Mortuary at University Hospital of Wales

Business Justification Case

(Document 2 of 3)

March 2023 – Final v10

CARING FOR PEOPLE
KEEPING PEOPLE WELL

Document Information

Status	Final
Date	13th February 2023
Authors	Adcuris/CVUHB
Circulation	CVUHB

Version	Date Issued	Summary of Change	Document Owner
Draft v1	1st November 2018	Initial draft	Geoff Walsh
Draft v2	31st May 2022	Strategic case reviewed/developed	Geoff Walsh
Draft v3	11th August 2022	Updated following review of Strategic Case by Service Lead	Geoff Walsh
Draft v4	7th December 2022	Section 4 updated	Geoff Walsh
Draft v5	19th December 2022	Updated following CMG	Geoff Walsh
Draft v6	3rd January 2023	Updated following further comments	Geoff Walsh
Draft v7	17th January 2023	Funding and affordability section updated	Geoff Walsh
Final Draft v8	23rd January 2023	Capital costs updated	Geoff Walsh
Final v9	9th February 2023	Updated following Investment Group	Geoff Walsh
Final v10	15th March 2023	Revenue cost text updated	Geoff Walsh

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Introduction

1.0 INTRODUCTION

1.1 Overview and Introduction

This business case seeks the approval for a capital investment of £3.385m to enable the Health Board to redesign/refurbish the Mortuary at the University Hospital of Wales (UHW).

The mortuary and post mortem facility at UHW was the subject of a regulatory inspection by the Human Tissue Authority (HTA) in August 2017. The facility was found to be non-compliant with the regulatory standards required to maintain a licence under the Human Tissue Act. This project, when complete, will address the issues highlighted in the Human Tissues Authorities inspection report and thereby ensure that the facility at UHW continues to be a licenced site under the HTA requirements.

1.2 Structure and Content of the Document

This document describes the Business Justification Case (BJC) for this investment. It has been developed to reflect the guidance set out in HM Treasury's Green Book (a Guide to Investment Appraisal in the Public Sector) and the Infrastructure Investment Guidance for the NHS in Wales.

This business justification case comprises the following sections:

- Strategic context (Section 2) which provides an overview of the context (both national and local) in which the investment will be made;
- Case for change (Section 3) which sets out the existing situation, the problems with the status quo, the key spending objectives and the benefits and risks of the planned investment;
- Available options (Section 4) which summarises the options that have been considered and how these have been appraised;
- Preferred option (Section 5) which describes in greater detail the option that is proposed and how this option optimises value for money;
- Procurement route (Section 6) which explains how the investment will be procured
- Funding and affordability (Section 7) which sets out the effect of the investment on the local health community;
- Management arrangements (Section 8) which explains how the implementation of the investment will be managed.

Strategic Context

2.0 STRATEGIC CONTEXT

2.1 Introduction

This section provides an overview of the context within which the investment will be made. It sets out:

- An overview of the organisation – the size and role of Cardiff and Vale University Health Board and the scale and nature of the demand in the area that it serves;
- The national, regional and local strategies that underpin this investment.

2.2 Organisational Overview

2.2.1 Profile of Cardiff and Vale University Health Board

Cardiff and Vale University Health Board (UHB) was established in October 2009 as part of a restructuring of NHS Wales and is one of the largest NHS organisations in the UK. It brings together the former Cardiff and Vale NHS Trust and two former Local Health Boards – Cardiff and the Vale of Glamorgan – with the core purpose of improving health and delivering integrated health services.

Since its establishment, Cardiff and Vale UHB's priority has been to provide safe, high quality and sustainable services that compare well with the best in the world, with a focus on developing centres of excellence that support the actions needed to progress and deliver the strategic mission 'Caring for People, Keeping People Well' with a vision that a person's chance of leading a healthy life is the same wherever they live and whoever they are.

Cardiff and Vale University Health Board is responsible for planning and delivering health services for people in Cardiff and the Vale of Glamorgan, a population of around 502,000 and is the main provider of specialist services for the people of South Wales – and for some services, the whole of Wales and the wider UK. This includes health promotion and public health functions as well as the provision of local primary care services (GP practices, dentists, optometrists and community pharmacies) and the running of hospitals, health centres, community health teams and mental health services. The Health Board employs approximately 15,000 staff and has an annual budget of £1.6 billion.

As a major teaching and research organisation, there are very close links to Cardiff University playing a significant role in the Welsh economy. This is alongside other academic links with Cardiff Metropolitan University and the University of South Wales. Training the next generation of clinical and non-clinical professionals, in order to develop expertise and improve clinical outcomes, is a key priority for the Health Board.

Figure 1: Map showing area covered by Cardiff and Vale UHB

The Health Board's hospital based services are currently provided from 6 hospital sites:

- University Hospital of Wales, which incorporates:
  - University Dental Hospital;
  - Noah's Ark Children's Hospital for Wales.
- University Hospital Llandough;
- Barry Hospital;
- Cardiff Royal Infirmary;
- Lansdowne Hospital;
- St. David's Hospital.

2.2.1.1 The Area Served and its Needs

The population served by the Health Board is:

- Growing rapidly in size, with the latest Welsh Government projections estimating an increase from 502,000 in 2021 to 521,000 in 2031, around 4%. In contrast to the previous projections published 4 years ago, the rate of growth in the Vale is predicted to exceed that of Cardiff, with growth in the Vale of 5.3% over 10 years compared with 3.4% in Cardiff. Actual population growth, particularly in Cardiff, will be highly dependent on progress with large housing developments;
- Relatively young in Cardiff compared with the rest of Wales. The proportion of infants (0-4 yrs) and the young working age population (20-39 yrs) is higher than the Wales average; this reflects in part, a significant number of students who study in Cardiff;
- Ageing – The average age of people in both Cardiff and the Vale is increasing steadily, with a projected increase in people aged 85 and over in the Vale of 33% over the next 10 years, and 9% in Cardiff; and

- Ethnically very diverse, particularly compared with much of the rest of Wales, with a wide range of cultural backgrounds and languages spoken. Arabic, Polish, Chinese and Bengali are the four most common languages spoken after English and Welsh. Cardiff is an initial accommodation and dispersal centre for asylum seekers.

2.2.1.2 Health Equity and Inequalities

There is considerable variation in healthy behaviours and health outcomes in the area, with variation in smoking rates, physical activity, diet and rates of overweight and obesity. Uptake of childhood vaccinations is also lower in more disadvantaged areas, and people are more likely to experience poor air quality. Life expectancy is around ten years lower in the most deprived areas compared with the least deprived, and for healthy life expectancy the gap is more than double this.

Deprivation is higher in neighbourhoods in South Cardiff, and in Central Vale.

The COVID-19 pandemic exposed these deep-seated inequalities, with impacts seen more heavily in the more deprived areas, and amongst Black, Asian and minority ethnic communities.

There are also an increasing number of people across Health Board's catchment area with diabetes, as well as more people with dementia as the population ages. The number of people with more than one long-term illness is increasing.

The Health Board don't yet know the long-term health impact of the COVID-19 pandemic on the population's health but expect there to be adverse impacts on mental well-being which could last for many years; and impacts from "long COVID-19". The Health Board also anticipate significant negative impacts on the wider determinants of health, for example levels employment and educational attainment; however, there may also be positive changes seen, for example in community cohesion and levels of walking and cycling.

With all these factors in mind, Cardiff and Vale University Health Board has further developed a number of clinical and wellbeing strategies with the ambition to progress the integrated health and social care programme to achieve joined up care based on home first, avoiding harm, waste and variation, empowering people and delivering outcomes that matter to them.

2.3 Business Strategies

This section summarises the business strategies for Cardiff and Vale UHB and related national, regional or local strategies.

2.3.1 National Strategies

Mortuary practice is subject to statutory regulation by the Human Tissue Act 2004 and the Human Tissue Authority was created to regulate the removal, storage, use and disposal of human bodies, organs and tissues.

Some of the key UK national guidance and standards that have shaped this BJC are:

Managing infection risks when handling the deceased (2018)	Code of Practice A – Guiding Principles and the Fundamental Principle of Consent (2020)	Code of Practice B – Post Mortem Examination, Codes of Practice and Standards (2017)

Figure 2: Key Strategies and Policies

2.3.1.1 Managing infection risks when handling the deceased (2018)

This publication provides guidance on managing the risks of infection from work activities which involve handling the deceased. It covers the safe handling, storage and examination of bodies and pathological specimens in hospitals, mortuaries and post-mortem rooms. It also provides guidance for those involved in funeral services (including embalmers) and exhumations of human remains.

2.3.1.2 Code of Practice A – Guiding Principles and the Fundamental Principle of Consent (2017) and Code of Practice B – Post Mortem Examination, Codes of Practice and Standards (2020)

The Codes give practical guidance to professionals carrying out activities which lie within the Human Tissue Authority's remit under the Human Tissue Act. Code A also applies to professionals carrying out activities under the Human Tissue (Quality and Safety for Human Application) Regulations 2007 (Q&S Regulations) and The Quality and Safety of Organs Intended for Transplantation Regulations 2012 (the Q&S (Organs) Regulations).

This Code contains information that is applicable to all establishments and professionals operating under the HT Act and the Regulations. It sets out four guiding principles on which the work of the HTA is founded and which should inform the actions of anyone undertaking activities falling within the remit of the HTA:

a) consent;

b) dignity;

c) quality; and

d) honesty and openness.

2.3.2 Local Strategies: The Health Board

2.3.2.1 2022 – 2023 Integrated Plan (June 2022)

This three-year plan describes:

- Key deliverables in ongoing readiness and response to the challenges of COVID-19 whilst turning focus to service recovery and redesign to respond to the ongoing and backlog of demand for Planned and Urgent and Emergency Care services;
- The strategic context and priorities which frame the Health Board's partnership approach to longer term system transformation and how this aligns with the immediate readiness, recovery and redesign plans;
- The enabling programmes that describe how recovery, redesign and transformation efforts will seamlessly align.

The financial recovery programme sets clear guiding principles to inform the cost reduction programme that:

1. Ensures our emphasis is driving quality and value and the plans must
    - Preserve or improve patient safety or quality
    - Preserve or improve access times to healthcare for patients waiting for services
    - Preserve or improve staff wellbeing
2. Invests in services with clear benefits realisation plans which more than cover the investment
3. Ensures a balanced focus on tertiary services for the wider population we serve, and the Cardiff and Vale population
4. Balances baseline operational cost reduction appropriately with Covid-19 cost reduction
5. Commits to eliminate our underlying deficit as a Health Board without expectation of increased resources from Welsh Government

The following diagram shows the integrated plan on a page:

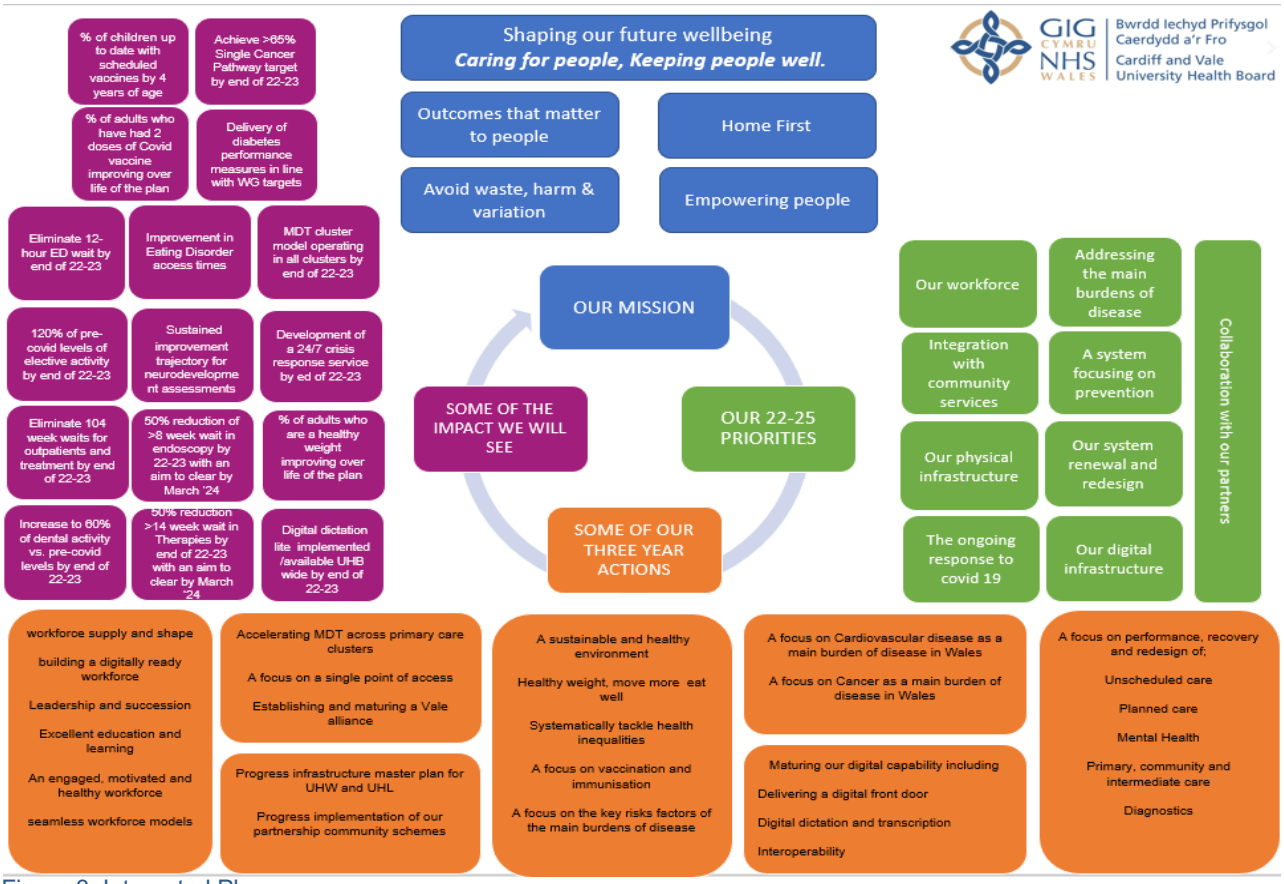

Figure 3: Integrated Plan on a page

2.3.2.2 *Shaping Our Future Wellbeing – Future Hospitals Programme Business Case (September 2021)*

This Programme Business Case (PBC) sets out the principles and component parts of the transformational change in the way the Health Board delivers its clinical services to the local and national population, and the associated infrastructure and service changes that need to take place to support the implementation of the clinical strategy and vision.

The proposed programme is comprised of the following constituent projects:

1. Project 1: Clinical service transformation in line with a new clinical model and vision, which underpin the physical elements of the programme. It will deliver world-leading services, while investing in creating much more co-ordinated and effective population health management;

2. Project 2: Potential redevelopment of hospital infrastructure at University Hospital Wales and University Hospital Llandough sites, enabling net zero carbon and including associated improvements to IT and digital infrastructure and medical equipment. This work will consider the options that present themselves based upon the Health Board's strategy and a comprehensive assessment of those options to determine a recommended preferred way forward;

3. Project 3: Development of an Academic Health Sciences Hub and a Life Sciences Eco-system to allow the Health Board, Cardiff University and industry players to collaborate and support innovation, research, and development.

The purpose of the PBC is to:

- Articulate an ambitious vision for the Board as a whole and the future of CVUHB as an anchor institution for the wider region;
- Articulate the case for change for the overall programme, going beyond just noting the poor quality of the existing estate;
- Articulate the clinical services strategy and the IT and digital strategies which underpin this, developed in line with emerging science and best practice from elsewhere, both for the local population and within the wider NHS;
- Set out an indicative longlist of options that would enable delivery of a set of critical success factors including the clinical services strategy, focusing on service change that needs to take place;
- Present the range of unquantified benefits the programme could be expected to deliver and the methodology for quantifying these in later stages;
- Set out possible commercialisation opportunities within the programme to assist with revenue affordability, such as the Academic Health Sciences Hub and potential private hospital;
- Set out the programme governance arrangements and outline the next steps in moving from the PBC to individual project business cases.

2.3.2.3 Cardiff and Vale People and Culture Plan 2022 – 2025

The impact of COVID-19 on the health and care system in Cardiff and the Vale of Glamorgan has been immense: services, processes and, vitally, people have all been changed in some way as a result of the pandemic.

While many people were able to adapt, innovate and face the challenges presented to them, the physical and emotional strain of doing so, as well as the toll of simply doing their jobs in such unprecedented conditions cannot be overstated.

The People and Culture Plan sets out the actions the Health Board will take over the next three years, with a clear focus on improving the wellbeing, inclusion, capability and engagement of the workforce and is the Health Board's opportunity to improve the experience of staff, to ensure the improvements that have been made over recent years continue, and to confront the challenges which have arisen as a result of the pandemic and subsequent recovery period.

The Plan is built around 7 themes which are based on the themes set out in the *Workforce Strategy for Health and Social Care*, with an added emphasis on retention in theme 3 to recognise the importance of retaining the workforce as well as recruiting new people:

- Seamless workforce models - to support multi-professional and multi-agency working through integration of Health and Social Care services and the development of

alternative workforce models to deliver a seamless, co-ordinated approach with partners based on outcomes that matter to the person

- Engaged, motivated and healthy workforce - to have a workforce that feels valued and supported wherever they work
- Attract, recruit and retain - to recruit and retain the right people with the right skills
- Building a digitally ready workforce - to have a workforce that is digitally ready, with both the technology available and the skills to utilise this effectively
- Excellent education and learning - to invest in education and learning to deliver the skills and capabilities needed to meet the future needs of the people we care for and support our people to progress their careers
- Leadership and succession - to have leaders in the health care system who embody inclusive, collective and compassionate leadership
- Workforce supply and shape - to have a sustainable workforce in sufficient numbers to meet the health and social care needs of the population.

2.3.2.4 Shaping our Future Clinical Services

In 2018 the Health Board identified the need to set out in more detail how clinical services need to develop over the next decade and into the mid-21st century to realise the vision set out in the strategy and to respond to the many drivers of change the Health Board is facing.

Shaping Our Future Clinical Services is the Health Board's proposed approach to developing more detailed clinical plans which is a clinically led process, and in relation to services delivered in the community, is being developed with public service partners. The Health Board has conducted an initial public engagement exercise over the winter of 2020-21 on Shaping Our Future Clinical Services to seek feedback from the public and partners on the proposed approach to the transformation and configuration of future clinical services. Shaping Our Future Clinical Services will continue to evolve as new treatments and approaches are developed and feedback and input from the public and partners shapes thinking and planning. With this in mind, Shaping Our Future Clinical Services does not describe all of services in detail. It signals how the Health Board will develop services overall, clarifying the role that each of the Health Board facilities will provide and what needs to change.

In relation to how the Health Board see its clinical services developing over the next decade, there are a series of overarching planning principles which guide this work:

- The Health Board will work collaboratively with neighbouring UHBs, Local Authority and other public and third sector partners to provide care through a connected health and social care system to improve health and wellbeing;
- Citizens should receive care at home or as close to home as possible – hospitals should only provide assessment or care that cannot be provided in the community;
- Patients requiring hospital admission should receive high quality, high value, and evidence-driven, safe and compassionate care;
- Hospital care should provide the appropriate package of specialist care co-ordinated to meet the needs of the patient and focussed on improving outcomes;

- Innovative workforce models, new technologies and a flexible digital platform across clinical and wider care providers will support new models of care;
- Redesigned clinical pathways and services driven by the Health Board's Transformation programme will deliver improved outcomes and value-based healthcare;
- Research & Development activities will enable patients to have access to a wider range of treatment options by participating in research and clinical trials;
- Creating a climate, with the necessary facilities, which facilitates and promotes clinical innovation and health inventions to benefit patient care through better outcomes and contributing to economic growth in the region.

The following figure is the draft shaping our future clinical services overview:

Figure 4: Shaping our Future Clinical Services overview

The delivery of the clinical services plan will be phased over 10 years, in line with evolving service provision, shaped by wide stakeholder engagement and enabled by continuing development of digital and infrastructure solutions.

The Health Board's long term, prudent and appropriate infrastructure plan aims to ensure that it is able to deliver services in environments which aid healing and recovery, and are fit for purpose, whilst being as adaptable as possible for further future change.

The long term vision for the current UHW site is to replace the current hospital to enable the re-provision of University Hospital of Wales (UHW2) within a health park and life sciences quarter in collaboration with Cardiff University and regional partners. The Health Board's vision is that the new hospital will be for: (i) patients from Cardiff and the Vale of Glamorgan needing emergency, high acuity or high intensity care (ii) patients from other Health Boards

in the SE and wider South Wales Regions in the Health Board's role as the hub for some regional and supra-regional service provision and (iii) patients from across Wales, in the Health Board's role as the largest provider of tertiary services in the country, requiring highly specialised regional services. It will be built with and have the latest design and technology for the full spectrum of specialities available 24/7 for local, regional, supra-regional and national services. The clinical approach for UHW is:

- Site for acutely ill and complex medical/surgical patients;
- Regional, supra-regional and national tertiary services;
- Acute services dependant on co-location with 24/7 specialist services e.g. Critical Care (L3) and specialised radiology;
- Referral and repatriation pathways agreed with regional Health Board partners. People supported back to the appropriate care location when no longer requiring high intensity/ specialist care.

However, this vision is currently in the initial stages of planning and will take a minimum of 10 years to deliver and the Health Board will need to meet demand for these services in the meantime. The condition and functional suitability of some key infrastructure and essential clinical accommodation means that there will need to be some significant interim capital investment to maintain essential, safe service provision until this vision can be realised.

2.3.2.5 Shaping Our Future Wellbeing Strategy 2015 - 2025

Shaping Our Future Wellbeing (SOFW) is the 10-year strategy for transformation and improvement at Cardiff and Vale University Health Board and underpins a strategic portfolio of programmes, which will provide a co-ordinated approach to transforming services into the future:

Figure 5: Health Board Strategic Portfolio of Programmes underpinned by SOFW

The SOFW strategy set out a vision for ensuring that everyone in Cardiff and the Vale of Glamorgan, whoever they are and wherever they live, has the same opportunity to live a healthy life. This vision was driven by the very stark differences in life expectancy and healthy years lived between the more affluent communities in the local population and those living in more deprived communities. The strategy is underpinned by four key principles:

- Home first;
- Empower the person;
- Outcomes that matter;
- Avoiding harm waste and variation.

In co-producing the *Shaping Our Future Wellbeing* strategy, the Health Board worked alongside over 400 people and by engaging with the public, staff and partners, a set of prudent principles and priorities was agreed by which the Health Board can deliver high quality, sustainable, person-centred health care.

2.3.2.6 Integrated Medium Term Plan 2022 – 2025

The Integrated Medium Term Plan (IMTP) is designed to capture the Health Board's core intentions, give clarity on priorities, be clear on the anticipated improvement and, importantly, help staff understand how their work contributes to the delivery of the Shaping Our Future Wellbeing strategy and whilst many of the objectives underpinning the strategy continue to have relevance for this plan, the Health Board recognise that, at the end of this IMTP period, it will be coming to the end of the strategy's timeframe. The Health Board will use the next 3 years to engage with all stakeholders to review the delivery against the strategy and develop a programme of engagement and co-production to develop a strategy for 2025-35.

Over the last two years, the Health Board have dramatically adapted the way it delivers services in response to the global Covid-19 pandemic and will continue to develop and encourage a culture of continuous learning and structured approach to improvement to reduce harm to patients and deliver better outcomes. This IMTP sets out how the Health Board will continue to remain responsive to the ongoing uncertainties, whilst also accelerating the pace of delivery of the SOFW strategy, reflecting on both the challenges and opportunities created by the pandemic and the way it was responded it.

This three-year plan describes:

- The key deliverables in ongoing readiness and response to the challenges of the evolving COVID-19 pandemic whilst balancing service recovery and redesign to respond to the ongoing and backlog of demand for Planned and Urgent and Emergency Care services;
- The strategic context and priorities which frame the Health Board's partnership approach to longer term system transformation and how this aligns with the immediate readiness, recovery and redesign plans;
- The enabling programmes that describe how the recovery, redesign and transformation efforts will seamlessly align.

On the back of a pandemic, how the Health Board plan and deliver services in the coming period will define the health and wellbeing for a generation. As part of moving back to a three-year approach to planning, and as the final phase of SOFW is entered the Health Board have taken the opportunity to fully reconsider within this plan what the specific focus and priorities need to be over the next three years:

Figure 6: IMTP Focus and Priorities

The IMTP is also supported by the development of the Health Board's *Strategic Clinical Services Plan*. This identifies the critical service redesign proposals and infrastructure developments required to enable a sustainable and high value service model that will support the future model of care.

The IMTP is also underpinned by the significant contribution that the Health Board can make to the *Foundational Economy in Health and Social Services 2021-22 programme*.

The Foundational Economy programme in health and social services focuses on:

- The direct goods or services bought (e.g. food for hospitals);
- The workforce directly employed;
- How the location and co-location of health and social care services affects communities and how they can access services.

2.3.2.1 Partnership Strategies and Priorities

Regional Partnership Board/ Integrated Health & Social Care Partnership

The Integrated Health & Social Care Partnership has been established under the direction of a Regional Partnership Board (RPB) as part of the requirements of the Social Services and Wellbeing (Wales) Act 2014. The purpose is to manage and develop services to secure better joint working between local health boards, local authorities and the third sector; and to ensure effective services, care and support that best meet the needs of the population.

From 1 April 2016, the Wellbeing of Future Generations (Wales) Act 2015 introduced statutory Public Services Boards (PSB) in each local authority area in Wales to improve economic, social, environmental and cultural wellbeing through stronger partnership working. In line with the Act, each PSB has assessed the state of wellbeing across the area as a whole and within its communities to inform the development of a Wellbeing Plan and set out a series of wellbeing objectives to contribute to achieving seven national wellbeing goals as set out by the Act.

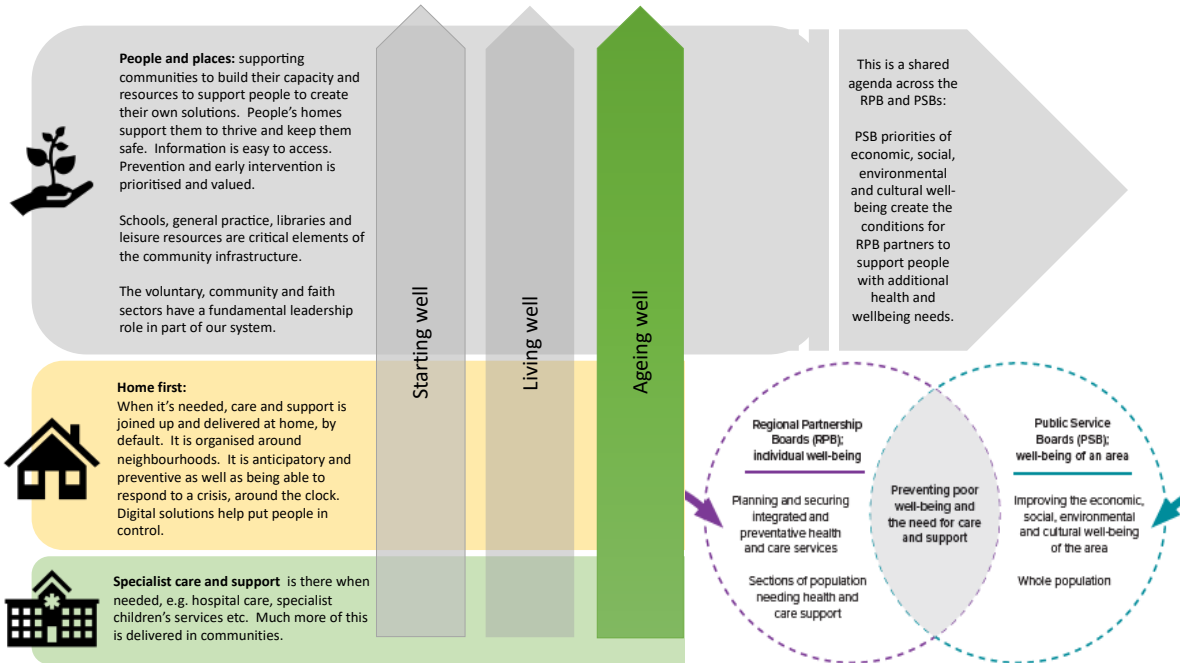

Figure 7: RPB and PSB shared agenda

Cardiff Wellbeing Assessment 2018 – 2023

Cardiff's Public Services Board (Cardiff PSB) brings together the city's public service leadership and decision-makers, including those from the Local Authority, Health Board, Natural Resources Wales, Welsh Government, the Third Sector and the Fire, Police and Probation services. The Wellbeing Plan sets out the Cardiff PSB's priorities for action over the next 5 years, and beyond. The plan focusses on the areas of public service delivery which fundamentally require partnership working between the city's public and community services, and with the citizens of Cardiff.

The plan contains the following Wellbeing Objectives:

- A Capital City that Works for Wales;
- Cardiff grows in a resilient way;
- Safe, Confident and Empowered Communities;
- Cardiff is a great place to grow up;
- Supporting people out of poverty;
- Cardiff is a great place to grow older;
- Modernising and Integrating Our Public Services.

2.3.2.2 Cardiff and Vale UHB Delivering Digital: a Five Year Strategy – Building a learning health and care system (July 2020)

This digital strategy has been being produced to provide a clear roadmap for how digital technology will enable the transformation of clinical services described by the Cardiff & Vale University Health Board overarching strategy, 'Shaping Our Future Well-being'.

The objective of the NHS in Wales was set out in the Welsh Government document A Healthier Wales, declaring the ambition for an integrated health and social care system which enables seamless care and the ability to promote health and well-being as close to home as possible. The document very clearly sets out the need for a modern digital infrastructure to enable this transformational change.

The Health Board's digital strategy has been written after engagement with staff across the organisation, taking particular note of the attendees of the clinical information management and technology group, the clinical boards, the executive board and information available from patient feedback. The strategy sets out a significant step change in the approach that the Health Board will take towards a digital future for healthcare services.

Digital services are a key enabler to transforming the way health and care services are delivered in Wales, and in enabling patients to have greater involvement in managing their health and well-being.

The following diagram summaries the aims of the Health Board's digital strategy over the next five years:

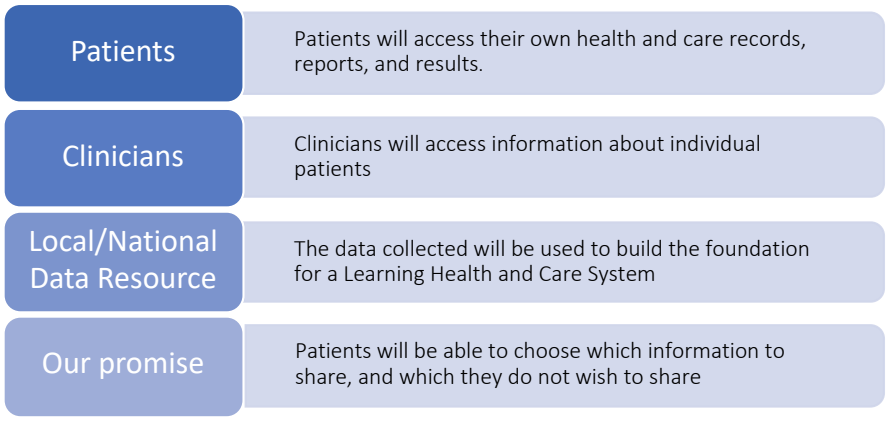

Figure 8: Overview of the five year aims of the Health Board's Digital Strategy

2.3.2.3 Cardiff and Vale UHB Estates Strategy (2017)

In 2018, the Health Board developed an estates strategy describing the current state of the estate and setting out a ten year programme for delivering the infrastructure needed in order to realise the vision and aims of the Health Board's strategy and to enable full implementation of the clinical services plan.

The plan identified that much of the current infrastructure is no longer suitable for current and future use and is not conducive to the best patient outcomes and experience, nor staff wellbeing.

The estates strategy sets out the case for change for major investment in the infrastructure, outlining the developments needed at key sites over the next decade. It provides a specific focus on the need to re-provide the majority of facilities currently at UHW and sets out a compelling vision to develop a new hospital as part of health science campus with university, government and industry partners.

The document remains a working document which is regularly updated to reflect progress and changes that are needed. Below is a summary of the objectives of the estates strategy:

Figure 9: Estates Strategy Objectives

These objectives are key to the achievement of the aspiration for carbon neutrality by 2030.

A parallel piece of work has also been undertaken to assess current location accessibility and the future potential to support the implementation of SOFW: In Our Community. This takes account of deprivation, access/travel times, condition and location of current facilities and opportunity to join up services with the local authority. The outcome suggests there is potential to streamline capacity and facilities, and the remodelling of the estate to reflect the strategic direction of rebalancing services to primary and community settings wherever possible.

Case For Change

3.0 CASE FOR CHANGE

This section sets out the case for change including the spending objectives and the drivers for change. It also highlights the benefits and risks associated with the project.

3.1 Spending Objectives

The project's spending objectives will typically address one or more of the following five generic drivers for intervention and spend. These are:

- To improve the quality of public services in terms of the delivery of agreed outcomes (effectiveness). For example, by meeting new policy changes and operational targets.
- To improve the delivery of public services in terms of outputs (efficiency). For example, by improving the throughput of services whilst reducing unit costs.
- To reduce the cost of public services in terms of the required inputs (economy). For example, through 'invest to save' schemes and spend on innovative technologies.
- To meet statutory, regulatory or organisational requirements and accepted best practice (compliance). For example, new health and safety legislation or building standards.
- To re-procure services in order to avert service failure (replacement). For example, at the end of a service contract or when an enabling asset is no longer fit for purpose.

The specific spending objectives for this business case are:

Spending Objective	Description	Measure	Time
1. Quality of Service	Maintenance of HTA license and improved productivity Storage of relevant materials	HTA License Number of post mortems carried out	This objective will be achieved when new facilities are commissioned
2. Quality of Environment	Improved environment for the deceased Improved local facilities for the bereaved Improved working environment for staff	Compliance with HBN/HTMs User feedback Staff survey	This objective will be achieved when new facilities are commissioned
3. Capacity	To provide sufficient capacity to ensure the demands of the population (both current and future) are met to include support to the Wales Institute of Forensic Medicine, whole Wales specialties and major trauma centre status along with increased demand associated with winter pressures and local emergency planning	Capacity deficient reports – daily	This objective will be achieved when new facilities are commissioned

Spending Objective	Description	Measure	Time
4. Effective Use of Resources	To provide an environment that promotes improved service efficiency through improved flow, productivity and improved patient and relevant material management pathway flows	Reduction in damage sustained to building fabric and infrastructure – reduction in avoidable maintenance costs Avoidance of HTARIs associated with body handling and maintenance of dignity of the deceased and retention of relevant mater	This objective will be achieved when new facilities are commissioned
5. Sustainability	To provide a service within an environment that is sustainable and accreditable, and with particular reference to HTA licensing requirements and reduction of ongoing maintenance costs.	HTA requirements Ability to recruit high quality clinical staff Maintenance costs	This objective will be achieved within 1 year of new facilities being commissioned
6. Practicality of Delivery	Ensure a solution which can be delivered in a timely manner and with services being maintained during construction with minimal disruption	Project programme / delivery date	Business Case approval by CVUHB and WG

Table 1: Spending Objectives

3.2 Current Arrangements

3.2.1 Current Service

The mortuary provides body storage and post mortem facilities to the hospitals of Cardiff and Vale University Health Board and acts as a public mortuary for the South Wales Central coroner, a population of 1.2 million. The service also hosts the Wales Institute of Forensic Medicine (WFIM), supporting home office post mortems for the constabularies of South, Mid and West Wales and Gloucestershire within England. The facility also supports small Disaster Victim Identification incidents.

The mortuary and post mortem service provides Human Tissue Act (HTA) licensed facilities at University Hospital of Wales (UHW) with an unlicensed body storage facility at Llandough Hospital (UHL).

Cardiff University manage the Wales Institute of Forensic Medicine (WIFM) and are strategic partners in the mortuary development programme. Other key stakeholders will include Welsh Government (WG), Welsh Health Specialised Services Committee (WHSSC), Cardiff and the Vale local authorities, coroners across Wales, Welsh and English Police forces and the home office.

The facility at the UHL is an unlicensed body store with the capacity to store 66 deceased patients including 5 bariatric patients. The facility at UHW is a licenced premise under the HTA and holds a licence for post mortem examination. The facility comprises 112 refrigerated storage spaces, including 4 bariatric spaces, 5 freezer spaces for longer term storage of the deceased and a dedicated 10 space paediatric refrigeration unit. Storage is provided across a number of fridge banks and a walk in cold store.

The post mortem facility at UHW has a five table main post mortem suite, comprising three standard post mortem tables, one paediatric table and one high risk table used for neuropathology cases. In addition, there is an adjacent room which is isolated which is used for home office post mortems and to contain 'high risk' post mortems. The post mortem suite is supported with adjacent office accommodation, police briefing rooms and evidence collection rooms.

The post mortem suite is supported by decontamination areas and staff changing rooms.

The facilities on both hospital sites have dedicated areas for viewing the deceased with the associated waiting rooms and support facilities.

Adjacent to the post mortem suite at UHW is a dedicated storage area of relevant materials obtained during post mortem examination including secured cabinets for material held under Police and Criminal Evidence Act (1984) (PACE) or the Criminal Procedure and Investigations Act (1996) (CPIA).

Access to the mortuary facility is highly restricted with TDSi card access and high levels of CCTV coverage. The funeral director vehicle access is partially protected by a descending shutter to protect the dignity of the deceased during transfer. There are two dedicated vehicle bays for the bereaved.

3.2.2 Operational Process

The following diagram shows how the patients progress through the department:

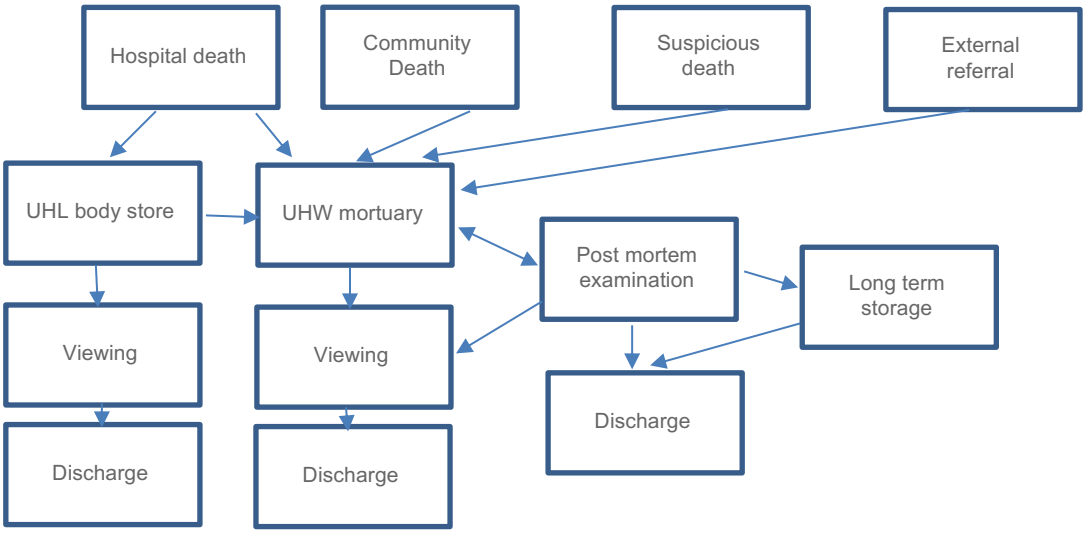

Figure 10: Patient Flow

3.2.3 Current Costs

Direct Costs		Recurring Revenue
Staff Group	**WTE**	**Staff £000**
2G282: Scientific Practitioner Band 8B	0.50	£41,713
2G271: Scientific Practitioner Band 7 (Quality)	0.50	£30,286
2C731: HCS Support Band 3	1.00	£28,744
2G251: Anatomical Pathology Technician Band 5	3.00	£124,265
2C731: Anatomical Pathology Technician Band 3	2.00	£28,744
0012H121: Anatomical Technical Officer Band 2	1.00	£26,329
Sub Total		£280,081
Non Pay Expenditure:		
Clinical Service & Supplies		£40,700
Establishment Expenses		£26,340
General Supplies & Services		£69,432
Premises & Fixed Plant		£126,678
Sub Total		£263,150
TOTAL		£543,231

Table 2: Current Costs

3.2.4 Current Funding

The table below summarises the income flows for the last 3 years:

	2019/20 £'000	2020/21 £'000	2021/22 £'000
Income by Funding Source:			
Local Authorities	£520	£499	£540
Total income	£520	£499	£540

Table 3: Current Income

3.2.5 Activity

The mortuary service handles approximately 3,000 deceased patients a year and undertakes upwards of 1,600 post mortems on both adults and children.

In addition the city of Cardiff is the most popular visitor destination in Wales attracting in excess of 21.3 million visitors during 2017.

The service also supports a home office post mortem service for over two thirds of the population of Wales and a Paediatric and Neuropathology service for the whole of Wales a population of 3.3 million people.

3.2.6 Current Issues

The mortuary and post mortem facility was the subject of a regulatory inspection by the Human Tissue Authority (HTA) in August 2017. The facility was found to be non-compliant with the regulatory standards required to maintain a licence under the Human Tissue Act.

Examination tables have no integral local exhaust ventilation and are non-ergonomic, flooring is in poor repair and assurance that it is fully sealed and non-permeable cannot be given. Repairs and maintenance commensurate with the age of the facility (building constructed in the 1960's) are reported and addressed as per the standard procedure.

Failure against the regulatory standards will result in suspension of licenced activities i.e. storage of the deceased and the undertaking of post mortem examinations and the potential revocation of the licence with associated regulatory actions. Prosecution could result in an unlimited fine.

Storage capacity is recognised to be suboptimal for the population demographic changes that have occurred during the life time of the current local authority local development plan with the population only growing. The storage capacity has breached on a number of occasions and formal breaches are reportable under the licence conditions to the HTA. Capacity planning requires the transfer of the deceased to an unlicensed body store, resulting in delayed discharges and potential missed viewing opportunities.

Patient access and access for the bereaved is limited.

Appendix 1 includes a report demonstrating the derogations of the current department against Health Building Notes (HBNs) and other design guidance.

3.2.7 Human Tissue Authority (HTA) Report

A HTA inspection was carried out in August 2017. The following are the key points raised:

A. Some of the tiles on the floors of the body store and the forensic and main PM suites are cracked and there is evidence of failure of the grouting, meaning that the floors are difficult to clean

B. There are areas of exposed porous concrete on the floor of the body store and main PM suite where the cold-room doors have been installed; these areas are contaminated and cannot be cleaned effectively

C. There are areas of peeling paint and exposed plaster in the forensic and main PM suites as a result of damp

D. The frames of the PM tables in the main PM suite are contaminated and require deep cleaning

E. There is a split in the base of the PM table in the forensic PM suite and the base of this table is not sealed with the floor properly, meaning that this area is contaminated and cannot be cleaned effectively

F. There is no access control on the door from the mortuary corridor to the room used as an observation gallery for the forensic PM suite and short-term storage of samples from forensic PM examinations

G. The lock on the viewing room doors to restrict access from the viewing room to the rest of the mortuary does not provide adequate security since it does not prevent the door from being opened. Although mortuary staff stay in this area of the mortuary whilst viewings take place, there remains a risk of visitors gaining unauthorised access to the mortuary from the viewing room

H. The area under the PM suite sinks is showing signs of damp and flaking plaster

J. The transition zone between clean and dirty including appropriate PPE Zones does not function appropriately

K. Exposed timber within ventilation zone cannot be cleaned

L. Sink units are not sealed

M. Shallow profile drainage channels and the inability to remove grates

N. Non-height adjustable PM beds

O. Shallow drainage channels and slip

The following diagram indicates the location of each of these points:

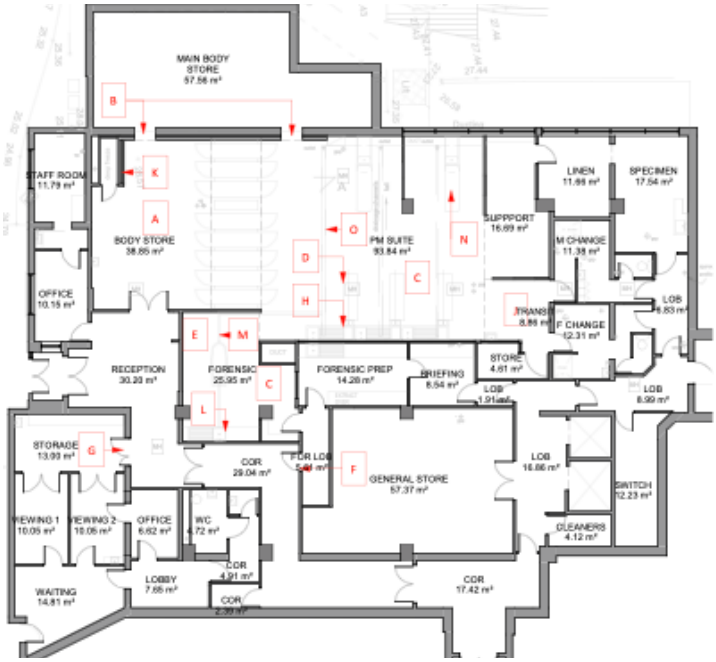

Figure 11: HTA Report Analysis

3.3 Business Need

It is recognised across Wales that births are continuing to outnumber deaths and immigration continues to outnumber emigration, resulting in a growing population (Office of National Statistics).

3.3.1 Local Development Plan for Cardiff

The Local Development Plan (LDP) for the Cardiff region is currently being revised. The consultation paper includes 3 options that identifies a population increase of between 2,140 and 14,790 associated with new homes and between 30,000 to 43,000 new jobs. [*Source: Cardiff City Council https://www.cardiffldp.co.uk/wp-content/uploads/Strategic-Options-Consultation-Paper-English-30th-November-2021.pdf*] .

The populations in Cardiff and the Vale of Glamorgan are expected to continue to increase, and a larger proportion will be aged 65+. Based on the 2018 population projections, over the next decade the Vale of Glamorgan is anticipated to experience the second largest percentage population growth of any local authority area (after Newport) with a projected growth of 6%. By 2043, the population of Cardiff and the Vale of Glamorgan is projected to have a greater proportion of people aged 65+, who will make up 20% of the population (a 4% increase from 2018). Those aged 65 years and above made up 14% of the population in Cardiff in 2018, and 21% in the Vale of Glamorgan (21% for Wales). By 2043, this is expected to be 18%, 27%, and 26% respectively. [*Source: Cardiff and The Vale of Glamorgan Population Needs Assessment 2022*].

3.3.2 StatsWales

The StatsWales 2018-based population projections for Cardiff and Vale are:

- The 2023 projected population is 505570
- The 2033 projected population is 524783
- Projected increase between 2023-2033 of 3.8%

The projected increase for the whole Wales population from 2023 to 2033 is 2.2%

What this means for Cardiff and Vale in terms of annual deaths is:

- The annual death estimate for 2022-23 is 4504
- The annual death estimate for 2032-33 is 4827
- This is a projected increase in deaths between 2023-2033 of 7.1%

The projected increase in annual deaths for the whole Wales population between 2023-2033 is 8.0%.

However, in addition to provide capacity for annual deaths the UHW mortuary facility supports the Wales Institute of Forensic Medicine, facilitating all homicide post mortems for South Wales Police, Dyfed Powys Police, Gwent Police and Gloucester Police services. Medico legal cases have extended lengths of stay, due to the nature of the cases presenting. The mortuary also supports Neuropathology and Paediatric post mortem services for the whole of Wales.

Furthermore, UHW is a dedicated major trauma centre which has a definite impact on the requirement to store and manage deceased patients.

Occupancy within the mortuary varies across the year. Mean space numbers on any given day at the UHW site across the year (2021) stands at 17.5 (median 16), and 24 for UHL. At certain points during the year, the Health Board exceeded maximum capacity and deployed temporary refrigerated units within the mortuary footprint. In order to ensure continuity of daily operations, the service must retain a minimum of 20 spaces across both sites.

Admissions captured by date show a peak low of admissions in winter periods, with the exception of the unprecedented demand during the COVID pandemic. The highest recorded number of admissions being 39 within a 24 hour period during January 2020.

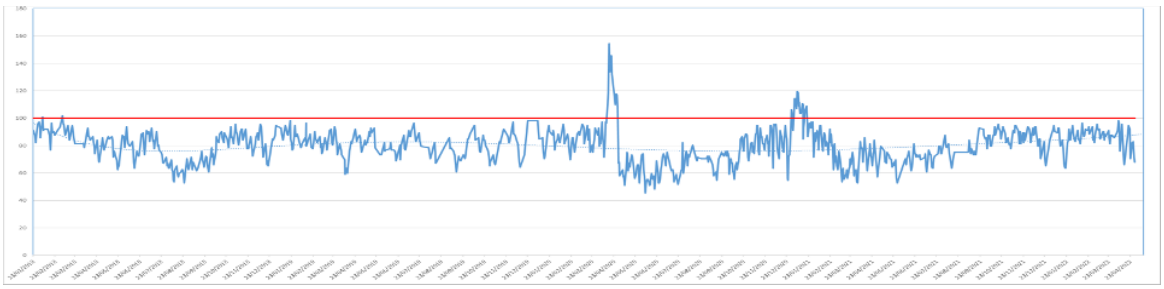

Figure 12: Mortuary Occupancy

The deceased remain in the care of the mortuary until collected by funeral directors. Length of stay varies from 7 calendar days to many months, dependent on case status and family's ability to facilitate ultimate disposal. On six occasions prior to the Covid pandemic capacity has been close to breaching and would have breached other than for active management and engagement with funeral director support at cost to the organisation.

The impact of the COVID pandemic and operational flow requirements currently indicate a deficit of 80 storage spaces.

The current capacity has been augmented with the procurement of a rapidly deployable Flexmort solution comprising two 12 capacity and one 4 capacity storage units, which are deployable within the current footprint.

The deficit remaining to support surges and increases in short term demand is 56 storage spaces.

3.4 Vision for the Service

The mortuary and post mortem service is a high profile, highly regulated, high risk service. Treating patients in death as they would be treated in life is a key ethos within the mortuary team. The facility is dated and has not matched capacity in demand. The service is often the only or last contact an individual bereaved or deceased person has with the organisation, the facility must maintain dignity in death offering the best environment to the deceased, bereaved and staff working in extremely challenging situations.

The organisation has been identified as a new trauma centre which will also impact on the occupancy of the mortuary, in addition the Welsh Government 1000+ lives campaign following the one day inquiry in stillbirths in Wales is significantly increasing the number of still birth post mortems being undertaken.

The use of non and minimally invasive post mortem examinations is increasing in use and has significant appeal to the bereaved and some cultural groups, adoption of the technology and co-location of services is a critical co-dependence.

The facility needs to ensure it has appropriate dedicated access for the bereaved, with secure and dignified access.

3.5 Proposed Scope

The facilities including, patient storage, viewing and identification, bereaved relatives areas, body handling areas, post mortem examination suites, transfer areas and storage areas for relevant materials as defined by the Human Tissue Act 2004 are within the scope of this project.

This scope requires an area of circa 887.91 sqm. A schedule of accommodation is attached as Appendix 2.

3.6 Main Benefits

This section describes the main outcomes and benefits associated with the implementation of the investment of the identified scope in relation to the identified business needs. Benefits criteria will be used to assess the options within the 'available options' section of this BJC.

Benefits are expressed in relation to the developed appraisal criteria that were derived from the spending objectives as follows:

- **CRB** - cash releasing benefits (e.g. avoided costs);
- **Non CRB** - non cash releasing benefits (e.g. staff time saved);
- **QB** - quantifiable benefits (e.g. achievement of targets);
- **Non QB** - non-quantifiable or qualitative benefits (e.g. improvement in staff morale);

Stakeholder Group	Main Benefits	Measure
Patients	Non QB - Maintenance of dignity in death QB - Rapidity of Post mortem examination Non CRB - Staff time saved (increased capacity - decreased transfers between sites)	HTA Audit compliance outcomes Achievement of KPI against scheduling Non cash releasing – time saving benefit, improved QMS compliance, 'time to care'
Staff	Non QB - Improved Morale QB - Improved productivity	Improved staff satisfaction outcomes decreased short term sickness episodes. Ability to redesign processes.
Health Community	Non QB - Maintenance of dignity in death QB - Rapidity of Post mortem examination	HTA Audit compliance outcomes Achievement of KPI against scheduling

Table 4: Key Benefits

3.7 Main Risks

The table below provides a summary of the key business and service risks that might affect any option for the delivery of the project:

Risk	Mitigation
Capital investment not secured	Ongoing discussions with Welsh Government
Scheme not progressed to programme, impacting on the service delivery and the HTA expectations	Regular programme review with Project Manager and Project Team to identify any potential impacts to the programme

Risk	Mitigation
Cost of scheme overruns (unexpected conditions)	Robust interrogation of costs by external advisors to ensure they are valid
Delayed approval by WG and resulting additional costs	Ongoing discussions with Welsh Government
There is a risk that additional capital is needed during construction - this can result from increases in costs for materials due to the global market etc.	The Health Board will endeavour to ensure there is sufficient contingency funding to mitigate reasonable increases in costs due to global markets
Currently the facility is not compliant with HTA standards. As the facility continues to age, without renovation works, it will continue to deteriorate. The ongoing deterioration and non-compliance presents a risk that the HTA could insist on the facility closing until improvements are complete	The HTA are aware of the efforts to update the facility. The Health Board is in close contact with the HTA to ensure the minimisation of the risk of closure
If the above is realised there is a reputational risk to the Health Board through media exposure	The HTA are aware of the efforts to update the facility. The Health Board is in close contact with the HTA to ensure the minimisation of the risk of closure

Table 5: Main Risks

The Health Board's approach to the management of risk for the preferred option, are described later within this document along with details regarding the risk register that includes mitigation against the above risks.

3.8 Constraints

The project is subject to the following constraints:

- Physical works will need to be delivered in order to have the least possible impact on service provision
- Project must be delivered through funding from the All Wales Capital Programme

3.9 Dependencies

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

- Approval from Welsh Government and release of capital form the All Wales Capital Programme

Available Options

4.0 AVAILABLE OPTIONS

This section describes the options considered by the Health Board and the assessment of the benefits and costs of those that were shortlisted.

4.1 Development of Options

Health Board staff from capital and estates, and strategic and service planning identified the following options for assessment:

Long List Options	
Option 0	Business as Usual
Option 1	Joint solution with local authorities
Option 2	Hire in a solution
Option 3	Refurbishment of the current facilities at UHW
Option 4	New build at UHW
Option 5	New build elsewhere within Cardiff

Table 6: Summary of Options

4.1.1 Option 0 – Business as usual

This option would result in no change to current facilities or working practices.

Advantages	Disadvantages
Cost neutral	The department would not comply with the requirements of the HTA
No change to estate or carbon footprint	A deficit in storage spaces would remain yet demand will rise
Summary – This option has been shortlisted for comparative purposes only as it would not meet the spending objectives	

Table 7: Option 0 - Advantages and Disadvantages

4.1.2 Option 1 – Joint solution with local authorities

South Wales Mortuary (Cardiff) (SWM01) is a temporary holding facility located in Queen Alexandra Docks, Cardiff. The facility operated from 13 April 2020 until 8 July 2020 providing additional capacity to the South West Local Resilience Forum (SWLRF) Excess Death Plan (EDP) in response to the COVID-19 outbreak. The facility remained in a '7 day ready' state until the end of September 20. The SWLRF has in place a contract clause to extend the use for an additional; 6 months. It is unlikely that the SWLRF will gain support from all partner agencies to trigger the clause, however the Health Board may be able to collaboratively work with the local authority to activate the extension.

Advantages	Disadvantages
The facility is proven to be acceptable and is ready to activate with a suite of procedures	Failure of acceptance of the contract variation
Risk assessments and equipment ready to activate	Non-engagement of partnership agencies to support operational activity
The space can accommodate up to 1000 deceased patients	
Proven partnership working across agencies	
Summary – This option has not been shortlisted as it would not be deliverable within the required timescales	

Table 8: Option 1 - Advantages and Disadvantages

4.1.3 Option 2 – Hire in a solution

In response to COVID19, Fews Industrial have developed a specifically designed, state of the art solution for temporary body storage that can be quickly deployed.

Advantages	Disadvantages
UK-based for rapid deployment	Hire charges
Self-contained, flexible design in width, length and height, insulated wall panelling and secure access doors	Security required (external or off-site)
A full fit out service, including the choice of non-slip floor coverings, water supply, electricity, lighting, toilets, HVAC (heating and air conditioning), Alarm Systems and CCTV if required	Identification of suitably discreet, secure and equipped location to set up additional structures which will allow application of HTA regulatory standards
Summary – This option has not been shortlisted as it would not meet the spending objectives	

Table 9: Option 2 - Advantages and Disadvantages

4.1.4 Option 3a – Refurbishment of the current facilities at UHW

This option would refurbish the existing unit to meet the findings within the HTA report only.

Advantages	Disadvantages
No new build required and therefore efficient use of current facilities	Time required to develop might extend beyond the date the additional storage is required
	Would not address all the existing issues and compliance with modern standards and guidance
	Difficult to implement whilst maintaining existing service and may incur significant spend on decant provision
Summary – This option has been shortlisted	

Table 10: Option 3a - Advantages and Disadvantages

4.1.5 Option 3b – Refurbishment of the current facilities at UHW

This option would refurbish the existing unit to meet the findings within the HTA report and provide a wider refurbishment.

Advantages	Disadvantages
Would meet all HTA and other standards	Time required to develop might extend beyond the date the additional storage is required
	Difficult to implement whilst maintaining existing service and may incur significant spend on decant provision
Summary – This option has been shortlisted	

Table 11: Option 3b - Advantages and Disadvantages

4.1.6 Option 4 – New build at UHW

This option would provide new mortuary facilities on the UHW site within a new building.

Advantages	Disadvantages
State of the art build	Time required to develop might extend beyond the date the additional storage is required
Would meet all HTA and other standards	No obvious space to build a new unit at UHW
Would provide enhanced facilities for families attending to view their relatives	Impact on carbon footprint
Summary – This option has been shortlisted	

Table 12: Option 4 - Advantages and Disadvantages

4.1.7 Option 5 – New build elsewhere within Cardiff

This option would provide new mortuary facilities on another site (not the UHW site) within a new building.

Advantages	Disadvantages
State of the art build	Time required to develop might extend beyond the date the additional storage is required
Would meet all HTA and other standards	Difficulty and inherent additional costs of finding a suitable site
Would provide enhanced facilities for families attending to view their relatives	May case some operational issues and increased costs for transporting those patients who have died at UHW
Summary – This option has not been shortlisted. It would not meet the spending objectives and could not be deliverable within the required timescales	

Table 13: Option 5 - Advantages and Disadvantages

Based upon the analysis above, options 1, 2 and 5 have not been carried forward for further investigation since they do not the meet critical timescales required or the principles laid out within the spending objectives for the project.

The options therefore considered as providing sufficient benefits to warrant further non-financial and financial appraisal are set out in the table below. These shortlisted options have been renumbered to aid the appraisal process:

Option	Description
Option 0 (4.1.1 Option 0 - Business As Usual)	Business as usual (carried forward for comparative purposes)
Option 1 (4.1.4 Option 3a – Refurbishment of the current facilities at UHW)	Do Minimum - refurbishment of the current facilities at UHW to meet the HTA findings (previously option 3a)
Option 2 (4.1.5 Option 3b – Refurbishment of the current facilities at UHW)	Refurbishment of the current facilities at UHW to meet the HTA findings and provide a wider refurbishment (previously option 3b)
Option 3 (4.1.6 Option 4 – New build at UHW)	New build at UHW (previously option 4)

Table 14: Shortlisted Options

4.2 Qualitative Benefits Appraisal

To further establish the preferred way forward from the above available shortlisted options, a qualitative benefits appraisal was undertaken which enabled the Project Team to determine which option satisfied the attributes essential for successful delivery to a greater extent.

4.2.1 Approach to Benefits Appraisal

The appraisal of the qualitative benefits associated with each option was undertaken during a workshop held on 6th September 2022 whereby the team:

- Identified a list of qualitative benefit criteria (this criteria was derived from further analysis of the spending objectives and main benefits as outlined within the case for change section of this business case);
- Weighted the relative importance (%) of each benefit criteria in relation to each spending objective (noting that all the criteria listed are important but there may be some that are more crucial to the success of the project than others);
- Scored each of the short-listed options against each of the benefit criteria on a scale of 1 to 10;
- Derived a weighted benefit score for each option.

4.2.2 Qualitative Benefits Criteria and Weighting

The qualitative benefits criteria were listed and weighted by the Team as follows:

Spending Objective	Benefit Criteria	Weight %
Quality and Safety of Service	1. Enables the Health Board to deliver high quality services that deliver best practice.	15
	2. Provides appropriate departmental adjacencies and minimises journey times both within the department and to end users	6
Quality of Environment	3. Provide safe and appropriate environment for mortuary services	14
	4. The facilities meet the relevant HTA regulatory standards and guidelines	17
Access/Capacity	5. Provides sufficient capacity to meet the current and future demands of the patient population, supporting the Wales Institute of Forensic Medicine, Neuropathology and Paediatric post mortem services for the whole of Wales and the UHW major trauma centre status	11
Effective use of Resources	6. Enables the Health Board to improve productivity and provide a service that supports patients, families and other stakeholders	13
	7. Maximise use of existing accommodation to enable estate rationalisation and improved utilisation	4
Sustainability	8. Maximise flexibility of facilities to enable the delivery of safe, sustainable and accessible services in the short to medium term.	8
Practicality and Timeliness of Delivery	9. Deliverable within an acceptable timescale to satisfy the requirements of the HTA inspection schedule	12
TOTAL		100%

Table 15: Qualitative Benefits

The chart below further shows these qualitative benefits weightings:

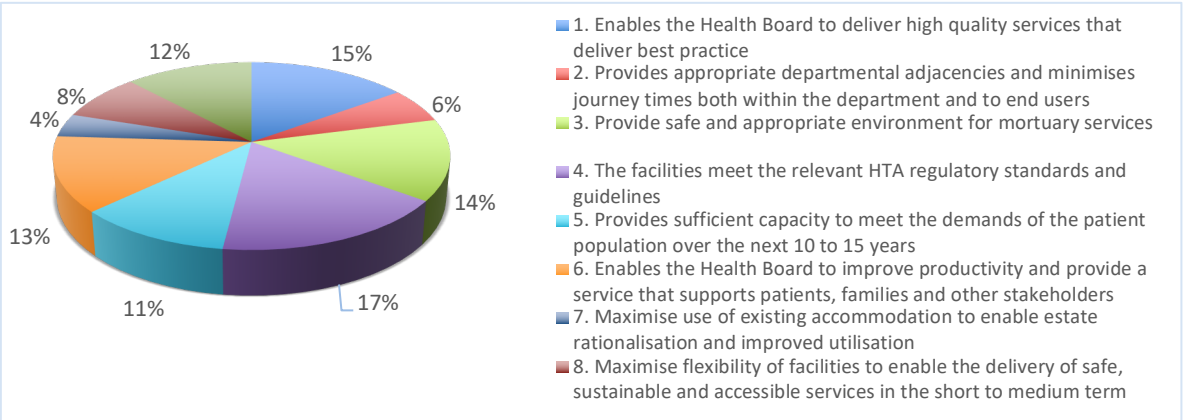

Figure 13: Qualitative Benefits Weightings Chart

4.2.3 Qualitative Benefits Criteria Scoring

The Team reviewed each of the shortlisted options against every qualitative benefit criteria listed above and then allocated a score of 1-10 (rising scale) based upon how well the option met each of the criteria. The Team scored on the following basis:

- 1 or 2 Option does not meet the criteria
- 3 or 4 Option meets the criteria to a very limited extent
- 5 or 6 Option partially meets the criteria but is acceptable
- 7 or 8 Option meets the criteria to a greater extent
- 9 or 10 Option fully meets the criteria

The score for each option was agreed through rigorous discussion by the workshop participants to confirm what had been applied was fair and reasonable. Following the conclusion of the scoring, each score is then multiplied by the weighting given to that criteria to provide an overall total score.

The summary results of this exercise were as follows:

Benefit Criteria	Weighted Scores			
	Option 0	Option 1	Option 2	Option 3
1. Maximising access to services	60	75	120	135
2. Improving the clinical quality of services	36	36	36	36
3. Optimising the environmental quality of services	70	70	112	126
4. Improved strategic fit of services	136	153	153	153
5. Meeting training, teaching and staff support needs	22	22	77	99
6. Making more effective use of resources	52	52	91	117
7. Providing flexibility for the future	28	28	36	4
8. Optimising the sustainability of services	16	16	56	72
9. Practicality and timeliness of delivery	12	84	72	24
TOTALS	**432**	**536**	**753**	**766**
RANK (weighted)	**4**	**3**	**2**	**1**

Table 16: Benefits Scoring

The results are shown graphically below:

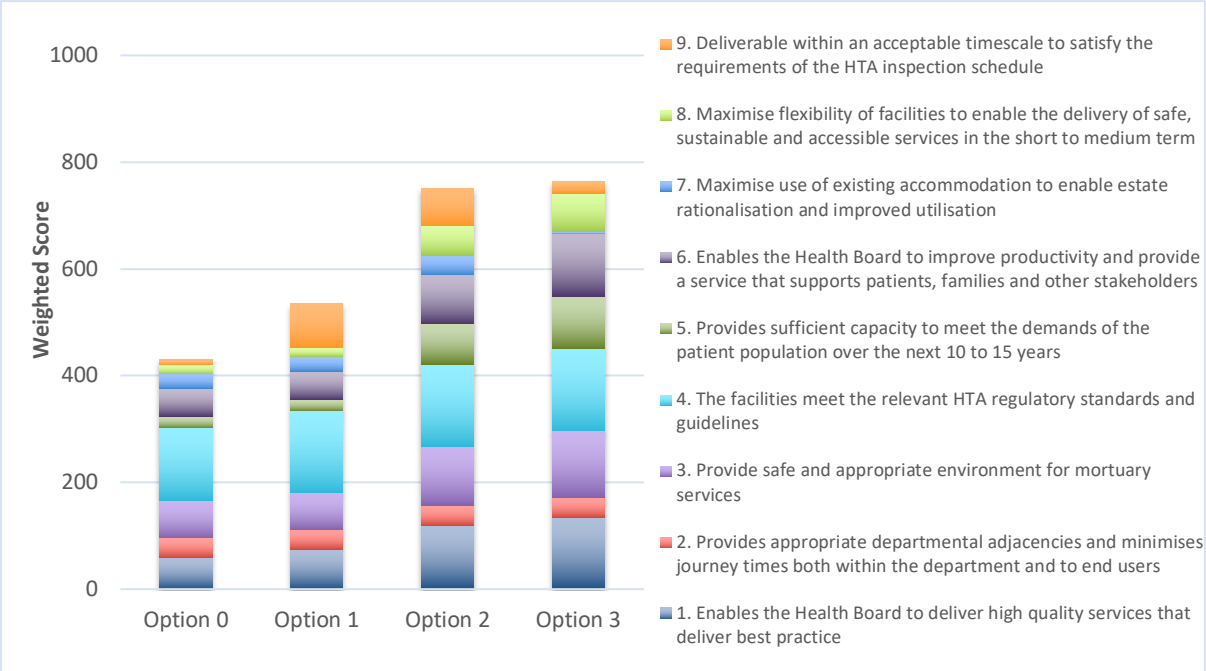

Figure 14: Qualitative Benefit Scoring Chart

4.2.4 Analysis of Key Results

Some of the key considerations that influenced the scores achieved by the various shortlisted options were as follows:

- Option 0: Business as Usual - this option ranked 4th due it not fulfilling the HTA requirements and to the current issues described earlier within this business case and in particular the lack of sufficient capacity to meet the anticipated demand
- Option 1: Do Minimum - refurbishment of the current facilities at UHW, this option ranked 3rd as there is only a small improvement over the current position and whilst this option would meet the HTA requirements it would not provide sufficient capacity or resolve some of the workflows currently experienced within the department
- Option 2: Refurbishment of the current facilities at UHW to meet the HTA findings and provide a wider refurbishment, this option ranked 2nd as it meets the HTA requirements, increases capacity and improves the internal flows within the department
- Option 3: New build at UHW, this option ranked 1st as it is anticipated that a new build would meet all required standards and provide fit for purpose, flexible accommodation

The list of attendees that joined the workshop are as follows:

Name	Role	Organisation
Geoff Walsh	Director, Capital Estates and Facilities	CVUHB
Alex Morris	Capital Project Officer	CVUHB
Amanda Phillips	Cost Advisor	Gleeds
Pingyan Lau	Finance Lead	CVUHB
Scott Gable	Cellular Pathology Services Manager	CVUHB
Sian Jones	CD&T	CVUHB
Thomas Hockey	Histopathology	CVUHB
Nick Durham	Architect	BDP
Jane McMahon	Healthcare Planner	Adcuris

Table 17: Option Appraisal Workshop Attendees

4.2.5 Sensitivity Analysis

Sensitivity analysis was undertaken by changing the ranking of the benefit criteria to evaluate the impact on the overall score for each option. The analysis included applying reverse, high, low and no weightings to the criteria.

The results indicated that when the options where no weighting was applied or if the weightings were reversed then option 2 becomes the preferred option. The full results of the appraisal and sensitivity analysis are attached in Appendix 3.

4.3 Economic Appraisal

4.3.1 Methodology and Assumptions

The economic appraisal has been conducted in accordance with the following guidance:

- The Green Book – Appraisal and Evaluation in Central Government plus supplementary guidance published by HM Treasury
- 5 Case Model guidance for SOCs, OBCs and FBCs (WG) and WG/IPAG FBC Template

The principles and assumptions used in this BJC are:

- Capital costs prepared to OB1 forms by Gleeds QS (dated October 2022) at BJC project Cost which has been used for the economic appraisal and a project outturn cost
- Optimism bias has been assessed according to the national formula with appropriate mitigations and has been included in the economic analysis and the table below. The OB forms do not include this and therefore the table below gives the full estimated capital cost
- Indicative Lifecycle costs prepared and included for FM engineering to QS parameters, a 7 year equipment lifecycle has been assumed for all options
- The economic model has been run for 60 years using discount rates of 3.5% for years 0-30 and 3.00% thereafter

- Revenue costs for each option as prepared by the Health Board reflecting the impact of each
- Planning risk has been included within the economic model

4.3.2 Capital Costs

These are summarised below:

Capital Costs at approval PUBSEC	Option 0	Option 1	Option 2	Option 3
	£000	£000	£000	£000
Works Costs	758.1	2896.7	3142.3	4826.5
Fees	0.0	547.5	593.9	912.2
Non-Works	0.0	0.0	0.0	0.0
Equipment Costs	0.0	25.0	25.0	297.6
Planning Contingency	0.0	294.7	318.1	512.9
Optimism Bias	0.00	439.7	485.7	972.2
Total Approval Capital Cost excl VAT	**758.1**	**4418.6**	**4780.0**	**7896.3**
VAT	151.61	486.7	526.3	1389.0
Total Approval Capital Cost	**909.7**	**4905.2**	**5306.3**	**9285.3**
Inflation	0.0	363.4	392.9	859.8
Total Outturn Capital Cost	**909.7**	**5268.6**	**5699.2**	**10145.0**

Table 18: Capital Costing Summary

Supporting analysis is provided through the BJC forms, which are attached in Appendix 4.

4.3.3 Economic Appraisal Outputs

Details of the economic appraisal are attached at Appendix 5 and summarised in the table below:

Economic Cost	Option 0	Option 1	Option 2	Option 3
	£000	£000	£000	£000
Net Present Value (NPV)	12,267	17,281	17,105	22,246
Equivalent Annual Cost (EAC)	499	645	638	830
Ranking of Development Options		2	1	3
EAC Margin Development Options		(1.0%)	0.0%	30.1%
NPC Switch Value		(155)	155	(5,368)

Table 19: Summary of Economic Appraisal Outputs

On the basis of the economic appraisal undertaken option 3 is the preferred financial solution but only by 1% over and above option 1. This is due to the lower revenue costs over the life of the project more than offsetting the higher initial capital and lifecycle costs. Option 3 is 30% worse than option 2 due to higher revenue costs and the additional capital investment.

Sensitivity testing indicates therefore a small change only is required to move between option 1 and 2. Option 3, however, is over 40% worse than option 2 on either revenue or capital.

Economic Cost Sensitivity	Option 0	Option 1	Option 2	Option 3
	£000	£000	£000	£000
Base Cost Change needed (Lower)/Higher				
Capital Costs		(3.1%)	2.8%	(55.4%)
Revenue Costs		(1.3%)	1.3%	(42.7%)
NPC Change Needed		**(155)**	**155**	**(5,368)**

Table 20: Economic Cost Sensitivity

Option 2 is therefore confirmed as the preferred option from a quantitative appraisal perspective but only very marginally to Option 1.

4.4 Combined Appraisal

The outputs of the Non-Financial and Economic Appraisals have been combined to assess which option offers the best benefit/cost outcome based on the number of benefit points delivered per EAC £000.

Combined Appraisal	Option 0	Option 1	Option 2	Option 3
Weighted Non-Financial Scores Margin Preferred	432	536	753	766 1.7%
Non-Financial Ranking of Options	4	3	2	1
EAC	498.0	645.0	638.5	830.4
Benefits Points Per EAC		0.83	1.18	0.92
Combined Ranking		3	1	2
Difference		(29.5%)	0.0%	(21.8%)

Table 21: Summary of Combined Appraisal Outputs

The output of the combined option appraisal means that option 2 moves well ahead of option 1 due to the additional non-financial benefits provided by option 2. Option 1, however, moves closer to option 3 because of the higher non-financial benefits of option 3 and becomes the lowest ranked option from the three options.

4.4.1 Sensitivity

Sensitivity analysis shows that either option 2 or 3 would have to change the non-financial scores by over 20% to switch the preferred option:

Combined Appraisal	Option 2	Option 3
Base Weighted Non-Financial Scores Scores to Switch Ranking	753 589.0	766 979.3
Equivalent Change	(21.8%)	27.9%
EAC	638.5	830.4
Benefits Points Per EAC	0.922	1.179
Combined Ranking	2	1

Table 22: Sensitivity Analysis

4.5 The Preferred Option

Option 2 has therefore been identified as the preferred option with a margin of in excess of 20% on non-financial sensitivity and combined scores. This option will provide a refurbishment and some remodelling of the existing mortuary at the University Hospital of Wales.

Preferred Option

5.0 PREFERRED OPTION

5.1 Identifying the Preferred Option

The preferred option is the one that optimises value for money and enables the Health Board to meet the spending objectives and benefits described within the strategic case section of this business case. This has been confirmed as option 2 - refurbishment of the current facilities at UHW to meet the HTA findings and provide a wider refurbishment to improve health and safety and flows within the department.

5.2 Description of the Preferred Option

The preferred option comprises the general refurbishment of the post-mortem suites, body stores and staff areas at the existing mortuary at the University Hospital of Wales. The mortuary is located on the lower ground floor of the existing west tower block. The project also includes the general refurbishment of the post-mortem suite at the existing mortuary at University Hospital Llandough.

The following tables shows the changes to permanent body storage capacity as a result of this project:

	Standard	Obese	Semi-Obese	Bariatric	Freezer	Paediatric	Foetal	TOTAL
UHW - Current	93			4	5	10		112
UHW - Future	68	4	56	7	5	10	9	159
UHL - Current	61			5				66
UHL - Future	61			5				66

Table 23: Changes to Body Storage Capacity

NB: A temporary body store will be provided at UHL with a capacity of 40 whilst the refurbishment is taking place at UHW.

Whilst there is an increase in body storage capacity, the Health Board recognises that in times of extreme demand the Health Board will work with partners to provide a temporary increase in storage capacity.

Further information is within the Estates Annex that accompanies this business justification case.

Procurement Route

6.0 PROCUREMENT ROUTE

This section outlines the proposed procurement method in relation to the preferred option, it considers the procurement options available for the project, the advantages and disadvantages of each and makes a recommendation on the preferred way forward.

6.1 Scope

The scope of works is:

- The Mortuary at the University Hospital of Llandough (UHL) will be re-conditioned as part of the development's scope of work. The existing building will work as a temporary facility during the building works in the University Hospital of Wales (UHW) Mortuary
- This proposal includes the redevelopment of the Mortuary department at the University Hospital of Wales (UHW). It improves the body storage capacity and Post-Mortem facilities including the provision of new office space, beverage room, accessible WC and reconditioning of the staff changing rooms.

The proposed construction programme is a period of 53 weeks.

6.2 Available Procurement Routes

The procurement options considered by the Health Board include:

- Traditional tender process;
- Single tender action to an individual contractor;
- Utilising the Scape Built Environment Consultancy Services ("BECS") Framework;
- Using the NHS 'Building for Wales' Framework.

In deciding on the most appropriate procurement route, consideration has been made of the following factors:

- The size and complexity of the works;
- A cost effective procurement route;
- Procurement which complies with EU Law (OJEU);
- The timescales and target date for delivery as programmed;
- The level of pre-works engagement with the contractor required under each procurement route;
- The current status of the project with regard to design.

Due to the specialist nature of the scheme, the procurement route to be utilised will be as follows:

- Scape Built Environment Consultancy Services ("BECS") Framework for design - RIBA Stage 2 – 4;
- NHS SBS Construction Consultancy Service (NHS Shared Business Services) for RIBA Stage 5 – 7;
- The Building Framework (Contractor).

The procurement strategies are in line with the procedures and practices as laid down in the varying frameworks. The construction elements of the proposed scheme were formally competitively tendered as part of the production and agreement of the target price. An open book approach to prices was adopted in line with the Framework and all costs were closely scrutinised to ensure that the Health Board is getting the best value for money. As a result of this process Tilbury Douglas have been appointed as the contractor as they demonstrated that they have considered the scheme and the nature of the works required.

6.3 Agreed Charging Mechanisms

The Health Board intends to make payments in respect of the proposed products and services as follows:

- The contract will be managed by Cardiff and Vale University Health Board under the NEC3 Option A

6.4 Community Benefits and Procurement

The Welsh Government actively seeks to derive benefits for the local community from procurement activity through the application of the Community Benefits policy approach.

This approach ensures delivery of social, economic and environmental benefits through effective application of the policy and is integral to any consideration in procurement.

Funding and Affordability

7.0 FUNDING AND AFFORDABILITY

This section of the business case considers the financial implications of the scheme on the financial position of the Health Board.

7.1 Capital Costs

This Business Case seeks approval to invest £3.385m from the All Wales Capital Programme, a breakdown of the capital costs is summarised in the table below:

	£000
Building/Engineering	3.355
Equipment Costs	0.030
Total Capital Costs	**3,385**

Table 24: Capital Costs for the Preferred Option

* Inflation costs are highlighted on the risk register

The full BJC form for the preferred option is included within the Estates Annex.

7.2 Capital Charges and Depreciation

A summary of the capital and depreciation for the project is as follows:

	£000
Impairment	2,528
Building / Engineering Depreciation	0,010
Equipment Depreciation	0,000
Accelerated Depreciation	0,000
Total Capital Charges/Depreciation	**2,538**

Table 25: Capital Charges and Depreciation

7.3 Impairment

Impairment is calculated based on advice from the District Valuer. The asset value post impairment has been depreciated over the estimates useful economic life provided by the District Valuer.

The outbreak of the Novel Coronavirus (Covid-19) has impacted market activity and the District Valuer is following RICS guidance and reporting on the basis of 'material valuation uncertainty'. Consequently the District Valuer is warning that less certainty and a higher degree of caution should be attached to their valuation than would normally be the case.

The following is a summary of the total impact of impairment by year until the planned opening of the new facility:

	2023/24 £000	2024/25 £000	2025/26 £000
DEL Impairment	0,000	0,000	0,000
AME Impairment	2,528	0,000	0,000
Total Impairment	**2,528**	**0,000**	**0,00**
Depreciation – Build	0,000	0,010	0,010
Depreciation - Equipment	0,000	0,000	0,000
Total Depreciation	**0,000**	**0,010**	**0,010**

Table 26: Impairment and Depreciation by Year

This BJC assumes all capital charges and depreciation will be funded by Welsh Government in each of the years as per the above.

7.4 Revenue Costs

There are no additional revenue costs per year expected on the preferred option. The staff requirement will remain unchanged as whilst the storage capacity increases, the layout will be more efficient and less spread out. There will not be any additional equipment required as that is already in place, so no additional costs associated with that. To note the newer equipment is more energy efficient. The footprint of the mortuary does not change, therefore no change to estates and facilities costs are expected.

7.5 Impact On The Income And Expenditure Account

The anticipated capital spend, capital charges and depreciation profile for the extent of the project is as follows:

	2023/24 £000	2024/25 £000	2025/26 £000
Capital (Ex VAT) - DEL	2,936	0,026	0,000
Depreciation	0,000	0,010	0,010
Total	**2,936**	**0,036**	**0,010**

Table 27: Impact on Income and Expenditure Account

All assets will be shown on the Health Board's balance sheet. The asset will be valued on completion and recorded on the balance sheet at that value. Subsequently it will be treated as per the Health Board's capital accounting policy.

7.6 Project Bank Account

The Health Board can confirm that a Project Bank Account will be prepared at the appropriate stage as the project exceeds the Welsh Government value threshold for the mandatory use of Project Bank Accounts.

Management Arrangements

8.0 MANAGEMENT ARRANGEMENTS

8.1 Introduction

This section of the BJC addresses the "achievability" of the scheme and identifies how the project will be managed from its initiation to completion. Its purpose is to describe the arrangements that will be required to effectively govern and successfully manage the project and deliver it in accordance with best practice.

This section has been drafted based upon the lessons learnt from previous project, incorporating proven arrangements, structures and processes to ensure the successful delivery of the project.

8.2 Project Management Arrangements

Robust project management arrangements are vital to ensure the implementation of the overall project and that effective control is maintained over the capital scheme.

For the Health Board to successfully deliver this project, it is vital that the following overall approach is taken for the organisation and management of the project:

- The Health Board will adopt the general principles of PRINCE 2 methodology in managing the activities and outputs of the project and will meet the requirements of the WHC (2015): 012; Infrastructure Investment Guidance; and subsequent guidance which may be issued during the projects' lifespan;
- The project will use NHS Wales standard documentation and products where these are available, and will seek to benefit from experience and best practice from other NHS Wales projects;
- Specialist professional and technical advisers will be employed for those activities where the necessary skills and experience are not otherwise available to the project team. The transfer of skills and knowledge from specialist advisers to the project team will be achieved wherever possible and appropriate.

In managing the project the Health Board aims to:

- Deliver the project on time and to budget;
- Ensure effective and proactive lines of accountability and responsibility for the project deliverables; and
- Establish user involvement at all stages of the project.

8.2.1 Project Reporting Structure

The reporting organisation and the reporting structure for the whole of the project is shown as follows:

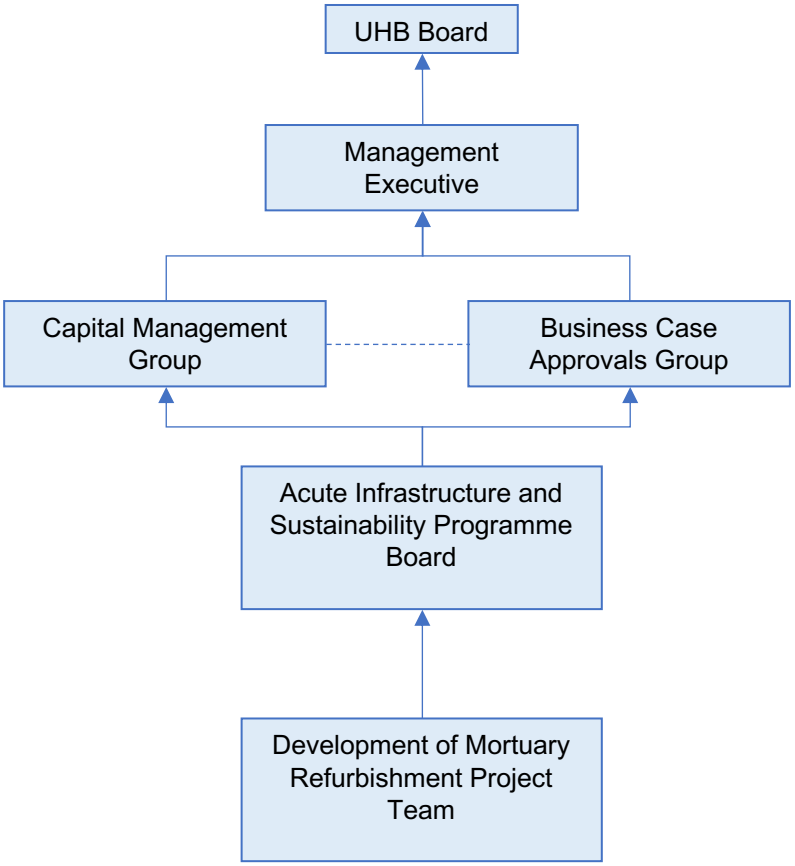

Figure 15: Project Structure

The purpose of the Project Team is to manage and co-ordinate, within the parameters set by the Project Board. The Project Team is responsible for the preparation of the business case for the project, which sets out the case for the proposed service and the capital implications, providing supporting justification in the form of the relevant strategic, economic, commercial, financial and management information required to produce the BJC.

8.2.2 Project Roles and Responsibilities

The project roles and responsibilities are as follows:

8.2.2.1 Investment Decision Maker

In line with the NHS Wales Infrastructure Investment Guidance, it is recognised that there must be clarity on decision making authority and management arrangements.

The Investment Decision Maker is the Cardiff and Vale UHB Board. Their role is to:

- Ensures that the appropriate level of business case is developed for submission to Welsh Government;
- Maintain commitment to the project;
- Authorise allocation of funds to the project;
- Oversee project performance;
- Ensure resolution of issues.

8.2.2.2 Senior Responsible Owner

The Senior Responsible Owner (SRO) of this programme and the project is the Executive Director of Strategy and Planning, Abigail Harris. The Executive Director will monitor the development and progress of the programme and project at Executive Board level and will exercise executive responsibility for the capital aspects of the scheme including compliance with Financial Instructions and Standing Orders; will be responsible for responding to internal and external audit scrutiny and ensuring the appropriate interim reports are made to the Capital and Estates Division of Welsh Government in line with existing directives.

8.2.2.3 Project Director

The Director of Capital, Estates and Facilities, Geoff Walsh, will fulfil the role of Project Director for the project. The Project Director will have ultimate responsibility for the project and will ensure the project is focused, throughout its lifecycle on achieving the objectives and delivering the projected benefits. The Project Director will ensure that the project provides value for money and will act as the point of contact in all dealings with contractors, consultants and outside organisations involved in the construction process.

8.2.2.4 Project Board

The Acute Infrastructure and Sustainability Programme Board will act as the Project Board for this project.

The Terms of Reference for the Project Board are included within Appendix 6.

The Project Board will support the delivery of the project through:

- Ensuring that the project scope remains consistent with the strategic programme;
- Providing formal approval at key stages to the project both in terms of business case development and formal submission to Welsh Government;
- Providing the formal authority for committing resources to the project;
- Ensuring that the scheme delivers appropriate value for money.

The table below shows the membership of the Project Board:

Name	Position	Organisation	Role
Abigail Harris	Director of Strategy and Planning	CVUHB	Chair
Geoff Walsh	Director of Capital Estates and Facilities	CVUHB	Vice Chair
Marie Davies	Deputy Director of Planning, Strategic and Service Planning	CVUHB	Member
Mike Bond	Director of Operations, Surgery Clinical Board	CVUHB	Member
Matthew Tenby	Director of Operations, CD&T	CVUHB	Member
Geraldine Johnstone	Director of Operations, Medicine Clinical Board	CVUHB	Member
Cath Wood	Director of Operations, Specialist Clinical Board	CVUHB	Member
Jason Roberts	Deputy Director of Nursing	CVUHB	Member
Meriel Jenney	Clinical Board Director, CD&T	CVUHB	Member
Guy Blackshaw	Clinical Board Director, Specialist Clinical Board	CVUHB	Member
Adam Wright	General Manager, Perioperative Care	CVUHB	Member
Lee Davies	Director of Operational Planning	CVUHB	Member
Steve Hill	Head of Finance, Surgery Clinical Board	CVUHB	Member
Hywel Pullen	Head of Finance, Specialist Clinical Board	CVUHB	Member
David Thomas	Director of Digital & Health Intelligence	CVUHB	Member

Table 28: Project Board Membership

8.2.2.5 Project Team

The Terms of Reference for the Project Team are included within Appendix 7.

The Project Team will support the delivery of the project through:

- Taking actions to ensure all stages of the project are achieved within the identified timescales, reviewing progress on a regular basis;
- Ensuring plans being developed fit within both the Capital Programme of the Health Board and the wider strategic service planning framework;
- Developing and regularly reviewing the Project Risks Register and ensuring appropriate mitigation plans are developed;
- Developing, agreeing and monitoring budgeting arrangements for project delivery;
- Identifying and developing appropriate capital and revenue financing arrangements for the project ensuring both affordability and sustainability;
- Every team member will have equal responsibility for identifying, at the earliest opportunity any major factors, risks or variances arising during the course of the project that may impact upon project delivery.

The table below shows the membership of the Project Team:

Name	Position	Organisation	Role
Geoff Walsh	Director of Capital Estates and Facilities	CVUHB	Chair
Owen Rees	Head of Capital Planning	CVUHB	Vice Chair
Ryan James	Project Officer	CVUHB	Member
Mike Bourne	CD&T	CVUHB	Member
Scott Gable	Cellular Pathology Services Manager	CVUHB	Member
Thomas Hockey		CVUHB	Member
Matthew Temby	Head of Operations and Delivery	CVUHB	Member
Clive Morgan	Assistant Director of Therapies	CVUHB	Member
Jane McMahon	Healthcare Planner	Adcuris	Member

Table 29: Project Team Membership

8.2.2.6 Other Roles

The development of this project will be supported by a range of corporate departments from within the Health Board, partner organisations and the public including:

- Capital Planning;
- Finance;
- Workforce;
- IM&T;
- External Stakeholders and Partner Organisations (including Local Authorities and Third Sector);
- Engagement and co-production with service users and local communities.

8.2.2.7 Project Plan

The dates detailed below highlight the proposed key milestones of the project:

Milestone Activity	Date
BJC submission to WG	February 2023
WG approval of the BJC	April 2023
Commence construction	May 2023
Completion and handover	April 2024

Table 30: Project Plan

A full project plan is included within the Estates Annex.

8.3 Use of Special Advisors

Specialist advisors have been used in a timely and cost-effective manner in accordance with the Treasury Guidance: Use of Special Advisors:

Specialist Area	Adviser
Project Manager	Gleeds
Architects	BDP
Structural and Civil Designers	BDP
MEP Advisors	McCann & Partners
Business Case Development	Adcuris
Cost Consultancy	Gleeds

Table 31: Specialist Advisors

8.4 Arrangements for Change Management

This project will enable the Health Board to redesign/refurbish the Mortuary at the University Hospital of Wales (UHW).

The Change Management processes required to plan and manage the implementation of the project will include the following tasks:

- To agree the staffing establishments consistent with the service delivery models and within the available financial envelope;
- To ensure that the timing of the planned changes is consistent with the smooth continuation of other services affected by the change;
- To assess any training needs arising out of the service, and to plan and implement a training programme as appropriate;
- To consider any other HR issues relating to the new service arrangements.

8.5 Communication and Engagement Plan

Effective communications, consultation and engagement is central and critical to the successful delivery of the project. The Health Board has a duty to involve people in the planning and delivery of health services and significant service developments.

The Health Board's philosophy around communication is simplicity, quality and consistency. All messages should be clear and easy to understand – tailored for their specific audiences; compliant with corporate guidelines; and in keeping with the Health Board's strategic aims.

The objectives of the Health Board's communication strategy are:

- Effectively communicate the rationale for the redevelopment through a range of tested channels to inform internal and external stakeholders, keep them up to date with progress and gain their views;
- Foster ongoing good relationships with the local communities around the hospital and with the media, promoting positive media coverage;

- Manage all publicity regarding the redevelopment project and ensure that accurate information is consistently available;
- Engage staff positively in the changes so that new ways of working are endorsed and staff understand and support the redevelopment;
- Evaluate the effectiveness of internal and external communications and engagement to ensure messages are understood and acted upon and engagement is positive.

The Project Team is to be used as the mechanism to communicate project progress to stakeholders, including patients and other stakeholders and interested parties.

- Project records will be maintained at the Health Board's central project office, in accordance with a defined records management system;
- Project records will be maintained in line with good audit practice and the filing structure determined and communicated via the Project Team;
- Notes will be taken at all meetings, to ensure the task focus of the project, prior to closure of meetings an action list will be agreed and then circulated.

8.5.1 Internal

- All members of the project groups will have individual responsibilities for cascading project information through their respective service functions;
- The Project Director will be responsible for producing ad hoc reports to the UHB Board.

8.5.2 External

- The Project Director will be responsible for providing the key link with major stakeholders not represented on the Project Board to report progress;
- Media Management will be in accordance with the Health Board's related policies and procedures;
- The Project Board may consider the production of regular briefings for internal and external communication purposes;
- All members of the project groups will have responsibility for cascading information through their respective organisations as well as their specific areas of responsibilities.

In particular with regard to this project the Cellular Pathology Services Manager has liaised with both Cardiff University and the Coroner to ensure that any plans they may have do not impact on the project and that they are kept up to date with progress. The latest discussion have taken place during December 2022 and March 2023.

8.6 Benefits Realisation Monitoring

Benefits are anticipated when a change is conceived and there are measurable improvements that result from the outcome which is perceived as an advantage by the organisation and/or stakeholders. Benefit management and realisation therefore aims to identify, define, track, realise and optimise benefits within and beyond the programme. A benefits realisation plan has been established that provides a framework for this aim and is overseen by the Project Board.

The plan outlines the key objectives, benefits and measures, which will be used to evaluate the project, it also shows who has the accountability for its realisation. This is in order that a meaningful assessment can be made of the benefits yielded by the project and to benchmark the assessment criteria themselves so that lessons learned can be fed back into future projects. It ensures that the project is designed and managed in the right way to deliver quality and value benefits to patients, staff and local communities. Timescales for the achievement of these benefits have been identified and included in the plan.

A copy of the Project Benefits Realisation Plan is attached at Appendix 8.

8.7 Equality and Health Impact Assessment

In line with the Health Board's ethos and philosophy an Equality and Health Impact Assessment (EHIA) of the business case has been completed which will inform key stages in the programme development to ensure that the proposals promote equality and positive health outcomes for all. A copy of the equality and health impact assessment is attached at Appendix 9.

8.8 Risk Management

8.8.1 Risk Register

A structured risk management process will be adopted. It has four main stages:

- Identification - to determine what could go wrong in order to identify the risks;
- Classification - to determine the likelihood of occurrence of the risk and impact on the project;
- Assessment - to understand and possibly quantify the impact on the project;
- Action - to identify countermeasures for dealing with unacceptable risk levels and institute monitoring and control mechanisms, identifying means of avoiding, containing, reducing and transferring risk.

The risk management strategy has been integrated into the project management procedures, with responsibility for implementation of the strategy resting with the Project Director. The current risk register for the preferred option is attached at Appendix 10.

8.8.2 Gateway Review Arrangements

Gateway Reviews undertaken across the health service have identified a range of common deficiencies within projects. These key areas have been reviewed under this project to ensure they were being managed as follows:

- Risk – A clearly structured risk management process has been put in place with regular review of the project risk register;
- Roles and Responsibilities – A clear project structure exists for the management of this project with the Senior Responsible Officer and Project Director identified;
- Skills and Resource – The UHB is experienced and well-resourced and is supported by legal, financial and technical specialists;
- Business Case - The need for a robust Business Case was identified at an early stage and has in part driven the project development;

- Planning – A programme was developed early in the scheme development and has been a strong management tool in moving the project forward;
- Stakeholder Issues – Stakeholder management has been a key focus in the projects development as it integrates various organisations;
- Benefits – A clear benefits realisation plan has been developed and is embedded in the project processes;
- Financial Issues – Finances have been robustly managed as the project has developed to ensure the project is affordable and value for money.

The impact of the programme has been scored against the risk potential assessment (RPA) model. Gate 0 (strategic fit) and Gate 1 (business justification) appraisals have been completed, in conjunction with the submission of this BJC. A copy of the RPA form is attached as Appendix 11.

8.9 Post Project Evaluation

The Health Board is committed to ensuring that a thorough and robust post-project evaluation (PPE) is undertaken at key stages in the process to ensure that positive lessons can be learnt from the project. The lessons learnt will be of benefit to:

- Cardiff and Vale University Health Board – in using this knowledge for future projects including capital schemes;
- Other key local stakeholders – to inform their approaches to future major projects;
- The NHS more widely – to test whether the policies and procedures which have been used in this procurement are effective.

Post Project Evaluation (PPE) is a part of the total quality process and the Health Board acknowledges its contribution towards a successful outcome in terms of:

- Greater assurance of total performance in terms of cost, time and quality;
- Clearer definitions of responsibilities;
- Reduced exposure to risk; and
- Improved value for money.

The Health Board has identified a robust plan for undertaking PPE in line with current guidance, which is fully embedded in the project management arrangements of the project. All processes will be managed by the project team and endorsed by the appropriate boards.

The outline arrangements for post implementation review and project evaluation review have been established in accordance with best practice and are as follows:

8.9.1 Post Implementation Review (PIR)

An evaluation covering a wider range of project evaluation criteria and benefits will be undertaken after a suitable bedding ‐ in period after the construction phase has been completed. It is anticipated that this will take place circa 6 to 12 months following completion of construction works.

8.9.2 Project Evaluation Reviews (PERs)

Further post project evaluations will take place at a later stage, to assess the longer-term outcomes of the project, when the full effects have arisen.

8.10 Audit and Assurance

Infrastructure Investment Guidance (2018) requires that all business cases include an Integrated Assurance and Approval Plan. This plan includes clarity on the role of the Audit & Assurance Team in this project. A copy of the audit and assurance plan is attached as Appendix 12.

8.11 Contingency

The Health Board can identify two major categories of project failure: failure to achieve business case approval to deliver the project; failure of the main contractor to deliver the project to time.

The contingency plan for the project in the event of failure to achieve business case approval is for the Health Board to continue to deploy temporary body stores, however, these are out with HTA requirements. There is significant risk to the organisation in respect of ongoing compliance with the licencing requirements of HTA and the expected outcomes and recommendations of the Fuller enquiry. Failure to comply would result in the loss of the licence to undertake post mortem examinations, and storage of the deceased, leading to a collapse of the medical post mortem, coroners post mortem and Home office post mortem delivery within the region.

In the event of Supply Chain failure, the Health Board would seek recompense in line with the agreed contractual arrangements and other contractor to complete the project.

8.12 Recommendation

This project, when complete, will address the issues highlighted in the Human Tissues Authorities inspection report issued in 2017 and thereby ensure that the facility at UHW continues to be a licenced site under the HTA requirements.

In addition, the project will address a number of other improvements to the facility including increased storage capacity, which recognises the increase of obese patients, remodelling the internal space to improve the flow and body handling and enhancement of the viewing and identification areas.

The Health Board would, therefore, recommend that WG give due consideration to the request for funding and approve the BJC, thereby ensuring that the facility at UHW can retain its licenced Mortuary facility for the foreseeable future, serving the communities of Cardiff and Vale in addition to our neighbouring authorities as required.