of the Shetland Islands. 4. The Immersive Classroom that is included as part of these works is a specialised space that enables a wide range of unique teaching experiences. It is proposed that by providing this space, the college opens up opportunities for teachers or community members to deliver specialised training in a local arena. This space has the opportunity therefore to supplant other more cost prohibitive training requirements. 5. As part of these works, we shall also be upgrading and improving the appearance and outfit of our network of remote learning centres, thus increasing our capability to deliver skills training to those students unable to travel to our campus on a regular basis. These upgrades shall be further supported by a range of mobile facilities and equipment

	that can be transported to the centres on a needs basis or can be cycled around each centre to ensure that distance learning students have access to high quality training and educational materials rivalling that of our on-campus students.
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**Advancing equality of opportunity*

The Equality Act recognises that sometimes equality will only be achieved if people with different protected characteristics can be treated differently, for example, to reflect their particular needs. Advancing equality of opportunity, therefore, involves actively considering the need to:-

- Remove or minimise disadvantages suffered by people who share a relevant protected characteristic that are connected to that characteristic.
- Take steps to meet the needs of people who share a protected characteristic that are different from the needs of people who do not share it e.g., taking account of disabled people's disabilities.
- Encouraging people to participate in public life or in any activity in which participation by such people is disproportionately low e.g., ensuring that ethnic minority women participate in the running and decision making of community groups and are not simply members of such group.

Consideration must be given to all 3 of the above to comply with the need to advance equality of opportunity. Examples of disadvantage or a failure to recognise and address different needs include:

- Under-representation in certain activities and in the take-up of certain benefits or services.
- Disproportionately experiencing poor health, inadequate housing, vulnerability to crime or poor educational outcomes.
- Under-representation in certain jobs and professions; and
- Disproportionately concentrated in certain low-status occupations or grades

Disadvantage is not defined by the Equality Act but may include exclusion, rejection, lack of opportunity, lack of choice or barriers to accessing services.

The Equality Act allows steps to be taken to take account of disabled people's disabilities. This makes it lawful to treat a disabled person more favourably than a non-disabled person. A disabled person can also be treated more favourably than disabled people with other impairments by relying on the positive action provisions.

**** Fostering good relations**

There is no definition in the Equality Act of “fostering” and “good relations”, but guidance suggests that the ordinary meanings of these terms should be used – to maintain, improve or grow. For example, fostering good relations between people with and without a visual impairment or between gay and straight people. The intention of fostering good relations includes:

- Increasing integration.
- Increasing diversity in civic and political participation (including volunteering) in the relevant community.
- Increasing reported confidence and trust in institutions; and
- Leading to a reduction in bullying, harassment, hate crime and violence against those who share a particular protected characteristic

Section C
Is it likely that there is no impact on any of the equality groups (having considered the above)? If yes, please explain why (based on evidence) if this is the case. There is then no need to complete Parts 2 and 3. However, in most cases it is expected that there will be positive impacts.
No

Part 2: Evidence and Impact Assessment

Section A			
Based on available evidence, consider what the positive or negative impacts of a policy change are on the protected characteristics. Evidence can be used from conferences, workshops, focus groups etc. - where appropriate, make sure that the equalities profile of these clients is gathered as part of the evidence gathering exercise.			
Protected characteristic	Positive impact	Negative impact	No impact

Disabled people	New or redeveloped spaces will be designed to be accessible, configurable and easy to navigate through.		
Sexual orientation	Several of the newly designed small social spaces will be configurable to the needs and desires of the users, i.e., generally the student body. These spaces may be decorated with artwork produced within the college, which already has a strong legacy of producing pieces that reflect the personal experiences of a diverse group of individuals.		
Women	Advancing the strategic aim of the college to deliver high quality distance learning material increases equality of access opportunity to women who have other responsibilities in their lives that may benefit from having a flexible approach to teaching & learning.		
Men	As per 'women' above. Note that whilst this group may traditionally be affected by different lifestyle constraints to that of women, it is suggested that the flexible approach has the potential to benefit men also.		
Transgendered people	As per 'sexual orientation' above.		
Race (includes Gypsy Travellers)	As per 'women' above.		
Age (including older people aged 60+)	As per 'women' above.		
Children and young people	As per 'women' above. Also note that the provision of the Newton Room concept and Immersive Classroom technologies are supported by a wealth		

	of high quality content tailored to the education of children and young people.		
Religion or belief	As per 'women' above. Also note that the provision of a 'quiet room' (multi-faith) space on campus is specifically conceived of to offer a space for relaxation, contemplation and prayer making attending the college campus a more welcoming place to those with specific religious or belief-based requirements.		
Pregnancy & maternity	As per 'women' above		
Marriage & civil partnership	As per 'women' above.		

Section B			
Please also consider the impact of the project in relation to:			
	Positive impact	Negative impact	No impact
Looked after children and care leavers	As per 'women' above.		
Privacy (e.g., information security & data protection)			Several new technologies and modes of increasing internet connectedness will be implemented as part of this work. Each of these has the potential to affect the privacy of our staff, students, external stakeholders, and any other users. We will ensure that all of these new redevelopments will be reviewed by our Data Protection Officer in accordance with UHI policies relating to Data Protection and GDPR compliance

Economy	The proposed project will improve and expand the educational offering available to the people living on Shetland, as well as the other island groups and the wider University of the Highlands and Islands area. In addition, the project will help meet the training and skills development needs of current and emerging local business sectors including renewables, decommissioning and satellite launching. In doing so, this project will contribute to economic development and inclusive growth in the islands as well as to the zero-carbon economy.		
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Section C	
Record the evidence used to support the assessment. It can include officer knowledge and experience, research, customer data and surveys, public engagement and feedback etc. The amount of evidence gathered should be proportionate to how relevant a particular policy or service is to equality. If there are gaps in evidence, record these.	
Evidence used	Source of evidence
1. An increase in the accessibility of our college campus buildings. Increasing the attractiveness of the campus to people affected by disability.	<ul style="list-style-type: none"> On-going student feedback, gathered through HISA (our student association).
2. An increase in the attractiveness (or feeling of belonging) that our college provides to all people affected by the 9 protected characteristics	<ul style="list-style-type: none"> On-going student feedback, gathered through HISA Review of diversity of students attending college campus Review of diversity of students in annual college admissions.
3. An increase in students leaving college and becoming employed in skilled jobs within the Island economy,	<ul style="list-style-type: none"> Engagement with local employers On-going feedback gathered from college leavers

Evidence gaps	Planned action to address evidence gaps
1. Much of the above requires on going engagement to generate the evidence that would support the positive impact of the project.	<ul style="list-style-type: none"> Continue to gather feedback from the various sources listed above, e.g., student, leavers and employer surveys, maintaining and reviewing diversity statistics of the college including class breakdown.
2.	
3.	

Part 3: Recommendations

Section A		
Recommendations should be based on evidence available at the time and aim to mitigate negative impacts or enhance positive impacts on any or all of the protected characteristics.		
Recommendation	Lead person	Timescale
1. Continue to gather feedback from the various sources listed above, e.g., student, leavers and employer surveys, maintaining and reviewing diversity statistics of the college including class breakdown.	UHI Equalities Officer supported by Principal of Shetland UHI	Project end date + 1 year intervals for 5 years.
2. Ensured that all new technologies and facilities are reviewed by our Data Protection Officer and are in accordance with UHI policies relating to Data Protection and GDPR compliance	UHI Data Protection Officer	Project end date
3.		
4.		
5.		

Part 4: Equality Impact Assessment Summary Report

What are the main impacts on equality?
<p>This project impacts equality through 2 principle means:</p> <ul style="list-style-type: none">• By increasing the outreach capability of the college – our capability to deliver educational material to remote learners – the project has the potential to positively advance equal access to our services.• By increasing the attractiveness of the college campuses (Lerwick and Scalloway) we hope to create a space that is accessible and welcoming to all, including protected groups
In relation to a strategic decision, how will inequalities of outcome caused by economic disadvantage be reduced?
By increasing the quality, availability and flexibility of our educational offering it is hoped that groups affected by economic disadvantage have a greater capability to access our educational offering.
What are the main recommendations to enhance or mitigate the impacts identified?
Consistent engagement with students, leavers and local employers so that we can continue to tailor the educational experience on offer at Shetland UHI to the needs of our community.
If there are no equality impacts on any of the protected characteristics, please explain.
n/a

Appendix C: Environmental Impact Assessment: Initial Screening

1. PROJECT	
Name	Shetland Campus Redevelopment Project
Ref	TBD
2. EIA DETAILS	
Is the project a Schedule 1 development? (Under The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017)	No
If YES, which description of development (THEN GO TO Q4)	n/a
Is the project Schedule 2 development?	No
If YES, under which description of development?	n/a
Is the development within, partly within, or near a 'sensitive area' as defined by Regulation 2 of the EIA Regulations?	No
If YES, which area?	n/a
Are the applicable thresholds/criteria in Column 2 (of schedule 2 of the Regulations) exceeded/met?	No
If yes, which applicable threshold/criteria?	n/a
3. If you have answered yes to any of the questions above, please describe the project's plan to address the need for an EIA.	
n/a	

Appendix D: Statement on Inclusive Growth

The University of Highlands and Islands partnership is committed to promoting inclusive growth in the Highlands and Islands, Moray and Perthshire economies. It achieves this commitment chiefly by:

- By enabling access to university for students from disadvantaged backgrounds thus increasing the lifetime earnings premium for those students.
- By providing research and knowledge exchange activity, including provision of skills training for our local employers.
- By being a physical presence in the community the colleges act as an employer offering high quality job opportunities, an attractor of people to the highlands and islands and a consumer of local goods and services.

In 2020, the University of Highlands and Islands commissioned Bigger Economics to produce an Economic Impact Assessment to quantify the scale and scope of the economic contribution made by the university and its academic partners.

The report finds that:

“[The university is] ... helping to change mindsets of young people about remaining in the area and that it has become a vehicle for supporting key frontline services in the public sector. It offers infrastructure that is crucial in guiding the future economic and social direction of the Highlands and Islands, Moray and Perthshire by responding to the needs of business, industry and the wider community.”

It is estimated that across Scotland the University supports £653m GVA (Gross Value Added) and approximately 7,200 jobs.

The report highlights the UHI’s distinctive strengths as:

- The university is a **technology-rich organisation** with a strong commitment to distance learning. This has enabled a networked delivery of courses across Scotland that has brought about a step change in the range of options available, particularly so for the most remote and rural parts of the region.
- The university employs a **blended approach to learning**, which is engaging and attractive and the university has built a strong reputation in this model of delivery.
- It is the **only tertiary education provider in Scotland** and is able to offer qualifications at every level from NC and VQ qualifications up to Masters and PhDs.
- The university offers a **range of pathways** through post-16

education, which is a major benefit to young people of all abilities, regardless of their level of prior attainment. It also gives scope for older students to progress their careers or change their career path throughout their working lives.

- The curriculum offers a **range of specialist courses** that are grounded in the fabric of the region and support the local economies in which the colleges are placed.
- Courses have been developed to **respond to the identified needs of the region**.
- Through a network of **curriculum development and employer engagement** officers for different subject areas, the University has an ability to closely align curriculum content with identified employer needs as well as build positive relationships with employers. This keeps existing courses relevant as well as helping to identify new course provision.
- Complementing its degree courses, the University's offering includes **work-based learning** through its suite of apprenticeships at Foundation, Modern and Graduate level.
- It is viewed as a **strategic and operational partner in economic development** as well as a service provider in education. The academic partners play an increasingly important civic role, forming an essential part of the fabric of the regions they operate in. The colleges are heavily involved in delivering the Growth Deals for their areas and are active members in their local communities, strongly focused on delivering what their local economies need. Their presence and the networked capacity of the University build economic resilience into the region and provide a powerful vehicle for assisting in the economic recovery following the COVID-19 pandemic.
- The **profile of the University's research work** draws attention to the organisation and establishes its credibility at a national and international level. As this reputation has grown it has drawn in further research projects, staff and students.
- Its approach to school engagement supports the **delivery of STEM education to school-age children**, particularly at the later stages of primary school and has connected with 100 schools and 10,000 pupils across the Highlands and Islands to highlight the opportunities offered by careers in these subjects.
- Its curriculum offering along with its **approach to student engagement, support and tutoring**, is resulting in strong rates of student retention and satisfaction at the University. Its modern estates portfolio adds to its appeal

for students and many campuses are key features of cities, towns and villages across the Highlands and Islands, Moray and Perthshire. With regards to Islands Growth Deal projects, the three academic partners involved (Orkney, Shetland and the Western Isles) working alongside councils in the Islands Authorities have developed packages of work that have been designed to enhance the college's capability to deliver services to its local community.

With respect to this project, the campus redevelopment works aim to enhance college capability to deliver on each of these key strengths locally, thus drive growth in our community. Furthermore, the specific works included in this project have been selected considering their ability to deliver these performance benefits in a manner that is inclusive, i.e., is based on the ethos of combining increased prosperity with greater equality, creating opportunities for all, and distributing the benefits of any improvements.

The following particular aspects of the project have been included specifically because of their positive impact on inclusivity:

- Upgrading the student study spaces on campus enables us to create a shared space with access to resources that may not be available to students at home. These resources include, for example: audio-visual technologies, computing hardware, and non-standard software packages. Through this provision the college has the potential to reduce the attainment gap between individuals of differing socio-economic background by providing equal access to this equipment at zero cost to the student.
- Upgrading the teaching spaces so that more classrooms are outfitted as standard with the necessary tools and technologies to create distance learning materials provides the college with the capability to deliver more of its curriculum via a virtual learning environment (VLE). Providing materials in this format allows students to be flexible in their approach to education, both in terms of class scheduling and in where they access the material. Flexibility therefore helps to tackle inequality by supporting those who have competing commitments in their home or work life. Flexibility supports those who live in rural or remote communities as it reduces the need to relocate or commute long distances to access good quality education.
- The Newton Room that is included as part of these works is a specialised teaching space that acts as a STEM resource for the local schools of our community. Through this provision it is hoped that young learners attending a

local school are able to gain access to high quality and engaging STEM learning materials led by professionally trained teachers. The curriculum of activities on offer in our Newton Room will be aligned with the needs of local schools and those local industries that are important to economy of the Shetland Islands. The Newton Room is an environment which promotes the flourishing of a highly qualified skillset in the young members of our community, thus increasing their potential to access good-quality jobs as they enter the workforce.

- The Immersive Classroom that is included as part of these works is a specialised space that enables a wide range of unique teaching experiences. It is proposed that by providing this space, the college opens up opportunities for teachers or community members to deliver specialised training in a local arena. This space has the opportunity therefore to supplant other more cost prohibitive training requirements. This capital investment therefore has the capability to act as a multi-functional training tool, reducing the recurring costs of specialist training and removing the burden of those costs from the individual.
- As part of these works, we will also be upgrading and improving the appearance and outfit of our network of remote learning centres, thus increasing our capability to deliver skills training to those students unable to travel to our campus on a regular basis. These upgrades will be further supported by a range of mobile facilities and equipment that can be transported to the centres on a needs basis or can be cycled around each centre to ensure that distance learning students have access to high quality training and educational materials rivalling that of our on-campus students.

Appendix E: Scope of Work: Student Spaces

The redevelopment of the campuses for the creation of student spaces and a Student Hub involves the redevelopment of the entrance areas on both campuses, various locations distributed throughout both campuses, the Port Arthur House and the Lerwick campus library. The key items for redevelopment have been expanded upon in the report included in Appendix F.

It is proposed to contract an architect / designer to recreate the spaces to meet the requirements specified in Appendix F. The provisional costs of the redevelopment will be established with contractor engagement and as such the cost allocated in the project at present takes the form of a budgetary estimate.

Appendix F: Scope of Work: Learning Spaces

The following are extracts from draft report “Campus Redevelopment Teaching Spaces”. This work remains ongoing and further iterations of this scope should be expected.

Campus redevelopment: Teaching spaces; Report v1.1

Introduction

This short report continues the initial work of the Campus Redevelopment Working group to explore options and required campus improvements to enhance the current teaching spaces at the Lerwick and Scalloway campus buildings.

Discussion with staff highlighted the following main issues:

- Requirement for more tutorial teaching rooms (including appropriately equipped small rooms for remote delivery)
- Lecture theatre refurbishment / development options
- Online ready classrooms
 - Classrooms to allow mixed delivery (ie Face to Face and Remote Delivery)
- Appropriate teaching facilities to include interactive white boards
- Any necessary teaching room maintenance/improvements required to meet the above points.
- Train Shetland commercial short course building will be lost in 12 months
- Scalloway campus lacks ability to accommodate a larger IT based class

Scalloway campus

- Interactive Whiteboard
Replace old dated overhead projectors and dated/unused SmartBoards
 - 11 new Interactive Whiteboards required
- Traditional whiteboards:
Staff would like to retain use of traditional whiteboards in addition to new interactive whiteboards. Several are now in a poor condition (approx £100 each)
 - 11 traditional whiteboards (approx. £100 each = £1100)
- Dated IT Systems: Radar Room + Library:
 - 23 Desktop PC's (£465 per computer system replacement. £350 desktop, £115 monitor. Total cost £10,695.00)
- Lecture Theatre: Projector dated & poor quality.
The screen also can produce a ‘balloon’ distorted image at times.
The current screen area is 3320mm x 2400mm (161" diagonal screen)

Potential replacement options would be either to replace the projector or look at an alternative extra-large Interactive Screen.

- Projector Option 1: 4K Short throw Optoma Project 120” (£3300) & Optoma 123” motorised screen (£600)

OR

- Projector Option 2: 4K projector up to 200" Casio (£6000) & Premium Motorised Screen 4.5m (£1600)

OR

- Interactive Screen:
- Lack of a single large IT teaching classroom (>12 students)
Presently students need to travel and attend Lerwick campus
- Lecture theatre: underused (approximately 5 times a year)
 - Seating too cramped together
 - No mains or USB points on seating rows
 - No removable table for placement of laptop/notes area – so lecture theatre use as a longer term teaching space is restricted/limited.Various options discussed but staff undecided as best way forward. Options floated:
 - Upgrade 1st few seating rows. Less seats, spaced out, mains/usb points, seats with adjustable table
 - Remove video projection room at rear
 - Scrap lecture theatre and replace with 2 floor teaching spaces
- Hatchery buildings (Shed/offices) currently not used to full potential
- Workshop space is limited – insufficient space for growth in classes. Eg Insufficient space for Electrical/hydraulic classes – discussion suggested extending mezzanine on top of engineering lathe workshop but noise issue would be retained and this solution would potentially require different access to mezzanine area for safety. The mezzanine area currently is not suitable (due to noise) to deliver a class whilst another class is taking place in the lathe workshop.
 - Alternative is to move the practical lathe workshop/classroom area to a new location – ie some of the unused Hatchery buildings?
 - Leave the lathe workshop as is, but relocate to a new teaching area for Electric, Hydraulic, Net Zero new classes to a new location.
- Some classrooms have lack of mains trunking/mains points/LAN points for change of use.
 - Number of rooms to be confirmed
- Request for VR Welding Simulator (eg Lincoln Electric VRTEX K4299-4 (Awaiting quotation)
- Lack of room identification
 - Several rooms are not numbered/labelled in any way – difficult to identify/discuss/locate

Lerwick campus

- In total 5 new Interactive Whiteboards required
(Construction woodwork bench area workshop, Main VC D24 Room, D15: Art/Textiles Office, A3, Another Room)
- Main Video Conference D24 Room – requires windows for change of use to classroom
- 2-3 larger office spaces highlighted as potential change of use to classrooms
 - Main VC D24 Room, D15 Staff base, A3 Office
- Review of other room usage should be carried out further during 2021-22
 - Room A0/A6 Computer Labs – could be better used as a teaching space

- Lack of storage limits versatility of the room usage for different classes.
 - Both rooms also small to accommodate larger groups for practical work
 - Room A8 – Mains trunking/LAN points require renewal
 - Several Art Studio classrooms use a large floor area of teaching spaces.
- Some IT classrooms due for PC replacement
 - Rooms B1, B2 and B3 have a lack of or dated computer systems
 - Room B1 (14 Laptop x £480 = £6720, 1 x charging trolley £1200 = £7920)
 - Room B2 (14 Desktop x £465 = £6510)
 - Room B3 (12 Desktop x £465 = £5580)
 - Lack of laptops available for multi-purpose teaching classroom
- Requirement to equip a number of rooms for Dual teaching Face to Face + remote deliver.
 - Waiting for VC Master to reply on suggested Camera equipment

Construction Dept:

- Replacement of 14 wooden work benches with vices required (14 x £1200 = £16,800)
- Storage area/New Teaching space – new Racking system and re-arranging of area could create a new teaching space eg for Plumbing or Electrical (£8000)
- Brickwork shed needs Flooring levelled/screeded
- New CNC Router (approx. £25000 - £45000 depending on specification).
 - Current CNC router is broken/not operational and 20+ years old)
- Woodworking machinery tooling
(Spiral cutters for planers and Window tooling for Spindle Moulder) (6 x £1000 = £6000)

Computing Dept:

- Graphics/Media/VR workstation (£6500)
High end computer system to run any current/future requirements in VR, High end Video rendering, Media editing, 3D modelling etc
(Scan computer systems: 3XS Vengeance Hydro X, Core i9 11900K, NVidia GeForce RTX 3090 + 4K monitor)

General campus appearance

Some classrooms are tired and dated looking and are not providing a professional ambience in the college to either students or industry. A quick review of college campus buildings should be undertaken to highlight areas required for painting, replacement of floor coverings, replace missing/broken ceiling tiles.

Still to be actioned - questions/issues still to be addressed

Further detailed discussion remains on the following few important points:

- Scalloway: Lecture theatre upgrade/change
- Scalloway: Accommodate a large IT equipped classroom (20 systems)
- Scalloway: Workshop mezzanine area poor learning space with limited space
- Scalloway: Hatchery shed & buildings under-utilised
 - Potential to alter use/accommodate other teaching requirements in these buildings.
 - Hatchery plans /facilities unknown to author of this report at present time

- Lerwick/Scalloway: require assigned teaching area for electrical/plumbing/net zero classes
- Lerwick: Agree change of use for main VC Room
- Lerwick: Review of room usage through 2021-22 to better understand past/existing use

Cost Summary

Item	Notes	Estimated Cost (inc VAT)
Interactive Whiteboards	Scalloway 11 screens, Lerwick 5 screens indicative price based on Clevertouch ImpactPlus2	£58,809.60
Dry Wipe Whiteboard	Scalloway 11 boards £100 each	£1,100.00
Room D24 (VC)	Lerwick – addition of windows	
Computers	Scalloway (Radar Room + Library)	£10,695.00
Computers	Lerwick (B1,B2,B3)	£20,010.00
Dual teaching rooms	Webcam/microphone equipment	
Lecture Theatre	Scalloway upgrade	
Lecture theatre Projector	Upgrade to existing Projector + Screen	
Single large IT room	Scalloway	
Mains/Trunking/LAN	Scalloway upgrade to X teaching rooms	
Train Shetland relocation	Identify suitable rooms for staff + training rooms Desks, Seating, Sink x 1, Pinboards, Interactive Screen	
Workshop space	Mezzanine area unsuitable. Relocate hydraulic/electric classroom area	
Room relocation	Swap/relocation of classrooms/offices Potential worktops	
VR Simulator	Engineering dept	
Wooden workbench	Lerwick Construction dept – 14 x £1200	£16,800.00
Storage Rack System	Lerwick Construction dept	£8000.00
Brickwork shed	Lerwick Construction Dept. New flooring	
CNC Router	Lerwick Construction Dept	£25,000 to £45,000.00
Woodworking Machinery Tooling	Lerwick Construction Dept. Woodworking Tooling machinery	£6000.00
Graphics Workstation	High end Graphics/VR/Media workstation	£6500.00
College tidy up	Painting, flooring, replace tiles	
College signage	New signage required for both campus buildings + Scalloway room numbering	

Appendix G: Scope of Work: Newton Room

The installation of a Newton Room is being developed in collaboration with Highlands and Islands Enterprise (HIE), who are seeking opportunities to extend the number of Newton Rooms situated throughout Scotland. To enable the installation of a Newton Room, the host institution needs to conduct the following scope of works:

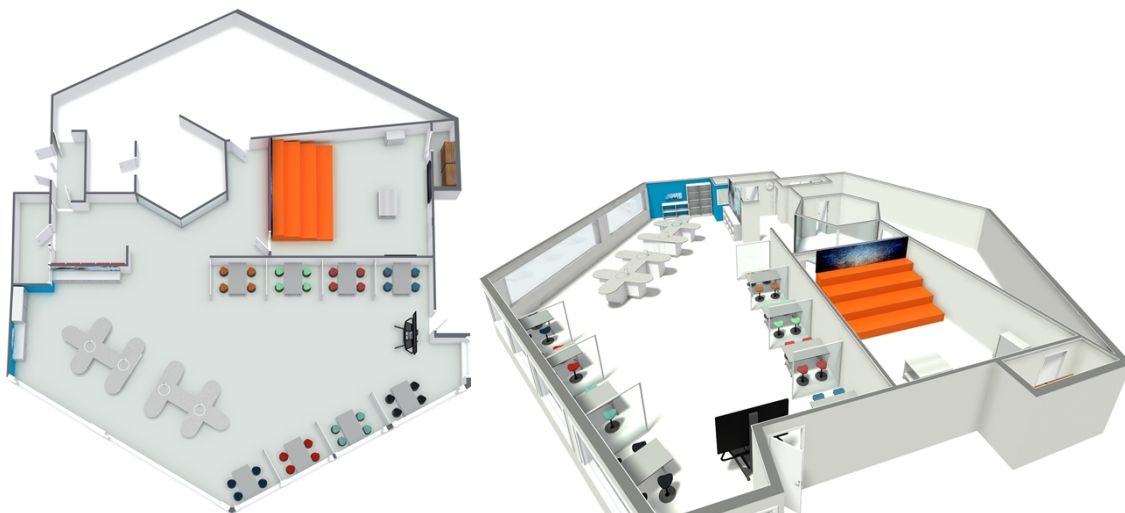
1. Identify and earmark a space to host the Newton Room
2. Make ready that space, with regards to meeting the utility requirements of the Newton Room
3. Procurement and Installation of equipment in accordance with the Newton Room Specification.
4. Be prepared to staff the new facility.

With regards to points [1] and [2], at Shetland UHI, the ground floor of Port Arthur House, Scalloway campus has been identified as a suitable location to host the Newton Room. This space will be made ready in accordance with the specification of the HIE design.

With regards to point [3], the final design of the space, and therefore the specification of equipment for procurement and installation is still underway with HIE. As such, the cost estimate for this work is based on a review of similar installations, such as those at Thurso, Fort William and Dingwall. Based on the cost estimate of these installations a budgetary price estimate of circa £200k has been estimated. This cost will be refined further as the final design is produced.

Information relating to Newton Room Installations across Scotland

The **Thurso Newton Room** is circa 235 m². The room consists of a cloakroom (9.8 m²), auditorium (39.5 m²), main room with combined lab (148.8 m²), small storage room plus an office. The Newton Room is based at North Highland College:



The **Fort William Newton Room** is circa. 146 m². The room consists of a main room (83.6 m²), laboratory (32.1 m²) and auditorium (30.4 m²). In Fort William this room is demountable (aka, can be

swiftly repurposed): furniture (including tables, divider screens and touch screen) is on wheels or light weight enough to be moved and packed away. To accommodate this, furniture is light weight and easy to handle – it takes one person approximately 15 to 20 minutes to set up the Newton Room or to pack the equipment away.



The **Dingwall Newton Room** is circa. 164 m². The room consists of a main room (72 m²), laboratory (33 m²), auditorium (30 m²), cloak room (22 m²) and storage room (7 m²). The room is based at Dingwall Town Hall and is a full time Newton Room.



Estimating Cost of Refurbishment

The cost for the basic refurbishment of a Newton room (flooring, ceilings, walls, plumbing, electrics, ventilation, Building Warrant drawings) varies greatly from one room to another depending on the

condition of the room (walk-in versus requiring some/significant refurbishment work) and ranges between approximately £30k to £130k. The Fort William Newton room was established in a new facility that required much less refurbishment work, whereas the Thurso and in particular Dingwall Newton Rooms are installed in older buildings that required a lot more refurbishment work. The costs below include the procurement and installation of the lab/kitchen units:

Refurbishment Costs	
Fort William Newton Room	Circa £42k (including fees & exc VAT)
Thurso Newton Room	Circa £95k (including fees & exc VAT)
Dingwall Newton Room	Circa £130k (including fees & exc VAT)

Estimating Cost of Procuring Furniture & IT Equipment

The various items of furniture and IT equipment procured for the demountable Fort William Newton Room are presented in the table below:

Note that costs were slightly higher for the Thurso & Dingwall Newton Rooms as they were larger and could hold more storage units.

Also note that figures have been rounded up/down for simplicity.

Item	Total cost (exc VAT)
Auditorium	
Beatbox seating*	£9300
Furniture inc. storage unit & writing boards	£550
75" Clevertouch Plus screen (on fixed wall mount)	£3050
Laboratory	
Storage units, trolley, coat rail	£950
Main Teaching Room	
Furniture inc. foldable tables (8), stackable chairs (40), divider screens, writing boards	£10,600
65" Clevertouch Plus screen (on mobile mount)	£2800
iPads (1 per pair of pupils), keyboards, protective cases, iPad charging stations,	£6900

** Note that Beatbox seating was not procured for the Thurso or Dingwall Newton Rooms as they are larger spaces and had room for seats to be made by joiners.*

Estimating Cost of Newton Module Equipment

When visiting a Newton room, pupils will take part in hands-on and inspirational STEM activities called Newton Modules, which have been designed to link to the Scottish Curriculum for Excellence and reflect STEM sectors in the Highlands and Islands. Some of these modules will have been developed by our collaborators FIRST Scandinavia and adapted by the SSA to complement the Scottish school curriculum and local STEM industries, and other modules will be developed SSA staff and partner organisations.

The SSA has budgeted approximately £10k per module (£60k total assuming delivery of 6 modules) to procure all the required equipment. A breakdown on the Mathematics & Robotics (for 35 primary pupils) and Electricity & Renewable Energy Sources (for 20 secondary pupils) is presented below:

Items	Total cost (exc VAT)
LEGO Mindstorms Education EV3 core pack (1 per pair)	£4800
Custom made LEGO table x 2	£1850
Printed LEGO mats	£250
Miscellaneous items (eg rulers, measuring tapes)	£400
Total cost for Mathematics & Robotics module	£7300

Items	Total cost (exc VAT)
Activity 1: Introduction to Energy	
Miscellaneous items (eg various balls, finger slingshots, seismic accelerator balls)	£150
Activity 2: Ball Tracks	
Miscellaneous items (eg pipe insulation, steel balls, straws, tape)	£128
Metal ball track frames	£2400
Activity 3: Generating Electricity	
PASCO voltage/current sensor, airtlink, charging station	£1000
Various electricity items (transformers, leads, bulbs, lamp holders, ammeter, magnets)	£676
Activity 4: Steam Power	
Steam engine + accessories	£735
Wind Power	
Wind turbine kit	£588
Miscellaneous items (resistors, leads, fans)	£134
Hydroelectric Power	
Water reservoir, generator, hydro kit	£1844
Miscellaneous items (retort stand, resistors, leads)	£345
Total cost for Renewable Energy module	£8000

Estimating Cost of Support to Delivery of the Newton Concept

HIE procured the consultancy services of FIRST Scandinavia for the establishment of the Highland Newton Room Network. The Norwegian-based organisation offer a range of support services from the basic Newton Concept Annual Fee, to additional services such as consultancy, training and support. As HIE were bringing the Newton Room Concept to the UK for the first time, HIE opted for a full consultancy support package. It is also important to note however that HIE/the SSA project, having gained experience in establishing Newton Rooms, would be available to provide the College with support.

Estimating Cost of Newton Concept Fee

As part of the Newton concept, FIRST Scandinavia has an annual fee of £3k per room (to be confirmed by FIRST Scandinavia), which allows us access to the Newton Platform (newtonroom.com) that contains a library of Newton Modules and a booking and evaluation system for example. This annual fee will also enable us to access support from the Newton administration team.

Appendix H: Scope of Work: Immersive Classroom

The creation of the Immersive Classroom is being developed in collaboration with Dr Beth Mouat, Islands Strategy Director, who is responsible for a project delivering the immersive classroom experience to centres across the Scottish Islands. This project, working with Highlands and Islands Enterprise and the Scottish Government is seeking funding for the procurement and installation of the immersive classroom technology into spaces made ready by their hosting institutions. The college, aspiring to host this technology therefore is required to undertake the following scope of works:

1. Identify and earmark a space to host the immersive classroom
2. Make ready that space, with regards to meeting the utility requirements of technology
3. Be prepared to meet the servicing and maintenance requirements of the immersive classroom
4. Be prepared to train its staff on the use of the technology and (to get the most benefit) on the generation of content.

With regards to points [1] and [2], immersive classroom suppliers typically suggest the following space requirements:

Ideally an internal room will be 6m x 6m square and up to 4m tall (noting that taller rooms are better and that around 3m to 4m is suitable). A provisional cost estimate for such an installation is around £90k fully fitted out, and with the first year's warranty and support included.

An alternative solution is to install a weather-sealed external building, solely hosting the immersive classroom. Several suppliers offer this provision with a provisional cost estimate of around £125k. The building itself comes with a twenty-five year warranty.

In both cases, it is normal for suppliers to offer a comprehensive support package for both options for the first year included in the purchase price, which involves content creation as well as system warranty and support. In addition, there is a lot of immersive classroom content already available on a huge number of subjects and topics online in both paid-for and free-to-use libraries.

At Shetland UHI, various potential classrooms have been identified as suitable locations at the Lerwick Campus – these being an appropriate size and already well provisioned in terms of connectivity and power supply. Once a supplier of the immersive classroom is selected, a site visit will be required to finalise the requirements to make the room ready for installation.

Appendix I: Scope of Work: Workshop Spaces

The redevelopment of the campuses for the improvement of workshop spaces involves the procurement of tools and equipment suitable for the training of practical skills. The key items for redevelopment have been expanded upon in the report included in Appendix F.

Appendix J: Scope of Work: Community Spaces

The scope of equipment and work required to redevelop the community spaces and create a suite of mobile equipment and facilities is still under development. As such the cost allocated in the project at present takes the form of a budgetary estimate.

Appendix K: Carbon Categorisation Form

Item	Project Owner Response
1. Project Name	Shetland Campus Redevelopment Project
2. Deal Region	Shetland
3. Brief Description of Project	This proposal involves redevelopment of the existing college campuses in Shetland (Lerwick and Scalloway) to enhance learning opportunities and student experiences in Shetland and to reduce barriers to learning. The option includes the redevelopment of student, learning and workshop spaces on both campus alongside community spaces, which are located both on campus and dispersed throughout Shetland.
4. Expected Carbon Emissions Impact CONTROL Category (1-5)	Category 3 – Capital carbon increase then operationally net zero
5. Expected Carbon Emissions Impact INFLUENCE Category (A-C)	Category A – Leads to wider carbon emissions reductions.
6. Justification of Expected Carbon Emissions Impact Category e.g., a short narrative outlining the key carbon emission sources and their relationship to capital and operational net zero following the Deals Carbon Emissions Impact Categorisation Process.	<p>Carbon Control Mechanisms</p> <p>The proposal does not include replacing or improving building infrastructure or those systems affecting the thermal properties of buildings (e.g., HVAC, window glazing, insulation, etc.). As such, these works are considered to relatively little affect the direct carbon contribution of those redeveloped spaces</p> <p>Carbon Influence Mechanisms</p> <p>There are various scenarios through which this project has the potential to reduce carbon emissions that are outside of the institution’s direct control, including:</p> <ul style="list-style-type: none"> • Collaboration with other islands deal projects • Enabling the teaching of courses relating to the field of sustainability thus producing students who will make a positive impact in their careers. • Meeting the training needs of local business sectors such as renewables • Increasing capability to access education remotely with the potential to reduce travel requirements. • Opening access to local communities and businesses with the potential to offset those organisations need for carbon capital investments.

<p>7. Could the Carbon Emissions Impact Category be improved? e.g., from Category 4B to Category 3A</p>	<p>Improvements on the direct carbon control mechanisms could be achieved through targeted redevelopment of the campus in terms of the carbon efficiency of its buildings (achieved through such means as outfitting all buildings with double/triple glazed glass or improved insulation, heating, lighting, etc.). These infrastructural works were deemed outside the scope of this proposal which was aimed at objectives relating to the educational experience of students. The college is aware of these opportunities and continuing to assess their potential as works in the future.</p> <p>Improvements on the carbon influencing mechanisms could be realised through increasing the focus of the college curriculum towards sustainability. Whilst this could have a positive impact with regards to carbon influencing mechanisms it should be balanced with the colleges capability to deliver the diverse curriculum that meets the needs of the local student body, community and economy. This proposal already enables a range of new synergies with projects focussing primarily on reducing carbon emissions (e.g., Islands Centre for Net Zero) and enables a greater degree of teaching on sustainability (e.g., courses in renewable energies). Opportunities to further shift in this direction may arise in the future and the college will need to continually assess the balance of its curriculum with cognisance to its broader strategic objectives.</p>
<p>8. Could the carbon performance of the project be improved? e.g., reducing emissions further, achieving net zero faster.</p>	<p>At present the capital carbon cost of the project is judged to be relatively low compared to business as usual. Any redevelopment works will be subject to requirements set forth in the RICS Whole Life Carbon Professional Statement which is compatible with BREEAM and the forthcoming Net Zero Public Buildings Standard.</p> <p>It is judged that exceeding these requirements may significantly increase costs, add delays or result in unavailability of equipment whilst not significantly improving the performance of the project in terms of capital carbon cost.</p>
<p>9. How will carbon be managed? e.g., through PAS 2080: Carbon Management in Infrastructure for infrastructure projects or the RICS Whole Life-Cycle Carbon Professional Statement for buildings projects</p>	<p>Where new building works are being undertaken, contractors will be required to apply requirements set forth in the Royal Institution of Chartered Surveyors (RICS) Whole Life Carbon Professional Statement. This document addresses the emerging understanding of the importance of embodied carbon in building projects and is compatible with other approaches to building</p>

	sustainability, e.g., BREEAM and the forthcoming Net Zero Public Buildings Standard.
<p>10. What other carbon savings are expected to result from the project? e.g., wider carbon savings across the economy resulting</p>	<p>The primary driver of carbon savings arising from this project come from its capability to act as a Carbon Influencer – forming synergies with other Islands projects whose primary focus is on sustainability or by improving the curriculum offering with regards to courses focussed on sustainability and related issues.</p> <p>It is anticipated that in the future, additional opportunities will arise through these same mechanisms, i.e., new opportunities for collaboration and new opportunities to teach a sustainability focussed curriculum. The college is committed to continue to develop these opportunities as they arise.</p>