GIG CYMRU NHS WALES
Bwrdd Iechyd Addysgu Powys
Powys Teaching Health Board

Full Business Case

Bro Ddyfi Community Hospital

Health and Well-being Project

17 May 2018

Version 5

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1 Document Purpose & Structure

This FBC seeks approval for capital expenditure of £7,961,421 (The OBC stated an expenditure of £7,832,662 representing an overall increase of £128,759 which is fully detailed in the Financial Case) encompassing the following:

- **£4,268,516** for the upgrade of the front block of Bro Ddyfi Community Hospital (BDCH) which is fundamental in addressing estate compliance and fabric issues
- **£3,692,905** to allow, under the same scheme, a clinical reconfiguration/refurbishment of the area maximising utilisation and providing a community 'hub' and improving access to health and social care.

The redevelopment of BDCH has been included as a priority scheme in order to reconfigure departments to maximise capacity and deliver improvements in patient experience and throughput. The inclusion of Primary and Social Care services as part of the scheme is fundamental in delivering PTHB's objective of improving integration and access to services expanding core services to include well-being, prevention, and health promotion. It will also result in much improved patient accommodation, greater infection prevention and improve both health and safety requirements and statutory compliance, including compliance with the Equality Act 2010 and Standards for Healthcare. The provision of reconfigured and redesigned services within new and existing facilities will represent significant benefits for Powys Teaching Health Board (PTHB) and the local community.

This case will confirm the context against which the proposals have been planned, detailing the key drivers for change and the objectives and benefits that the proposals will deliver for the future of BDCH, the organisation as a whole and the local population. It will also confirm the affordability of the proposals for the development both in capital and revenue terms and detail any changes arising since Outline Business Case (OBC). As the FBC represents the procurement stage it will also recommend "the most economically advantageous offer", document the contractual arrangements and confirm the arrangements for successful delivery including post evaluation arrangements.

This FBC has been prepared using the agreed standard and format for business cases using the Five Case Model, which comprises the following key components:

- **The Strategic Case:** this sets out the strategic context and the case for change, together with the supporting investment objectives for the scheme
- **The Economic Case:** this demonstrates that the organisation has selected the choice for investment which best meets the existing and future needs of the service and optimises value for money (VfM)
- **The Commercial Case:** this outlines the content and structure of the proposed project
- **The Financial Case:** this confirms funding arrangements and affordability and explains any impact on the balance sheet of the organisation

- **The Management Case:** this demonstrates that the scheme is achievable and can be delivered successfully to cost, time and quality.

2 Executive Summary

2.1 Introduction

This FBC seeks approval to invest of **£7,961,421** with a construction period of 12 months from approval to completion. This includes **£4,268,516** for the upgrade of the front block of Bro Ddyfi Community Hospital (BDCH) which is fundamental in addressing estate compliance and fabric issues, alongside a further **£3,692,905** for a clinical reconfiguration/refurbishment of the area in order to support the Health Boards plans to integrate primary care services onto the site and establish BDCH as a health and well-being facility for the local community. The facility will also provide a base for health, local authority and third sector teams, encouraging improved integration and efficiency and create a community 'hub' to improve access to health and social care, wellbeing, prevention and health promotion facilities.

2.2 Strategic Case

2.2.1 The Strategic Outline Case

The proposals for the front block of BDCH outlined in this case deal with two fundamental issues.

2.2.1.1 Compliance

In a compliance review undertaken in 2014 by Powys Teaching Health Board (PTHB) it was identified that the front block of BDCH had a medium to high risk of non-compliance. Current backlog maintenance costs for the front block are estimated at **£2,741,500** (**£4,268,516** inclusive of fees and VAT) and includes fundamental issues including infrastructure, water ingress and first floor accommodation which has become unsafe. Full details of the compliance issues associated with the front block of the hospital can be found in section 3.1.1.1. In addition, the current building condition has led to a significant proportion of available accommodation being unused or poorly utilised, such as the unsatisfactory storage of medical records in potential clinical space.

In focusing predominantly on the front block, the proposals set out in this case deal with **66%** of the hospitals overall backlog maintenance and all items which have been identified as '**medium-high'** or '**high'** risk of non-compliance.

2.2.1.2 Service Delivery

In terms of service delivery the proposals firstly provide improved/compliant accommodation for services currently being delivered from accommodation in the front block of BDCH. These include:

- Adult Mental Health Services
- Women and Children's Services
- A proportion of Outpatient services

- Catering department

In addition to these current services PTHB have identified that by relocating archive records to a suitable off-site facility, capacity would be released to develop and enhance the number of services available. The project therefore provides PTHB with an opportunity to reshape the way that community health and well-being services are delivered. The service model has been developed to focus on:

- Integration of Primary Care services
    - Relocating GMS services from Machynlleth Medical Centre
- Integration of local authority including social services
- Integration of physical and mental well-being
    - A broader range of teams working together to provide a more holistic service
    - Accessibility and dementia friendly design
- A range of ambulatory/outpatient care, with an emphasis on care closer to home
- Improvements in Women and Children's Services
- Improvements and further integration of mental health services
- Improvements in end of life care
- Integration of a range of partners across health, third sector and community
- A community hub to improve access to health and social care, well-being, prevention, and health promotion services

2.2.1.2.1 Revenue Implications

One of the key drivers for this scheme is the delivery of care closer to home, and the ability to treat patients within county wherever possible. The benefits of working with colleagues in BCUHB and HDUHB is recognised to better develop services for people in Mid Wales. This forms part of the ongoing work being undertaken by the Mid Wales Collaborative.

The potential revenue implications are explored in section 4.3.2 and include the following considerations:

- The relocation of primary care services from Machynlleth medical practice representing an annual saving of **£83k**
- Avoided costs of planned extension to Glantwymyn Health centre equating to **£5.5k** (excluding VAT) per annum in rental costs (approximately **£200k** over a 30 year life)
- Reduction in backlog maintenance representing a **66%** saving
- More efficient building – reduction in heating costs by **47.9%** representing an estimated annual cost saving of **£14,840**. Alternative energy opportunities include PV panels to a proportion of the roof which, for a **£10,000** investment would have a 3 year pay back period.

- Improved recruitment & retention of staff
    - The creation of a sustainable workforce is a particular challenge in largely rural areas and is a fundamental objective for the reconfiguration of BDCH. Not only will the improved environment and staff accommodation to improve recruitment and retention but there are also plans to improve training and create a centre of excellence in integrated Primary Care. The GMS area includes a registrar's room which is required in order for the GP Partners to become a training practice which is central in their future development plans.
    - At Llandrindod Wells the design was developed to ensure that staff comfort, efficiency and training facilities were key drivers in attracting staff and medical students. The design of the new birthing unit has secured the appointment of a specialist sonographer who has returned to Powys specifically to work in the unit.
- The provision of bookable rooms predominantly for use by community and third sector services representing a potential income of **£32.5k** based on 5 number rooms booked for 3 sessions per week at £42 per session (with remaining session capacity for internal and charitable/non-charged use). This would also offer valuable future expansion space which could enable the future relocation of Glantwymyn Health Centre and a subsequent further annual saving of **£39.5k**. It is also likely that some services such as dental may require additional capacity in the future.
- Extending the Catering department to offer patient/visitor refreshments and more choice/provision for staff with an estimated revenue increase of **£15-20k** per annum

Despite the fact that this project is not primarily driven by revenue benefits, the proposals detailed in this case will demonstrate a marginal revenue benefit after taking into account the potential increased costs including:

- Increased maintenance/running costs due to increased capacity/floor area
- Staffing implications including the requirement of a new receptionist
- Offsite records facility – This issue currently sits with PTHB's Information Governance Group and an assessment of the volume of records is being undertaken and sits outside of the scope of this project.

2.2.2 The Strategic Context

In order to ensure a strategic fit with the proposals detailed in this case the following drivers have been considered.

2.2.2.1 Health Board Priorities

Due to the rural nature of Powys, PTHB is primarily a commissioning organisation with the largest proportion of its budget devoted to commissioning secondary healthcare and hospital services (see section 3.2.1). As such PTHB has three strategic challenges for the future which these proposals address:

- Designing and delivering a clinically and financially sustainable rural service model, providing as much care as close to home as possible through a continued shift from hospital to community based models of care and further integration of services
- Meeting the changing needs of Powys residents as demographic change and improvements in healthcare continue to make their impact felt on demand for, and cost of, services; working in partnership to meet the needs of the Mid Wales population through the MWHCC
- Working with partners and the public to support sustainable rural communities in a period of public sector austerity.

2.2.2.2 Local Population Needs

Powys is largely rural, which leads to many particular challenges, including those of isolation, transport demands and lack of critical mass. It is widely recognised that some of the major determinants of health such as physical and social isolation, access to transport services, poor housing and lower than average earnings, impact disproportionately on rural communities. Particular challenges include:

- An ageing population (higher than the national average)
- Access to services due to a predominantly rural and thinly spread population
- The role of Primary Care to ensure the most efficient possible use of resources

2.2.2.3 Local Policy Drivers

The key local policy drivers detailed in this case include:

- Health and Care Strategy for Powys
- The Powys Dementia Plan
- PTHB's Programme of Capital investment projects

2.2.2.4 National Policy Drivers

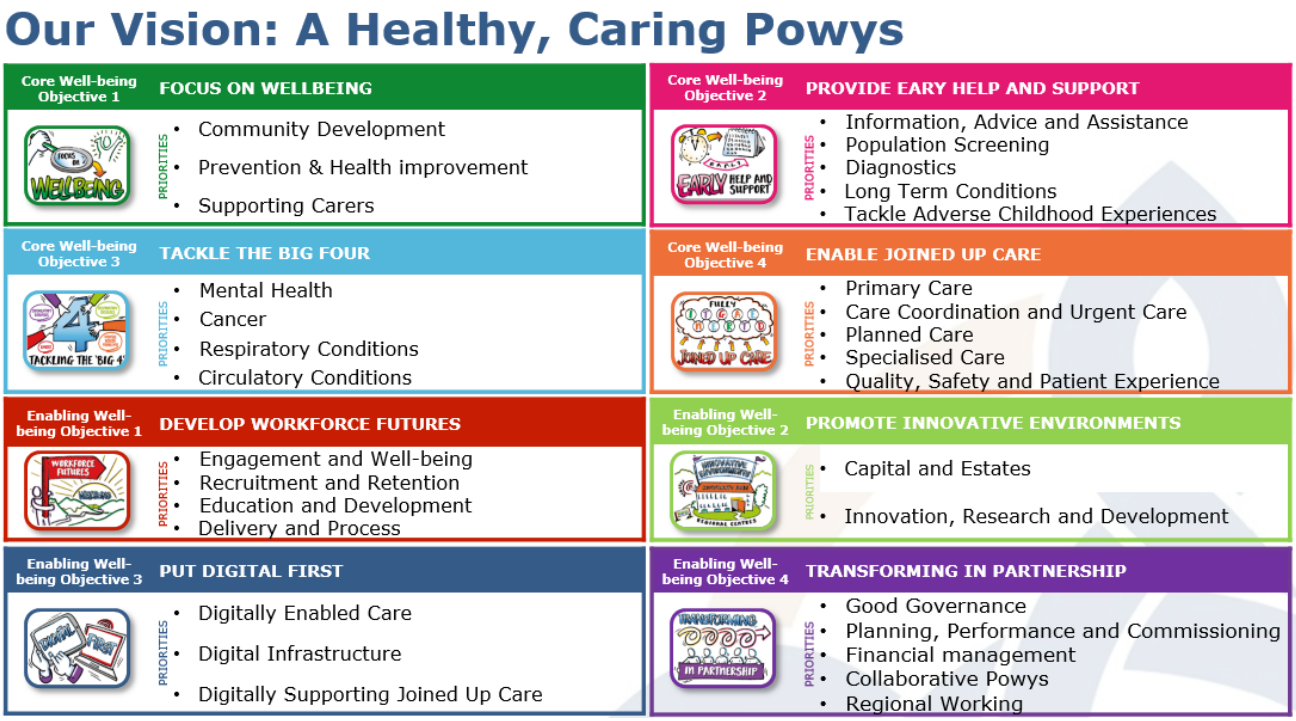
Nationally the scheme aligns with the key themes in "2015/16 NHS Wales Planning Framework" and the three organising principles of quality and safety, prudent healthcare and health inequalities (as articulated in PTHB's 2017/18-2019/20 Integrated Medium Term Plan & Health Inequalities Strategy). Specifically the Planning Framework emphasises both **shifts of services from hospital to primary and community care settings** and the need to **develop integrated services to improve care and support for people**. These are the two key drivers for this scheme. The scheme is also in line with policies that articulate the shift of care as close to home as possible and emphasises the need for access in more flexible ways delivered in more flexible facilities. The key national drivers for this scheme are listed below:

- Prosperity for all: the national strategy (Wales) 2017

- The Well-being of Future Generations (Wales) Act 2015 (WFG Act)
- The Social Services and Well-being (Wales) Act 2014 (SSWB Act)
- The Public Health (Wales) Bill November 2016
- Our Plan for a Primary Care Service for Wales up to 2018 (2015)
- Taking Wales Forward (2016-2017)
- The Welsh Governments Tackling Poverty Plan
- The Welsh Language Measure (Wales) 2011

2.2.2.5 Key Aims and Strategic Objectives

Taking into account the local and national policy drivers, PTHB's purpose, vision and strategic goals set out the long term aims of the Board. The vision "**A Healthy, Caring Powys**" is supported by the following aims and strategic objectives:



In line with Welsh Government direction, PTHB has five organisational principles underpinning the refreshed Integrated Medium Term Plan 2018/19-2020/21 (IMTP):

1. Prudent Health and Care
2. Quality, Safety and Patient Experience
3. Well-being of Future Generations
4. Health Inequalities
5. Integration (Including Social Services and Well-being Act)

2.2.2.6 Response to Policy and Strategic Drivers

The focus and direction of PTHB's strategic direction is determined by a range of drivers which brings together national policy, local needs and the need to comply with statutory requirements for organisational delivery.

This investment therefore proposes the remodelling and refurbishment of the front block of the building to incorporate primary and community services onto the site allowing the hospital to become an integrated Diagnostic, Assessment and Treatment hub.

2.2.3 The Case for Change

The improvement to the front block of BDCH has been identified as a priority scheme for PTHB due to significant deterioration of the building fabric which, if not addressed, could potentially lead to closure. Machynlleth has a high level of rural deprivation which would be further exacerbated by the closure of services delivered in BDCH. The nearest district general hospital is at Bronglais Hospital in Aberystwyth, 18 miles away (32 minutes) ; and a smaller community hospital is based at Welshpool, 37 miles away (56 minutes) . For specialist services, residents may be expected to travel as far as Swansea, Wrexham or Shrewsbury.

As BDCH is both historically significant and fundamental in terms of local service delivery the proposals in this case focus on the BDCH site and what role the hospital will take in the future.

2.2.3.1 The Status Quo

The Status Quo describes the issues faced by PTHB in maintaining the Status Quo at BDCH and for primary care services in the locality. These are detailed in section 3.3.3 and summarised below:

- Reception and Patient Services
    - There is currently no main reception at BDCH
    - The current system is unable to respond to changes in hospital activity
- Women & Children's Services
    - The current accommodation is not fit for purpose and the spaces could be reconfigured more efficiently
    - The lack of a dedicated group room does not support aspirations to increase group activities such as baby massage and weaning groups
- Adult Mental Health Services
    - The current location for adult mental health services is not appropriate
    - The environment is not fit for purpose
    - The route to the department is not satisfactory for staff or service users
    - There are issues associated with security and lone working
- Outpatients

  - Services such as District Nurses and Podiatry would benefit from being integrated with Primary Care
  - This would create additional capacity in Outpatients and thus enable the enhancement of eye care services locally. The current ophthalmology service could expand and include sessions by the local Optometrist improving integration and access to services.
  - The main issue with this area is the lack of a main reception point. In order to meet current HBN guidance a main reception should be easily identifiable, open and welcoming which is currently not the case. Additionally, there is no observation to patient waiting areas which is also desirable.
- Medical Records
  - A proportion of the accommodation is currently being used to house medical records (in unsatisfactory accommodation) which could be utilised to create additional clinical capacity
  - The storage of these notes provides governance and safety issues as live and archived medical records are stored in rooms which are not fire compliant.
  - The live and archived notes stored at BDCH occupy **9** rooms totalling **132sqm**
- Catering
  - The current location of the kitchens would become problematic if the front block of the building were to be refurbished and needs to be relocated to facilitate changes to the clinical design
  - The current kitchen equipment is largely coming to the end of its life and the current layout is not efficient and contravenes aspects of fire regulations.
  - Limited meals/refreshments are available to staff and there are currently no facilities for visitors
- Facilities Management
  - There is a lack of compliant support accommodation including cleaners' cupboards, disposal holds and storage
  - The current facilities are unable to respond to changes in hospital activity
- General Condition
  - Current backlog maintenance costs associated with the front block of the hospital are estimated at approximately **£2.74m**
  - Much of the external and internal building fabric is in urgent need of repair and failure to address these issues will result in areas of the building becoming un-operational.
- Primary Care
  - In January 2017, the partners of Glantwymyn Health Centre were awarded the GMS contract to provide care to the patients of both Glantwymyn Health Centre and Machynlleth Medical Practice (a total list size of 7,000 patients), meaning that the Primary care needs of the Ddyfi Valley are now being delivered by one integrated team.

- The Glantwymyn Health Centre is currently facing issues of capacity with planning approval to extend the building to provide 1 additional Treatment room and 1 additional Consult Exam room alongside an additional 16 patient parking spaces. If these works were to be undertaken the revenue implication would equate to an additional **£5.5k** (excluding VAT) per annum in rental costs (Approximately **£100k** over a 15-year life span). However, following the merger of the practices it is expected that a proportion of existing patients will elect to see their GP in Machynlleth – potentially reducing demand at Glantwymyn but increasing it at Machynlleth.
- The Machynlleth Medical Practice (located on Forge Road) is currently leased at a cost of **£83k** per annum. The current lease is due for renewal in June 2018. Although purpose built, some of the facilities have become tired over time and would soon require investment for refurbishment and to make improvements in disabled access.

2.2.3.2 Business Needs

If PTHB does not respond to the challenges described above, the local health system faces one or more of the following risks (see section 3.3.4.1):

- The condition of the front block is likely to worsen potentially leading to service closures
- There will be no further potential to integrate services including Primary, Community and Social Care and Third Sector services
- There will be no opportunity to bring Primary Care services together into a single location
- Increased likelihood of adverse clinical incidents
- Increasing recruitment and staffing problems leading to workforce shortages
- Unfairness in access to services
- Failure to meet performance targets
- Healthcare services that are not in keeping with local and national strategic policy
- The best outcomes for patients will not be achieved.

To meet these challenges a fundamental shift of emphasis is necessary. Future health services must be responsive to likely changes in population needs and the demographic demands of the locality. The need to improve local facilities and community services so that residents of the Bro Ddyfi Valley can receive the best possible care and support is essential. This project presents a unique opportunity to develop a community hospital facility that will act as a community 'hub' for a network of services and a truly integrated, sustainable, co-located model of health and social care that has been designed to meet the specific needs of the local community.

2.2.3.3 Business Scope

Drawing on national and local strategic and operational priorities, and examining the current situation, the project board have agreed the following potential project scope:

- **£4,268,516** investment to address urgent essential works to building fabric & Infrastructure
- A further **£3,692,905** for the refurbishment/reconfiguration of the site to include the following:
    - Develop the ground floor plan to include GMS services currently delivered from Machynlleth Medical Practice, improving integration of services for patients and offering significant revenue savings for PTHB
    - Enhance these services to include, community, third sector and health promotion services by providing a number of bookable spaces and a hot-desk base for visiting organisations
    - Create multi-disciplinary accommodation to enable integrated working between primary, community, local authority and third sector care
    - Create a new Adult Mental Health centre with its own entrance and wait facilities, improving patient experience, safety and security for patients and staff
    - Develop the first floor to re-provide services currently delivered in inadequate accommodation and provide staff facilities including offices, staff rest and change and meeting facilities
    - Redevelop an element of the ward area to provide a dedicated Palliative Care suite for patients and their relatives
    - Improve access to the main entrance of the hospital
    - Improve access and wayfinding issues for patients and visitors associated with the Main Reception
    - Improve the location and condition of the existing Staff and Ward Kitchen
    - Enhance kitchen services to include a patient/visitor café providing a community hub and increasing revenue potential for the HB
    - Improve patient and staff environment and increase compliance to as much of the estate as possible
    - Dispose of some external buildings (no longer in use) in order to provide a 'therapy garden' at the heart of the site
    - Car parking enhancements.

2.2.3.3.1 Space Utilisation

The schedule of accommodation which has been developed in support of this option are based on HBN guidance, user group engagement and activity analysis (a utilisation paper is appended to this document detailing the assumptions which underpin the required space). In order to deliver these requirements the footprint needed to be

expanded through a number of extensions. A ground floor infill extension has been provided to relocate the main porters store to a more central location (formerly the mortuary building) and link it to the main building, this also allows for new centrally located staff change facilities. The first floor will be extended over the current single storey accommodation at the front of the site which would provide GMS staff facilities, staff accommodation and a relocated resource room. The first floor extension of **250m2** also provides the building with approximately **60m2** of additional accommodation which are to be utilised by a range of community and third sector service providers to further enhance the services available on site.

Activity analysis undertaken in regard of the preferred option signify an increase in visitor/patient numbers of 108 per day.

2.2.3.4 Investment Objectives

Drawing on national and local strategic and operational priorities, and examining the current situation, the project board agreed the following investment objectives:

1. To provide services in modern, fit-for-purpose accommodation which achieves statutory and regulatory compliance and ensure service continuity.
2. To move care closer to people's homes by increasing the range of local services and enhancing the provision of care in County where safe and appropriate to do so
3. To provide safe and sustainable services in response to the current and future health and well-being needs of the local population.
4. To improve the integration of community, primary care, social services and third sector services in Machynlleth, leading to better care experiences; improved care outcomes; and cost-effective services.
5. To improve economic, social, environmental and cultural well-being, as outlined in The Future Generations (Wales) Act 2015

2.2.3.5 Main Benefits Criteria

This section describes the main benefits associated with the implementation of the potential scope in relation to business needs against each of the investment objectives. These are detailed in section 3.3.7.

2.3 Economic case

2.3.1 The Long List

The long list of options were developed by the project team and verified by the project board and were categorised under the headings of Scope, Technical Solution, Service Delivery, Implementation and Funding. The advantages and disadvantages of each option were explored and each option was examined to establish if it fulfilled the investment objectives and critical success factors. The long listed options can be summarised as follows:

- Scoping Options
    - Status Quo – Maintain the current services - **Carried Forward**
    - Minimum Scope - Enhance the scope to include Machynlleth Medical Practice - **Possible**
    - Intermediate Scope – Further enhance the scope to include the inclusion of rooms which are currently part of a planned extension at the Glantwymyn Health Centre, enhancements for social, community and third sector and reconfiguration of public spaces to create a 'Community hub'. This option also includes for improvements in palliative care services - **Preferred**
    - Maximum Scope – As above including expanding the Maternity unit to include birthing and a mortuary - **Discounted**
- Technical Options

  Due to the significance of the hospital in terms of service delivery, any options associated with closing or relocating services off-site have been previously discounted. A number of other options including new build and complete upgrade of the site were also considered but where discounted (see section 4.3.3). The long list of options therefore focuses on what is achievable on the BDCH site.

    - Status Quo – **Carried Forward**
    - Core – Compliance only - **Possible**
    - Core + Desirable - develop internal reconfiguration to provide GMS accommodation - **Possible**
    - Core + Desirable + Optional - The reconfiguration would include a number of additional extensions to house the increase in scope - **Preferred**
- Service Delivery Options
    - In-house - **Preferred**
    - Outsource - **Discounted**
    - Strategic Partnership - **Discounted**
- Implementation Options
    - Single Phase - **Preferred**
    - Phased - **Discounted**
- Funding Options
    - Private Funding - **Discounted**
    - Public Funding - **Preferred**

2.3.2 The Short List

The following short list of options emerged:

	Option 1	Option 2	Option 3	Option 4

Scope	Status Quo	Status Quo	Minimum	Intermediate
Technical	Status Quo	Core	Core + Desirable	Core + Desirable + Optional
Service	In-house	In-house	In-house	In-house
Implementation	Single Phase	Single Phase	Single Phase	Single Phase
Funding	Public	Public	Public	Public

- Option 1 – Do Nothing – Maintain the Status Quo
- Option 2 – Do Minimum – Maintain the current services but deal with fundamental building fabric and infrastructure issues
- Option 3 – Intermediate – Enhance the scope to include Machynlleth Medical Practice, develop internal reconfiguration to provide GMS accommodation
- Option 4 – Do Maximum – Further enhance the scope to include the inclusion of rooms which are currently part of a planned extension at the Glantwymyn Health Centre. This option also includes enhancements for social, community and third sector and reconfiguration of public spaces to create a 'Community hub'. This option also includes for improvements in palliative care services. The reconfiguration would include a number of additional extensions to house the increase in scope.

2.3.3 Economic Appraisal

2.3.3.1 Non-financial Appraisal Summary

The benefits criteria were agreed, weighted and scored by the project team and verified by the Project Board. The results of which are summarised below:

Benefit Criteria	Weight	Score				Weighted Score			
		Option 1	Option 2	Option 3	Option 4	Option 1	Option 2	Option 3	Option 4
Clinical Quality & Safety	25	1	4	6	9	25	100	150	225
Environmental Quality	30	1	6	7	9	30	180	210	270
Accessibility	20	3	5	7	8	60	100	140	160
Integration/Efficiency	15	2	3	6	8	30	45	90	120
Deliverability	10	3	5	7	8	30	50	70	80
Total	**100**	**10**	**23**	**33**	**42**	**175**	**475**	**660**	**885**
Ranking		4	3	2	1	4	3	2	1

2.3.3.2 Financial Appraisal Summary

The key findings from the economic appraisals are summarised below:

Summary of NPV and AEC Appraisal				
	Option 1	**Option 2**	**Option 3**	**Option 4**
	(£m)	**(£m)**	**(£m)**	**(£m)**
NPV	-£2.105	-£4.031	-£5.059	-£5.943
AEC (Annual Equivalent Cost)	-£0.168	-£0.321	-£0.404	-£0.475
Ranking	**1**	**2**	**3**	**4**

Option 1 – Ranks highest in terms of financial implications, this is based on the assumption that revenue costs will remain unchanged and that maintenance issues will be dealt with as required. This option however, is not sustainable as a failure to invest in the front block of BDCH will inevitably lead to further maintenance issues and could result in the eventual closure of services.

Option 2 – Ranks second in terms of financial implications as it deals only with addressing the current building fabric and infrastructure issues. There are no revenue implications as there are no changes in service delivery. This would however not address the issues of spaces which are under-utilised and poorly laid out.

Option 3 – Ranks third in terms of financial implications as it requires a higher capital investment. However it does represent revenue savings associated with the transfer of services from Machynlleth Medical Practice.

Option 4 – Ranks lowest in terms of financial implications due to the level of capital investment required. It does however have the following revenue benefits:

- **£83k** per annum associate with the transfer of primary care services from Machynlleth Medical Practice
- Avoided costs of planned extension to Glantwymyn Health centre equating to **£5.5k** (excluding VAT) per annum in rental costs
- Reduction in backlog maintenance representing a saving of **£2.74m (66%)**
- Reduction in heating costs by **47.9%** representing an estimated annual cost saving of **£14,840**
- Extending the Catering department to offer patient/visitor refreshments and more choice/provision for staff with an estimated revenue increase of **£15-20k** per annum
- The provision of bookable rooms predominantly for use by community and third sector providers to further enhance the services available on site. These rooms represent a potential income of **£32.5k** and would

also offer valuable future expansion space which could enable the future relocation of Glantwymyn Health Centre and a subsequent further annual saving of **£39.5k.** It is important to note that the current scheme provides 60m2 of additional accommodation (5 No Rooms) and their inclusion has been based on engagement with external providers and a utilisation study carried out by PTHB project team.

PTHB are currently engaging with the following organisations to verify the inclusion of these rooms:

- **CAMAD-Pathways** run a drop in service for people experiencing mental health difficulties and also run a volunteer coordination service.
- **Gerddi Bro Ddyfi** is a community gardening group who run volunteer well-being sessions in the garden.
- **Mach Maethlon** are a community food group who run cooking classes and encourage community food growth in public spaces.
- **PAVO Community Connectors** are a community link service – sign posting people to appropriate local organisations.
- **Celf Able** are an inclusive art group running sessions in Machynlleth who would benefit from a venue.
- **MIND Aberystwyth** currently run a Health and Well-being service in Machynlleth- comprising of 1:1 support, community signposting, and group work. The organisation are now looking to develop the service to running psycho-educative groups in maternal mental health and are currently in the process of evidencing a need for this with the community midwifery team.
- **Kaleidoscope** drug and alcohol services
- **Ponthafren Association** promoting positive mental Health
- **Age UK**
- **Menter Berllan** community enterprise hub
- **League of Friends**

The rental opportunity for these rooms is estimated at **£32.5k** (based on 5 number rooms booked for 3 sessions per week at £42 per session) and would also provide valuable future expansion space. Integration of third sector organisations is a key consideration of any plans for the future of the BDCH. The Community Connectors are already working with health colleagues across Powys providing added value as part of the integrated team based in the hospital at Ystradgynlais. Having a dedicated space on the Machynlleth site could, therefore, provide significant benefits to the local population.

This is reinforced through the patient forum who have committed to actively promote the use of the hospital by the organisations that the individual members represent.

Since the submission of the OBC a communication sub group has been set up who have the responsibility for ensuring that there is an open, transparent two way communication system in place between a range of multi agency stakeholders and those directly involved in the BDCH Health and Well-being Project.

2.3.3.3 Risk Appraisal Summary

The key findings from the risk appraisals are summarised below:

Risk	Option 1			Option 2			Option 3			Option 4		
	Impact	Chance	Total	Impact	Chance	Total	Impact	Chance	Total	Impact	Chance	Total
Service Capacity/Demand	9	9	18	9	5	14	9	4	13	9	3	12
Model of Care	7	5	12	7	5	12	7	4	11	4	3	7
Workforce demands	8	5	13	8	5	13	6	6	12	6	3	9
Service continuity	8	8	16	8	6	14	8	5	13	8	5	13
Total	**32**	**27**	**59**	**32**	**21**	**53**	**30**	**19**	**49**	**27**	**14**	**41**
Ranking	**4**			**3**			**2**			**1**		

2.3.4 Overall findings: The Preferred Option

2.3.4.1 Summary of Overall Results

The table below summarises the key outcomes and rankings of the qualitative benefits, the monetised benefits and the risk appraisals of the shortlisted options:

Evaluation Results	Option 1	Option 2	Option 3	Option 4
Qualitative	4	3	2	1
Financial	1	2	3	4
Risk	4	3	2	1
Overall Ranking	**4**	**3**	**2**	**1**

Following an economic, benefits and risk appraisal of each option, it was concluded that **Option 4** was the preferred way forward: The total refurbishment of the front block of BDCH including all relevant infrastructure and building fabric issues in order to achieve compliance and the complete reconfiguration of the area including new build

extension to develop the site into a health and well-being centre integrating Diagnostic, Assessment and Treatment services.

2.4 Commercial case

2.4.1 Procurement Strategy

This project is being procured via the SCAPE Framework which enables public sector clients to procure their construction projects efficiently and economically by speeding up and reducing the complexity of the procurement process. The SCAPE National Minor Works Framework (The Framework) has been pre-procured through an OJEU tender process which enables Public Organisation schemes to begin immediately, without mini-competition, whether a new build, maintenance or refurbishment programme.

2.4.2 Required Services

The following appointments have been agreed:

Service	Appointment
Construction Contractor	Kier Group
Design Team Lead	Boyes Rees Architects
Architect	Boyes Rees Architects
Structural & Civil Engineering	Bingham Hall Partnership Ltd
Mechanical & Electrical Engineering	Holloway Partnership
Project Manager	Pick Everard
Cost Advisor	White Young Green

2.4.3 Service Streams and Required Outputs

The broad scope of this project is outlined in Section 3.3.5. In support of this OBC, a Design Annexe document has been produced which captures the scope and content of the potential deal and includes:

- the scope of the procurement
- the required service streams
- the specification of required outputs
- Design information including 'signed off' 1:200 plans, Schedule of accommodation and derogation schedule
- the requirements to be met, including: essential outputs, phases, performance measures, and quality attributes

2.4.4 Payment Mechanisms

NEC3 ECC Option A is a priced contract with activity schedule. It is a lump sum contract in which the total contract sum is broken down in the activity schedule into a number of smaller sums, which are termed the Prices. The total of the Prices in the activity schedule is the contract sum.

The Contractor is paid for work at the tendered prices and carries all risks other than those which are expressly stated in the contract to be the Employer's risks or which are the result of defined compensation events.

The activity schedule sets the contract sum by reference to activities that are to be completed rather than by reference to a bill of quantities. Accordingly, it is the Contractor who carries the risk of changes to quantities during the work.

The Contractor is paid at monthly intervals. The interim payment is termed The Price for Work Done to Date (PWDD). In Option A, the PWDD is defined as the total of the Prices for:

- each group of completed activities
- each completed activity which is not in a group

Due to payments being linked to completed activities, it is generally the case that the Final Account calculations on Option A contracts are concluded relatively soon following completion of the Works.

2.4.5 Agreed Risk Transfer

The general principle is that risk is passed to 'the party best able to manage them', subject to value for money. The table below highlights the agreed apportion of service risks in the design, build and operational phases:

	Risk Category	Risk Allocation		
		PTHB	Contractor	Shared
1	Design risk		✓	
2	Construction and development risk		✓	
3	Transition and implementation risk		✓	
4	Availability and performance risk		✓	
5	Operating risk	✓		
6	Variability of revenue risks	✓		
7	Termination risks	✓		
8	Technology and obsolescence risks		✓	
9	Control risks	✓		
10	Residual value risks	✓		

11	Financing risks	✓		
12	Legislative risks			✓
13	Other project risks			✓

2.5 Financial case

2.5.1 Financial expenditure

Summary of financial appraisals:

	Year 0 2016/17 £'000	Year 1 2017/18 £'000	Year 2 2018/19 £'000	Year 3 2019/20 £'000	Year 4 2021/22 £'000	Year 5+ 2022+ £'000	Total £'000
Preferred Option							
Capital Costs:	383	438	4,515	2,625			**7,961**
Revenue Costs:							
Recurrent				199	199	199	597
Non-Recurrent				1,990			1,990
Total	**0**	**0**	**0**	**2,189**	**199**	**199**	**2,587**
Funded by:							
WG Capital	383	438	4,515	2,625			**7,961**
WG Funding - Depreciation		0	0	199	199	199	**597**
WG Funding - Impairment		0	0	1,990	0	0	**1,990**
Total	**0**	**0**	**0**	**2,189**	**199**	**199**	**2,587**

2.5.2 Overall affordability and balance sheet treatment

With the approval of this business case it is expected that the capital costs will be funded through the all Wales Capital Programme. The additional non recurrent impairment charge of £1.990m and recurrent capital charges of £0.199m are assumed to be funded by Welsh Government.

The working assumptions in calculating the above costs are as follows;

- the estimated impairment as a result of the development due to a change in asset value on the bringing into use of the redevelopment will to be funded by WG on an actual basis;
- the estimated capital charges as a result of the development due to a change in asset value on the bringing into use of the redevelopment will to be funded by WG on an actual basis;
- The balance sheet has been correctly organised and properly accounts for current assets, current liabilities, long-term liabilities and capital;
- The balance sheet remains in a healthy state following the bringing into use of the asset;
- The cash flow of PTHB will remain sound;
- The necessary allowance has been made for risks.

2.6 Management Case

2.6.1 Project Management Arrangements

The project will be managed in accordance with PRINCE 2 methodology. The project delivery organisation structure is detailed in section 7.2.2. Pick Everard, the project manager for PTHB, is responsible for managing the contractor and the project programme and ensuring that the contractor regularly updates and issues the programme accurately maintaining and recording progress.

2.6.1.1 Project Structure

The key appointments under the PTHB Capital Procedures, are detailed below:

Board Member	Position
Hayley Thomas	Senior Responsible Owner, Director of Planning and Performance PTHB
Wayne Tannahill	Project Director, Assistant Director of Estates and Properties PTHB
Louise Morris	Project Manager, Senior Capital Programme Manager PTHB
Mike Petersen	External Project Manager Pick Everard
Tim Dodds	Operational Lead, Kier Services
Jayne Lawrence	Head of Primary Care PTHB
Andrew Powell	Assistant Director of Primary Care PTHB
Amanda Edwards	General Manager North Locality PTHB
Anthony Goodman	Business Manager North Locality PTHB
Greg Chambers	Locality Finance Performance Manager North Locality PTHB
Merill Withanage	Capital Finance PTHB
Dr Sarah Bradbury	General Practice Representative

2.6.2 Benefits Realisation and Risk Management

The strategy, framework and plan for dealing with the management and delivery of benefits has been captured in the benefits realisation plan. Benefits Realisation Plan states the benefits of the project, the category of each benefit (in economic terms) how they will be measured and quantified, and who is responsible for their realisation.

The benefits are as outlined in section 3.3.7 and have been identified using Green Book Guidance as follows:

Type	Description
Quantitative (or Quantifiable)	Measureable; for example, £s or numbers of transactions
Cash Releasing	These are financial benefits, for example, avoided spend, reduced cost
Non-Cash Releasing	These are economic benefits, for example, opportunity cost of staff time, etc
Qualitative (or Non-Quantifiable)	Non-measurable, for example, quality improvements such as patient well-being, improved morale, etc

This document focuses on the key benefits which the project is intended to deliver, rather than providing a comprehensive list of all benefits. This plan is a management tool which addresses the specific benefits as a result of the development. An action plan will be developed to deliver the benefits, the results of which will be validated by the Project Board.

As outlined in Welsh Government guidance, an evaluation will be undertaken to review and evaluate the success of the project against its original objectives and success criteria. The achievement of these benefits will form the basis of that review. A more in-depth post project evaluation will be carried out 4-6 months after the new facility has been commissioned, and will cover:

- the overall success factors of the project in terms of time and cost
- extent to which the design meets the users' needs
- if the benefits described in the Business Case have been delivered

2.6.3 Post Project Evaluation Arrangements

2.6.3.1 Commissioning and Completion

A commissioning/witnessing/inspection plan is to be agreed between the Contractor, Project Manager and Supervisor for formal acceptance of completed construction elements at key stages of each project. This is to include all necessary handover documentation such as:

- the health and safety file
- operation and maintenance manuals

- all certificates

2.6.3.2 Handover

A handover plan will be formulated and agreed between the Employer, Contractor, Supervisor and Project Manager. The plan will cover matters such as:

- demonstrations
- insurance
- security
- defects reporting procedure
- defects rectification programme
- O&M manuals

The Contract Programme for each phase will include dates for developing the commissioning and handover plan.

2.6.3.3 Post Project Review

The primary objective of the post-project review is to identify and feed-back best practice to all parties such that continuous improvement can be sustained.

A formal post-project review workshop will be held with all key stakeholders, consultants and contractors invited to attend and contribute. The output will be a Project Audit Report (PAR) which will compare the outcome of the works against the OBC. Key measurements will include performance in terms of:

- Health and Safety
- Sustainability/environmental performance
- Quality, Programme, Target Cost
- Stakeholder performance – collaborative working
- Employer/End User satisfaction
- Achievement of the critical success factors

The lessons learnt and the activities celebrated for success will be recorded and implemented into future projects to ensure continuous improvement is achieved on future projects.

2.7 Recommendation

This FBC seeks approval to invest **£7,961,421** with a construction period of 12 months from approval to completion.

The proposals outlined in this document demonstrate that the front block of BDCH is currently in a poor state of repair, which left unaddressed, could potentially lead to closure. The fundamental works required in addressing estate compliance and fabric issues have been calculated at **£4,268,516**.

However, this investment alone would simply maintain the current services being provided and would not allow the building to respond to any changes in service, demand or activity. It would therefore be likely that further investment would be required to achieve the benefits and strategic objectives set out in this case. It is therefore the recommendation of this case to invest a further **£3,692,905** for a clinical reconfiguration/refurbishment of the area in order to support the Health Board's plans to integrate primary care services onto the site and establish BDCH as a health and well-being facility for the local community. The facility will also provide a base for health, local authority and third sector teams, encouraging improved integration and efficiency.

Date:

Senior Responsible Owner:

Director of Finance:

Chief Executive:

3 The Strategic Case

The purpose of this section is to revisit and update how the scope of the BDCH project fits within the existing business strategies of PTHB and outlines a compelling case for change, in terms of existing and future operational needs. The strategic case is split into 3 sections:

Part A: Strategic Outline Case

This section examines the objectives and purpose for investment associated with the proposed project.

Part B: The Strategic Context

The Strategic Context contains an overview of PTHB. It confirms that there is a strategic fit between the proposed project and national/local policy and objectives and that the scheme supports the proposed vision for care delivery and changes in activity.

Part C: The Case for Change

The Case for Change describes the current challenges faced by PTHB and the need for new/improved facilities. This section highlights the problems with the status quo describing the existing services and facilities in Machynlleth, as well as detailing the investment objectives, benefits and risks associated with the preferred way forward.

The following business case sections have been refreshed however, predominantly the strategic case remains as set out in the OBC and the scope and underlying assumptions have not altered.

3.1 Part A: Strategic Outline Case

3.1.1 Background

The project provides PTHB with an opportunity to reshape the way that community health and well-being services are delivered. The service model has been developed to focus on:

- Integration of Primary Care services
- Integration of physical and mental well-being
    - A broader range of teams working together to provide a more holistic service
    - Accessibility and dementia friendly design
- A range of ambulatory/outpatient care, with an emphasis on care closer to home
- Improvements in Women and children's services
- Improvements and further integration of mental health services
- Integration of a range of partners across health, local authority, third sector and community
- A community hub to improve access to health, well-being, prevention, and health promotion services.

The works would improve the quality of the staff and patient environment and support the PTHB strategic plans for the delivery of local services. The capital cost is estimated at **£7,961,421** with a construction period of **12 months** from approval to completion.

In Estates terms, the project will be delivered predominantly by the refurbishment of the existing building along with a number of planned extensions to maximise available clinical space. It will form part of a programme of capital investment schemes being undertaken by PTHB in order to improve compliance and quality of environment across a number of sites. The purpose of this is to improve existing building stock and maximise the Health Board's assets in order to provide high quality healthcare facilities locally and ensure as many services as possible can be delivered in county.

In revenue terms, the service changes related to this scheme will see a reduction in costs predominantly associated with relocating Primary Care services from Machynlleth Medical Practice into the main hospital building representing an annual saving of **£83k pa**. Although not currently included, there may also be an opportunity in the future to transfer services from Glantwymyn Health Centre thus delivering all GP Primary Care services from a single location. This would represent a further potential annual saving of **£39.5k pa**.

Other potential revenue benefits include:

- Backlog maintenance reduction
- More energy efficient building – Energy savings
- Well-being – a fit for purpose environment and enhanced patient, visitor, and staff experience.

- The inclusion of spaces which can be booked or used out of hours to provide an enhanced range of services such as complimentary therapies, health and fitness activities, long term disease management health promotion services
- Cash releasing opportunities - including the development of a commercial Café for the local community

This FBC is seeking approval to carry out works dealing with 2 fundamental issues which are detailed below:

3.1.1.1 Compliance

In a compliance review undertaken in 2014 by Powys Teaching Health Board (PTHB) it was identified that the front block of BDCH had a medium to high risk of non-compliance. Current backlog maintenance costs for the front block are estimated at **£2,741,500** (**£4,268,516** inclusive of fees and VAT). The proposals set out in this case deal with **66%** of the hospitals overall backlog maintenance and all items which have been identified as **medium-high** or **high** risk of non-compliance. Details of the compliance elements of the proposal can be found in **Appendix A.** In addition a 6 facet survey of the site was undertaken in 2017 which further support the case to urgently address compliance issues **Appendix B**

The current building condition has also led to a significant proportion of available accommodation being unused or being poorly utilised, such as the unsatisfactory storage of medical records in potential clinical space. The catering department is poorly laid out, with a common thoroughfare through its demise and equipment stored in public lobbies. The remaining services in the block, including adult mental health services and children's services are being delivered from accommodation which fails to meet current standards and provides an unsuitable patient environment.

The front block of the Hospital is part of a conservation area and constitutes part of the original Old Union Workhouse. Due to a legacy issue of a lack of investment, this area of the Hospital's building fabric and services infrastructure has fallen into a non-compliant and unacceptable level of disrepair. This project would bring the front block of BDCH back to a compliant state, thus significantly reducing the current level of backlog maintenance.

This document details the current significant compliance and maintenance issues of the front block, which include:

- The roof condition is poor which has led to a number of leaks which urgently need to be addressed
- The building envelope is not watertight and requires repair
- Internal fixtures and finishes are damaged or not fit for purpose and require replacement
- Elements of the floor on the first floor has become structurally unsafe and require replacement
- There is an under-utilisation of space which could, if converted provide additional clinical accommodation
- A number of services being run from unacceptable accommodation
- Services and infrastructure which are outdated and prone to failure
- An existing extension which is in a poor state of repair and requires replacement

- A temporary building, currently housing patient services, which is beyond its functional life

Figure 1: Images of Current front block at BDCH

The 6 facet survey has also confirmed that much of this area is currently unoccupied/under-utilised because some of the block is unusable. A condition survey was also carried out by Boyes Rees Architects (BRA) as part of the scheme development highlighting the need for essential works to be carried out to ensure that the building remains operational. Photographs taken at the time of the survey highlighting the issues can be found in **Appendix C**.

The options explored during the development of the Business case were therefore focused on maximising the asset of existing PTHB building stock which can be used to explore a number of service model changes in order to enhance services, move care closer to home and improve integration and efficiency.

3.1.1.2 Model of Care

By refurbishing the front block of BDCH, PTHB have a unique opportunity to re-orientate the model of care currently delivered from the hospital and to develop the site into a health and well-being centre integrating Diagnostic, Assessment and Treatment services.

3.1.1.2.1 Primary care

In January 2017 the partners of Glantwymyn Health Centre were awarded the contract to manage Machynlleth Health Centre. From April 2017, the combined practice (Dyfi Valley Health) have been responsible for Primary healthcare services for the whole of the Dyfi Valley, representing a real opportunity for integrated working and a 'joined up' approach to primary care local service delivery. The vision for the future of primary care is to develop a centre of excellence for rural medicine. This would include developing/enhancing in the following areas:

- Assessment

  Provide a Primary Care based facility in which patients can be observed/assessed over a longer period of time (as necessary) prior to being admitted to hospital. This can impact greatly on efficiency and help to reduce unnecessary hospital admissions.

- Integration

  Further integration with Community and Secondary Care services will ensure a more holistic service for patients. Being able to visit multiple specialisms in one visit could streamline the patient pathway and increase efficiencies. Opportunities for integration include:

  Diagnostics
  Health Visitor
  District Nurses clinic
  Counselling services
  Therapies & Complimentary Therapies
  Specialist Nursing

- Wider Primary Care Services

  Co-location with Hospital services would allow primary care services to be widened to include optician and dental services as well as enhance our current pharmacy facility. Providing as many services in a single location would have a positive impact on patient experience and streamline the clinical pathway.

- Enhanced services

  Moving more secondary care services to primary care, and developing links between the community and the local hospitals could reduce the reliance on out of county District General Hospitals. Therefore, providing services as close to Machynlleth as possible would benefit patients and significantly reduce transport times.

  There is also a potential to develop a 'day service' for interventions like transfusions, IV antibiotics etc. Additionally (depending on nursing levels) the practice could become a centre for chemotherapy infusions. Through improved integration with secondary care staff services can be made more accessible to patients in rural areas by utilising telemedicine and video conferencing.

  Supporting complimentary and alternative therapies and health promoting services such as healthy eating demonstrations are also fundamental in improving the health of communities and further alleviating pressure on the healthcare system.

- Education

  An aspiration for the future is to allow for the training of medical students and GP registrars in order to promote a sustainable workforce. This is vital for rural General Practice and forms a key part of the

Primary Care business model. Central to this is the inclusion of a dedicated registrar room which is required to become a training practice.

- Patient Choice

  Due to the more central location of the Machynlleth Practice it is envisaged that the joining of the 2 practices will see a proportion of patients electing to see their GP at Machynlleth.

- Local need

  The 65+ age group population in Powys is projected to increase by 37% by 2033, higher than the national average. The 85+ population is estimated to increase by 12% by 2033. All leaning towards a generally older population in Powys. Added to this, there are challenges to accessing services, for example, 22.6% of patients in North Powys having a drive time of over 15 minutes to their registered main GP Practice. The challenge for Primary care is to be able to offer an enhanced range of services and further integration with community and hospital services on order to reduce GP/Hospital visits offering efficiencies in patient travel time.

The joining of the two practices offers a unique opportunity to advance the health and social care provision for the whole population of the Ddyfi Valley. The proposals outlined in this case to develop a Health and Well-being Centre, in Machynlleth would provide modern, up to date accommodation in which to provide and develop these services. In the future, this would also include commissioning additional services to bring medical care closer to home for patients, and to integrate health and social care, social prescribing, and complementary therapies.

The current lease for Machynlleth Medical Practice is due for renewal in June 2018 (with an extension proposed until June 2019). In order to continue to use the building for primary care delivery it would require investment to ensure facilities remain fit-for-purpose. By transferring services into the accommodation available in the front block of BDCH this cost would be avoided. In addition it would represent an annual rental saving of **£83k** and improve integration and efficiency by delivering Primary and Community services from a single site. There is also a possible opportunity to redevelop the medical practice site into extra care housing which would further support the redevelopment of BDCH into a health and well-being facility.

There is currently no plan to include Glantwymyn Health Centre into the scheme, however, this would represent a number of benefits and it remains a long term goal of the GP partners to provide as much primary care services as possible from a single location. In the future, if Glantwymyn Health Centre were to close, the reassignment of flexible spaces could provide the required capacity. This would represent a further potential annual saving of **£39.5k pa**.

Activity

Based on the planned enhancements above, current activity demands and the planned transfer of patients electing to be seen in Machynlleth the following required accommodation has been identified:

Room Type	Current Machynlleth practice (included)	Current Glantwymyn Practice (not included)	Additional space planned Glantwymyn (included)	Additional required space (included)	Total
Consult exam	8	4	1	0	**9**
Treatment	1	1	1	1	**3**
Dedicated phlebotomy room	0	0	0	1	**1**
Total	**9**	**5**	**2**	**2**	**13**

Table 1: Identified clinical room requirement for Primary Care

Along with the core clinical rooms, support accommodation is required as identified in 'Welsh Health Building Note 36: General Medical Practice Premises in Wales' including sufficient admin space to facilitate the management of both practices. The proposed accommodation for Primary Care is further supported by a Utilisation study which is detailed in **Appendix D**

3.1.1.2.2 Adult Mental Health Services

Machynlleth is an important centre in west Montgomeryshire which has historically been remote from the rest of the county and this has compounded the experiences of local people in terms of mental health service provision. In rural localities people are significantly affected by isolation (this is a huge issue that affects clinical outcomes) and thus much more vulnerable to issues like unemployment, family discord, alcohol and drug misuse. Future service development is required to avoid pathologising people's experiences and offer a much broader approach than the purely medical-psychiatric.

The creation of an adult mental health 'hub' would facilitate greater integration between Primary and Secondary Mental Health teams as well as much stronger links to voluntary sector organisations such as MIND (based in Aberystwyth), CAMAD and Pont Hafren (Newtown) and Kaleidoscope and thus offer a much more holistic approach for service users. There is also an aspiration to further integrate the visiting Consultant Psychiatrist, who is currently based within the outpatient clinic.

There is clear evidence that the design of environment has a direct effect on well-being. The correct colours, artwork, layout and surrounding landscape of a building can help to reduce confusion, isolation, and anxiety and improve clinical outcomes. The service therefore needs to be developed to provide fit-for-purpose accommodation in which service users feel valued and confident in the quality of care they are receiving. The facility also needs to

be an efficient and pleasant place to work, allowing staff to provide the best quality of care possible and have a positive effect on staff performance and retention.

Group activities are extremely important and any future development will enhance the range of group therapies including; Yoga groups, art therapy, garden therapy and community group sessions.

Discussions with AMH suggest there is also an opportunity to incorporate substance misuse. This is currently provided by Kaleidoscope who used to run an outreach service at Machynlleth but no longer do so due to a lack of appropriate space – the new facility would allow these services to be integrated into AMH. Currently service users are referred to Kaleidoscope or DDAS.

Activity

Based on the information above the following required accommodation has been identified:

- Dedicated Entrance including waiting area and reception
- Integrated team office with hot desking facilities
- 3 No interview rooms
- 1 No Multi-purpose group room

3.1.1.2.3 Women & Children's Services

Women and Children's services are already integrated at Machynlleth, however improvements/enhancements could be made in the following areas:

- Further integration between maternity, paediatric physiotherapy and Health visitors including an integrated team office
- A dedicated department for Women and Children's services including waiting area and family friendly environment
- To increase the numbers of assessment and treatment appointments for children based at Machynlleth reducing travel to Newtown & Bronglais
- Increase the number of family group services including antenatal education, breastfeeding, baby yoga, mother and child groups and weaning parties
- Enhance services to include Community Paediatrician clinic which is currently only available at Newtown

Activity

Based on the information above the following required accommodation has been identified:

- Office accommodation for Midwives, school nurses, immunisation coordinator & health visitors as well as hot desking facilities for paediatric therapists and CAHMS

- Dedicated women and children waiting facilities
- 1 No consult exam room (with access to WC facilities for specimens etc)
- 1 No shared group room
- Access to a suitable room for CAHMS and paediatric OT sessions

3.1.1.2.4 Outpatients

There are currently 9 Outpatient rooms facilitating the following range of clinics:

- Continence
- Memory Nurse
- Psychiatry
- Ophthalmology
- Abdominal Aortic Aneurism (AAA) Screening
- Podiatry
- Chest
- Oncology
- Orthopaedic
- Gynaecology
- Dietician
- General Surgical
- Clinical Musculoskeletal Assessment and Treatment Service (CMATS)
- Paediatric
- Urology
- Diabetic including bloods & Retinopathy
- Cardiology

District nurses currently utilise one of the available outpatient rooms on a daily basis providing a wound care clinic. In the future, it is envisaged that this clinic would be incorporated into primary care thus enabling more capacity to offer a wider range of outpatient services/clinics at BDCH.

There is also an aspiration to develop enhanced eye care services on site to include a visiting Optometrist.

Activity

Based on current activity information the current accommodation is adequate, however it is envisaged that adjacent Primary care accommodation would facilitate further integration and opportunities to further develop the number of clinics available.

For example, the ophthalmology room (which is underutilised) will be altered to create an integrated 'eye' room by combining two consult exam rooms. By providing this facility in outpatients the utilisation of this space will be improved. Assuming every four week period will involve 40 sessions, the current assessment for additional services run from this room is as follows:

- 8 sessions for Clive Williams as the optometrist who will transfer his practice to the hospital
- 2 sessions for the visiting consultant ophthalmologist from Bronglais Hospital.

- 2 sessions for diabetic eye screening (estimated)
- 2 sessions for artificial eye fitting (estimated)

This totals and additional 14 sessions per month

In Addition District Nurses and Podiatry are being integrated/relocated with Primary Care.

3.1.1.2.5 Community Services

The future of community services in North West Powys is the integration of health and social care. By working together Powys Teaching Health Board and Powys County Council will be jointly responsible for the health and care needs of patients. By community health services, primary care, social services and the third sector working better together, people will have shorter stays in hospital and fewer unnecessary admissions. It will also ensure that resources are used effectively and efficiently to deliver services that meet the needs of the growing population of people with longer term and often complex needs. Integration will mean a greater emphasis on enabling people to stay in their homes, where possible, sharing their lives with their family and friends, doing the things that give life meaning and value. Fundamental to achieving this is to be able to provide appropriate accommodation for multi-disciplinary working and a central base where teams can work together.

Activity

Based on the information above the following required accommodation has been identified:

- Integrated team office
- 1 No clinical room
- Access to bookable community therapy room & group room

3.1.1.2.6 Palliative Care

The vision for Palliative Care is for Machynlleth and the surrounding area to be a community in which people with life-limiting illnesses have timely access to skilled, compassionate and sensitive care. For patients and their families to maintain dignity and quality of life by providing exceptional care in a place of their choice. For those people for whom BDCH is their place of choice, the aim is to provide a calm and peaceful environment, where they and their family can receive the highest quality of care in comfortable surroundings that feel like home.

The plan for the palliative care suite is part of a network of palliative care facilities being developed throughout Powys including two recent developments at Llanidloes and Welshpool which have been funded by League of Friends in order to improve this important element of end of life care and care closer to home. This unit will also be the main bariatric service for the North.

Activity

Current ward activity has demonstrated that an area of the ward could be reconfigured in order to provide the following Palliative Care accommodation:

- 2 Patient bedrooms with ensuite and access to the garden for patients
- 1 relatives' bedroom and 1 relative's day room
- 1 assisted bathroom
- 1 doctors/resource room
- 1 staff room for 10
- Quiet room/interview room
- Store room
- Linen room
- Relatives WC and shower

3.1.1.2.7 Care Closer to Home

One of the key drivers for this scheme is the delivery of care closer to home, and the ability to treat patients within county wherever possible. The benefits of working with colleagues in BCUHB and HDUHB is recognised to better develop services for people in Mid Wales. This forms part of the ongoing work being undertaken by the Mid Wales Collaborative. A letter of support from HDUHB can be found in **Appendix E**

Senior staff from across all three Health Boards are exploring what could be delivered in an integrated way and what could be repatriated to the North East of Powys.

3.2 Part B: Strategic Context

3.2.1 Organisational Overview

PTHB was established on 1 April 2003 and is responsible for commissioning secondary health care and hospital services and co-ordinating the delivery of primary care services. It also directly delivers community care services such as district nursing, child health, midwifery, and community services in ten local community hospitals.

As PTHB is primarily a commissioning organisation, the largest proportion of its budget is devoted to commissioning NHS services in the community by primary care contractors and the Third Sector. Additionally, secondary care services are provided through commissioning arrangements with other Health Boards in Wales and NHS Trusts in England, as shown in the figure below:

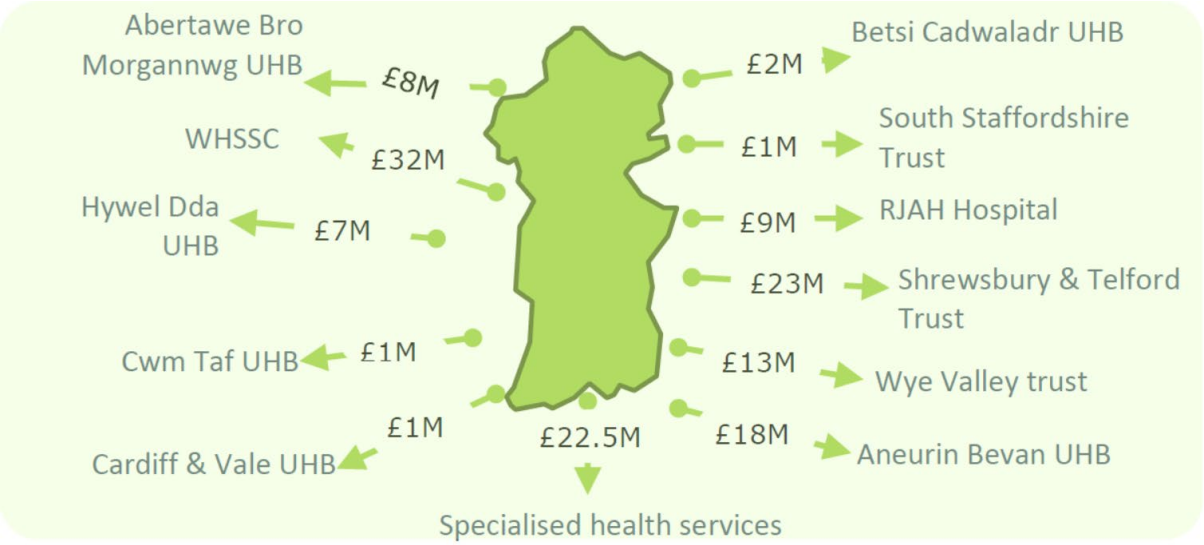


Figure 2: PTHB Secondary Care Commissioning

These multiple complex arrangements mean that, as an organisation, PTHB has a highly developed ability to provide coherence across multiple strategies, providers and pathways, simplifying arrangements is essential.

PTHB has three strategic challenges for the future:

- Designing and delivering a clinically and financially sustainable rural service model, providing as much care as close to home as possible through a continued shift from hospital to community based models of care
- Meeting the changing needs of Powys residents as demographic change and improvements in healthcare continue to make their impact felt on demand for, and cost of, services
- Working with partners and the public to support sustainable rural communities in a period of public sector austerity

A primary aim of this project is to integrate services, including Primary, Community and Social Care and third sector services thus maximising the range of services which can sustainably be delivered in county.

3.2.2 Demography and Health Needs

Powys covers 25% of the land-mass of Wales with only 5% of the population. Its population is estimated at 132,705 (mid-2013), making it one of the most sparsely populated counties in England and Wales, with just 26 persons per square kilometre in mid-2013 (Wales average: 149 persons per square kilometre). The area covered by Health Board is illustrated below:

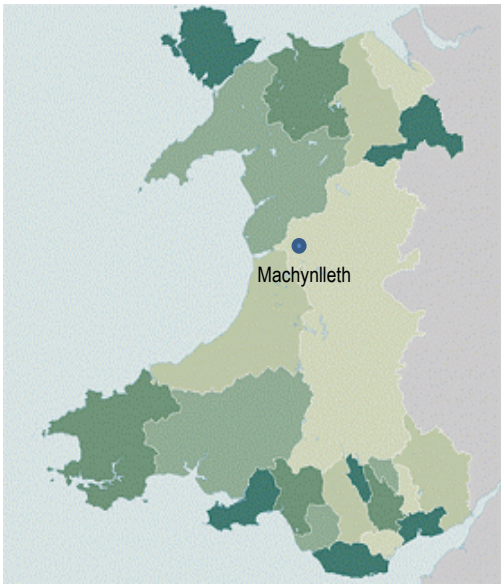


Figure 3: Map of Wales indicating location of Machynlleth

Powys is largely rural, which leads to many particular challenges, including those of isolation, transport demands and lack of critical mass. It is widely recognised that some of the major determinants of health such as physical and social isolation, access to transport services, poor housing and lower than average earnings, impact disproportionately on rural communities.

3.2.2.1 Population

Powys has the fastest growing proportion of older people in Wales. The proportion of people aged 75 and over in Powys increased from 9.7% in mid-2003 (Wales average: 8.3%) to 11.1% in mid-2013 (Wales average: 8.8%), due to the national increase in life expectancy and the net out-migration of the student age group from Powys.

The proportion of young working age people (20-39 years) is substantially lower than that of Wales and the proportion aged 50 and over is larger. This variation is greatest within the rural areas where there are relatively high numbers of elderly people. This is borne out by recent census data, showing that:

- 15.4% of the Powys residents in mid-2013 were children under 15 (Wales 16.8%)
- 59.9% were aged 15 to 64 (Wales 63.7%)
- 13.5% were aged 65 to 74 (Wales 10.7%)

- 11.1% were aged 75 and over (Wales 8.8%)

The demographic trends for Powys present a significant challenge to PTHB in delivering a sustainable health care system. There has already been a 20% increase in the number of people aged 65 and over since 2008 and a further increase of 60% is anticipated by 2033, resulting in almost 14% of people in Powys being over the age of 80. The health needs of older people will drive a growing demand for services; the increase in the proportion of older people living in Powys means that the number of people with long term conditions such as diabetes will increase. There will also be an increase in the number of people with dementia; it is estimated that whilst the number of people in Powys aged over 65 years with dementia was 2,225 in 2011, this is likely to rise to 4,256 in 2030.

The BDCH development presents an opportunity to provide future health services that are responsive to the demographic demands of the locality by providing local facilities and community services that enable residents to receive the best possible care and support.

3.2.2.2 Accessibility

A primary issue in health service need and delivery in Powys is access to appropriate services. The population is rural, spread thinly across a large area and consequently, where facilities and services require a critical mass of people to be economically or socially sustainable, they will out of necessity be spread out, making factors of accessibility and transport critically important. A key resulting factor of this is the absence of a District General Hospital and the consequent outflow of patients to hospitals and health services out-of-county for treatment.

The Department for Transport estimates that people in rural areas of England and Wales travel approximately 40% further than people in most urban areas and almost all of this extra distance travelled by rural residents is by car. The car-dependent nature of travel in many rural areas means that there is a rising risk of mobility-related exclusion particularly amongst the oldest and those with health needs and Community Hospitals are an integral part of healthcare provision in many rural areas.

Powys residents have to travel out of county for specialist services, complex care and Accident and Emergency to District General Hospitals that are run by other Health Boards/Trusts:

Acute Hospital	Distance from BDCH (miles)*	Journey Time*
Bronglais Hospital, Aberystwyth SY23 1ER	18	32 minutes
Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, SY10 7AG	51	1 hour, 14minutes
Royal Shrewsbury Hospital, Shrewsbury SY3 8XQ	55	1 hour, 21 minutes

Wrexham Maelor Hospital, Wrexham LL13 7TD	63	1 hour, 32 minutes
Princess Royal Hospital, Telford TF1 6TF	72	1 hour, 42 minutes
Nevill Hall Hospital, Abergavenny NP7 7EG	79	1 hour, 59 minutes
Hereford County Hospital, Hereford HR1 2ER	79	2 hours, 3 minutes
Prince Charles Hospital, Merthyr Tydfil, CF47 9DT	87	2 hours, 5 minutes
Morriston Hospital, Swansea SA6 6NL	87	2 hours, 17 minutes
Singleton Hospital, Swansea SA2 8QA	90	2 hours, 28 minutes
Royal Gwent Hospital, Newport NP20 2UB	99	2 hours, 34 minutes
University Hospital of Wales, Cardiff CF14 4XW	109	2 hours, 35 minutes

Table 2: District Hospitals serving Powys residents, including distance and journey time from BDCH

* using RAC Route Planner (http://www.rac.co.uk/route-planner/) starting from BDCH, postcode SY20 8AD

A key consideration for this project is to provide as much care as possible in Powys, avoiding out of county travel and providing a better experience for the individual. The current hospital model is proving increasingly challenging to sustain, and a key future goal is to redesign this clinical model and in the process strengthen the primary care sector to support a sustainable future for healthcare in the community. There is also provision of an increasing range of consultant-led outpatients, day theatre and diagnostics in Powys community facilities, bringing care out of the acute hospital setting.

3.2.3 Primary Care

Primary care services are facing increasingly unsustainable pressures and, as such, need to transform the way services are provided to reflect these growing challenges. These include:

- an ageing population, growing co-morbidities and increasing patient expectations, resulting in large increase in consultations, especially for older patients
- increasing pressure on NHS financial resources
- the need to address access to services
- the need to address inequalities in access of primary care
- workforce pressures including recruitment and retention

The Current Primary Care services available to local residents are detailed below:

Primary Care Service	Name	Address	List size
GP services	Machynlleth Medical Practice	Forge Rd, Machynlleth SY20 8EQ	4,000
	Glantwymyn Health Centre	Cemmaes Road, Machynlleth SY20 8LB	3,000

Dentists	PTHB - Machynlleth Medical Practice	Forge Rd, Machynlleth SY20 8EQ	7,000
	E G Davies Llys Einion Dental Practice	Heol Maengwyn, Machynlleth SY20 8DY	Recently Closed
Chemists	Rowland L & Co. (Retail) Ltd The Pharmacy	Pentrehedyn Street, Machynlleth SY20 8DN	7,000
Opticians	Clive Williams Opticians	Heol Pentrerhedyn, Machynlleth SY20 8DG	N/A
	Machynlleth Eye Care	Heol Maengwyn, Machynlleth SY20 8DY	N/A

Table 3: Local Primary Care Services in Machynlleth

The aim of this project is to alleviate the growing pressures on an already heavily burdened system by enabling general practice to play an even stronger role at the heart of more integrated community hospital services that deliver better health outcomes, a more holistic model of care, excellent patient experience and the most efficient possible use of resources.

3.2.4 Local Policy Drivers

3.2.4.1 Health and Care Strategy for Powys

PTHB in partnership with Powys County Council has developed and approved 'The Health and Care Strategy for Powys'. The strategy has been developed by working with citizens, staff, partners and stakeholders through a series of mini workshops and stakeholder events to consider the development of the Case for Change and to set the vision for future care.

The strategy builds on the early insights from the Powys Well-being Assessment which has been developed by the Powys Public Services Board in response to the Well-being and Future Generations Act 2014. The strategy is not a response to the act but the vision for Health and Care in Powys will form a key component of the Powys Well-being Plan, scheduled for completion in March 2018.

The strategy sets out the direction of travel for health and care in Powys to 2027 and beyond. It offers ideas built on the contributions of over 1000 people to what the future could look like. The vision for the future is 'a Healthy Caring Powys', as demonstrated in the figure below:

Figure 4: Powys First Emerging Vision

During 2017/18 the potential implications of the vision were considered and the supporting strategy developed in order to enable children and young people to **'Start Well'**, for people to **'Live Well'** and older people to **'Age Well'**. For each age group, PTHB have considered how to promote well-being, offer early help and support; tackle the big four diseases that limit life and provide joined up care.

3.2.4.2 The Powys Dementia Plan 2016-2019

In anticipation of the significant growing number of people with dementia that are predicted not only in Wales, the UK but worldwide, Powys Teaching Health Board have been working collaboratively with Powys County Council, Powys Association of Voluntary Organisations, the Alzheimer's Society and Dementia Friendly Communities, particularly Brecon and Hay, to strengthen the previously produced Dementia Plan, which was a sub-part of the Powys 'Hearts and Minds Together for Mental Health' Strategy.

Much of this activity is aligned to the Welsh Government vision to enable all people, including those with dementia, to live well for longer at home or in a homely setting.

The key outcomes for the Powys multi-agency dementia plan (2016 – 2019), which have emerged from the Ministerial priorities for dementia, are:

- more people with dementia living a good quality life at home for longer;
- dementia-friendly and dementia-supportive local communities, that contribute to greater awareness of dementia and reduce stigma;
- timely, accurate diagnosis of dementia;
- better post-diagnostic support for people with dementia and their families;
- better promotion of rights in all settings, together with improved compliance with the legal requirements in respect of treatment;
- people with dementia in hospitals or other institutional settings always being treated with dignity and respect;
- more people with dementia and their families and carers being involved as equal partners in care throughout the journey of the illness;

The above outcomes are encapsulated in 6 pledges for action within a three year timeframe. These are outlined below:

No	Pledge
1	To raise public awareness in relation to dementia, improving the lived experience
2	To reduce risk, ensure timely diagnosis and improve dementia diagnosis rate
3	To ensure appropriate post diagnostic interventions are in place
4	To ensure people with dementia are treated with dignity and respect by staff who are skilled and competent
5	To improve the care of people with dementia in general hospital settings
6	Support care homes in Powys to deliver person centred care for people with dementia

Table 4: Powys Dementia Plan Pledges

In addition, the HB are adopting, wherever possible, the principles developed by the Kings funds 'Developing supportive design for people with dementia' and subsequent work undertaken by the Association for Dementia Studies (ADS) and Worcester University which have been developed to create more supportive care environments for people with cognitive problems and dementia.

The design principles are presented as a wheel with five sections grouped around the desired outcomes of: easing decision-making; reducing agitation and distress; encouraging independence and social interaction; promoting

safety; and enabling activities of daily living. Listed under each of the section headings are a series of elements that are known to support, encourage and enable people with dementia in unfamiliar buildings.

Core members of the design team recently visited some wards which had been refurbished using these principles at Royal Blackburn Hospital and are integrating this good practice into the proposed refurbishment work in Machynlleth and across Powys.

Figure 5: Images of 'Dementia Friendly' Ward redesign at Royal Blackburn Hospital

3.2.4.3 Capital Developments

In response to the strategic objective to develop an estate that is fit-for-purpose and better meets service needs, PTHB has completed a Strategic Outline Programme to outline a five-year programme of capital investment to address the considerable concerns in respect of health and safety compliance in the Health Board's estate. During 2018/19, PTHB will develop a long-term estates strategy building on the Health and Care Strategy (Section 3.2.4.1 above) to ensure the best use of the current built environment and ensuring that opportunities to deliver modern fit-for-purpose facilities across the public-sector footprint is achieved for the citizens of Powys. The following capital developments are prioritised for action in 2017/18:

3.2.4.3.1 Llandrindod Wells Community Hospital

The redevelopment of LWH has been included as a priority scheme in PTHB's Strategic Outline Programme (SOP) in order to reconfigure departments to maximise capacity and deliver improvements in patient experience and throughput. It will also result in much improved patient accommodation, greater infection control and improve both health and safety requirements and statutory compliance, including compliance with the Equality Act 2010 and Standards for Healthcare.

A series of projects are already underway at LWH:

- *Business Justification Case 1: Roof and Front Elevation Works*

  The first BJC sought approval for £450,649 to undertake improvement works to the roof and front elevation of LWH which would enable the reconfiguration/refurbishment of existing departments to take place by ensuring the integrity of the building envelope. This roof and façade work was completed in 2017.

- *Business Justification Case 2: Development of New Birth Centre*

  The second BJC sought approval for £1,268,810 to undertake works to decant the administrative and community services from the Annexe of LWH; re-house the services into the newly acquired Waterloo Road building; extend and renovate the Annexe; and relocate and develop the Birth Centre to provide compliant accommodation and improve the quality of the staff and patient environment for a minimum period of 15 years.

  The Birth Centre has been completed and was opened by the Welsh Government Minister Vaughan Gething in November 2016 (pictured overleaf). This project will enable the works to be undertaken in the FBC, as it has facilitated the first phase of decant to be undertaken, in order that the next phases can commence. Additionally, the first floor of the vacated Annexe has been fitted out as a shell, with appropriate drainage and power points installed as part of the BJC2 works, which will form part of the Day Case/Endoscopy relocation.

Figure 6: Cabinet Minister Visit to New Birth Centre

- *Business Justification Case: Renal Dialysis Unit*

  A Business Justification Case for the extension of the Renal Dialysis Unit at LWH is currently being developed for submission in September 2017. The proposed extension will provide the opportunity to commission additional dialysis capacity in accordance with Welsh Renal Clinical Network guidance and National Service Framework guidance.

- *Phase 2 Works: Llandrindod Wells Reconfiguration project*

  The redevelopment of Llandrindod Wells Hospital (LWH) has been included as a priority scheme in PTHB's Strategic Outline Programme (SOP) in order to reconfigure departments to maximise capacity and deliver improvements in patient experience and throughput. It will also result in much improved patient accommodation, greater infection control and improve both health and safety requirements and statutory compliance, including compliance with the Equality Act 2010 and Standards for Healthcare.

  The scheme includes the following reconfiguration and refurbishment works to the ground and first floors of LWH:

  - Further refurbishment work to the decant building at Waterloo Road for the decant of further administrative functions and Medical Records
  - Extend and relocate current outpatient facilities into ground floor accommodation vacated by administration and Medical Records
  - Provide enhanced patient waiting areas
  - Provide relocated and improved accommodation for day case and endoscopy departments
  - Make further improvements to the newly configured Birth Centre
  - Provide relocated and improved Dental department
  - Minor improvement works to the X-Ray department (to be separately funded)
  - Provide public facilities including compliant sanitary facilities
  - Enhance the hospital Main Entrance and Reception
  - Refurbish staff areas including change facilities, FM and support functions

  The FBC was approved in October 2017 and works commenced on site in November. The scheme is due for completion in April 2019.

- *Phase 3 Works: Inpatient Accommodation*

  This work is projected to commence towards the end of phase 2 in order to upgrade and refurbish the remaining departments at LWH that are not encompassed within the previous phases. The business case will be progressed in 2018.

3.2.4.3.2 Ystradgynlais Community Hospital

Scheme development is underway to enhance mental health and inpatient service environment and provide a fit-for-purpose building infrastructure. The scheme will also facilitate the development of an urgent care environment in collaboration with local GPs, who currently provide the service from less than suitable accommodation in the GP practice.

3.2.5 National Policy Drivers

Nationally the scheme aligns with the key themes in "2015/16 NHS Wales Planning Framework" and the three organising principles of quality and safety, prudent healthcare and health inequalities (as articulated in PTHB's 2017/18-2019/20 Integrated Medium Term Plan). Specifically the Planning Framework emphasises both **shifts of services from hospital to primary and community care settings** and the need to **develop integrated services to improve care and support for people**. These are the two key drivers for this scheme. The scheme is also in line with policies that articulate the shift of care as close to home as possible and emphasises the need for access in more flexible ways delivered in more flexible facilities. The key national drivers for this scheme are outlined below:

3.2.5.1 Prosperity for All: the national strategy (Wales) 2017

The four key themes of this strategy are the same as those in *Taking Wales Forward*. Each theme consists of a vision, showing how they will contribute to prosperity for all, and how delivering in a more integrated and collaborative way can enhance the well-being of the people of Wales. The key themes and objectives are pictured below:

The strategy identifies five areas as having the greatest potential contribution to long-term prosperity and well-being, where fully integrated services and early intervention will have the greatest impact:

- Early Years
- Housing
- Social Care
- Mental Health
- Skills and Employability

The BDCH project is fully aligned with this strategy focusing on integrated services, health promotion, access to information and wellbeing services. In addition the project recognises the importance of training and development in order to create a skilled sustainable workforce.

3.2.5.2 The Well-being of Future Generations (Wales) Act 2015 (WFG Act)

The WFG Act requires all public bodies to change the way they work in order to improve well-being for the whole population, by acting in accordance with the sustainable development principle, and meeting the 7 Well-being Goals (see figure below):

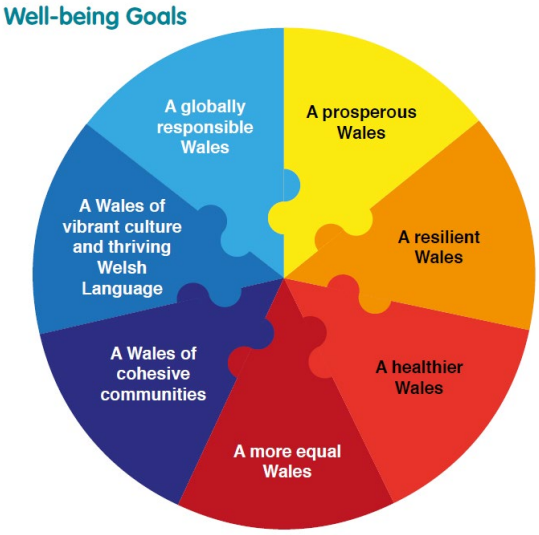


Figure 7: Well-Being Goals

By considering the 7-well-being goals, PTHB can better meet the needs of its current population without compromising the ability of future generations to meet their own needs. Sustainable developments connect the environment in which we live, the economy in which we work, the society which we enjoy and the cultures that we shared to the people that we serve and their quality of life.

3.2.5.3 The Social Services and Well-being (Wales) Act 2014 (SSWB Act)

The Social Services and Well-being (Wales) Act provides the legal framework for improving the well-being of people who need care and support, and carers who need support. Its aim is to maximise each individual's well-being by increasing their sense of control; strengthening their resilience and ability to access resources to cope when needed; and feeling included and being able to participate.

The SSWB Act changes the way people's needs are assessed and the way services are delivered; people will have more say in the care and support they receive. It also promotes a range of help available within the community to complement and reduce the need for formal care. The Act sets an expectation that:

- Services will be available to provide the right support at the right time
- More information and advice will be available
- Assessment will be simpler and proportionate to the needs of the individual (addressing "what matters")
- Carers will have an equal right to be assessed for support
- There will be stronger powers to keep people safe from abuse and neglect.

The implementation of both Acts represent a significant opportunity to create conditions which can improve the well-being of both current and future generations in Powys.

3.2.5.4 The Public Health (Wales) Bill November 2016

The Public Health (Wales) Bill was introduced into the National Assembly on 7th November 2016. Whilst health is improving, Wales still faces a number of specific and significant challenges. These range from challenges such as an ageing population, high levels of chronic disease and differences in the health of people in different areas.

The Bill brings together a range of practical actions for improving and protecting health. It focuses on shaping social conditions that are conducive to good health, and where avoidable health harms can be prevented. If passed, the Bill will, amongst other things, restrict smoking in school grounds, hospital grounds and public playgrounds, require local authorities to prepare a local strategy for toilet facilities for public use, require public bodies to carry out health impact assessments in specified circumstances and change the pharmaceutical list of Health Boards to a system based on the needs of local communities.

3.2.5.5 Our Plan for a Primary Care Service for Wales up to 2018 (2015)

In 2015, Welsh Government published "Our Plan for a Primary Care Service for Wales up to 2018." This highlighted the current and prospective challenges in the strategic environment in which the NHS in Wales operates. In particular:

- The challenges of the economic environment in which the NHS is operating
- The pressures of increased demand in Primary Care, as a result of the success of drug treatment in enabling the population to live longer. In addition, more people are being diagnosed with one or more long term conditions like diabetes and dementia and frail older people increasingly have more complex needs
- Rising public expectations
- A demographic picture of the GP workforce which indicates that significant numbers of GPs are coming close to retirement age at the same time as parts of Wales are experiencing difficulty in recruiting GPs

The plan identifies five priority areas for action:

1. Planning Care Locally
2. Improving access and quality
3. Equitable access
4. A skilled local workforce
5. Strong leadership

Underpinning this plan, the overall principles are defined as:

- Prevention, early intervention and improving health, not just treatment
- Co-ordinated Care where generalists work closely with specialists and the wider support in the community to prevent ill health, reduce dependency and effectively treat illness

- Active involvement of the public, patients and their carers in decisions about their care and well-being
- Planning services at a community level of 25,000-100,000 people which the King's Fund has determined as the optimum size for planning and provision of Primary Care
- Prudent Healthcare

3.2.5.6 Taking Wales Forward (2016-2017)

More recently the Welsh Government document, Taking Wales Forward (2016-2017) affirms the NHS needs to reflect the needs of the modern society, with closer links between health and social services, strengthened community provision and better organisation of general hospital and specialised services. The document emphasises that more care and services will move from hospitals into communities, supported by integrated and sustainable Health and Care Services capable of meeting current demand and future need. Services will deliver timely care and treatment to patients when they need it.

Key priorities for delivering improvements include:

- Improving our Healthcare Services
    - Continuing to improve access to GP surgeries, making it easier to get an appointment
    - Investing in community pharmacies to take pressure off our GP surgeries
    - Increase investment in facilities to reduce waiting times and exploit digital technologies to help speed up the diagnosis of illness
    - Invest in a new generation of integrated health and social services centres alongside the transformation of our hospital estate
- Healthcare Staff
    - Take action to attract and train more GPs, nurses and other health professionals across Wales
    - Ensure more nurses, in more settings, through an extended nurse staffing levels law
- Healthy and Active
    - Implement the Healthy Child Wales programme to ensure consistent delivery of universal health services up to age seven
    - Work with schools to promote children and young people's activity and awareness of the importance of healthy lifestyle choices
    - Continue to promote exercise and good nutrition, reduce excessive alcohol consumption and cut smoking rates in Wales to 16% by 2020

3.2.5.7 The Welsh Government's Tackling Poverty Plan

The Welsh Government's Tackling Poverty Plan, sets out actions to build resilient communities and to help prevent and reduce poverty in Wales. There are a number of key actions where primary and community services can play a direct role:

- Identifying and taking action to address inequities within the Health Board area, improving healthy life expectancy and closing gaps between social groups
- Investing effort to bring families into contact with primary care services and extending hours, strengthening the population focus through the work of clusters and localities
- Delivering the Designed to Smile service to target inequalities in oral health and linking with the oral health action plan
- Increasing uptake of immunisation
- Aiming to reduce accidents and injuries in the home and on our roads
- Reducing teenage pregnancy rates, often associated with poor health and social outcomes for mother and baby, and an increased likelihood of postnatal depression
- Providing early support at all ages, and strengthening of community services and improved links with specialist services through the mental health measure

These examples are amongst those areas where primary and community services can contribute to the anti-poverty agenda.

3.2.5.8 The Welsh Language Measure (Wales) 2011

The Welsh Language Measure (Wales) 2011 has strengthened the status of the Welsh language and the introduction of the Welsh language standards from 2017 will set out further requirements to provide services through the language of choice. The importance of this is well recognised, and access to Welsh language services when needed can improve the experience of individuals and also contribute to better outcomes.

3.2.5.9 Additional Welsh Guidance

Other significant national policy drivers which have influenced this proposal are listed below:

- Together for Health, Welsh Government, 2012, placing primary and community services at the heart of the health care delivery; emphasising the importance of prevention, early diagnosis and high quality services, with patient feedback as a key driver for continuous improvement
- Setting the Direction: Primary and Community Services Strategic Delivery Programme 2010, (Welsh Government)
- Designed to Add Value: A Third Dimension for One Wales: A strategic direction for the third sector in supporting Health and Social Care, 2008, (Welsh Government)

- Designed for Life, Welsh Assembly Government, 2005
- Beyond Boundaries: Citizen Centred Local Services for Wales; Welsh Assembly Government, 2005
- The Mid-Wales Study (2014)
- Clinical and service strategies of neighbouring Health Boards and NHS Trusts
- Annual self-assessment against the Standards for Health Services
- Improvements required as set out within the THB's Annual Quality Statement
- Setting the challenge of meeting efficiency and effectiveness targets benchmarked against other organisations, including the review of the organisation's finances by Deloitte, commissioned by the Health Board (2013)
- The Demand and Capacity Report commissioned by the Health Board and received in December 2014
- The Director of Public Health's Annual Report
- Working Differently, Working Together, the workforce and OD framework that supports Together for Health (2012)
- Commission on Public Service Governance and Delivery (2014) (Williams Commission)
- Devolution, Democracy and Delivery Welsh Government (2014)
- Primary Care Strategy (Welsh Government) (2014)
- Health and Care Standards (April 2015)

In addition to these drivers, there is also a desire to improve the quality of the environment at BDCH and to improve compliance with guidance including:

- Equality Act 2010
- Firecode
- Welsh Health Building Notes
- Welsh Health Technical Memoranda
- Infection Control: The Welsh Government, in its national strategy for "Improving Health in Wales", places control of infection within hospitals and the community as the corner stone for modernising the NHS.

The proposed future development on the site would also address the following Welsh government directives:

- The Welsh Government Strategy 'Together for Health' (2012) and its 19 supporting delivery plans
- The Welsh Government Prudent Healthcare principles (2012)
- The Welsh Government Outcomes Framework and Measures (2017)

3.2.6 Key aims and Strategic Objectives

Taking into account the local and national policy drivers, PTHB's purpose, vision and strategic goals set out the long term aims of the Board. The vision "**A Healthy, Caring Powys**" is supported by the following aims and strategic objectives:

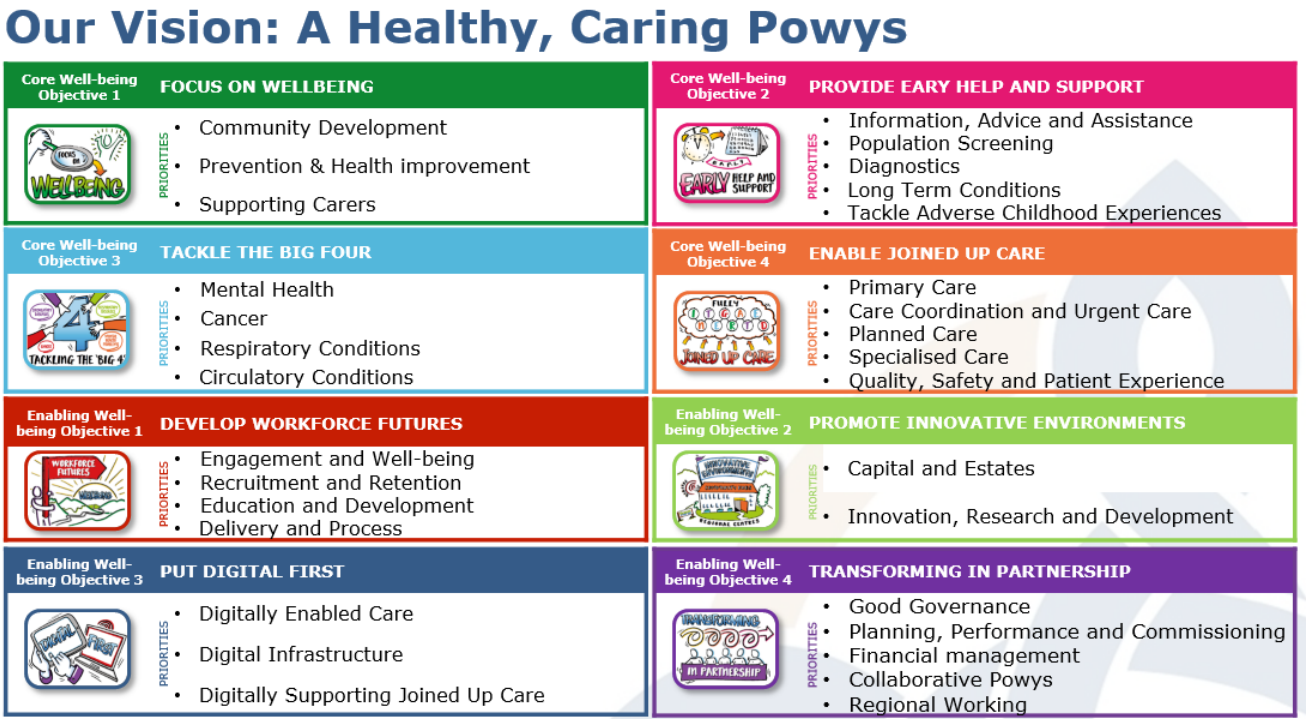


Table 5: PTHB Key Aims and Strategic Objectives

In line with Welsh Government direction, PTHB has five organisational principles underpinning the refreshed Integrated Medium Term Plan 2017/18-2019/20 (IMTP):

3.2.6.1 Prudent Health and Care

PTHB has identified 18 seminal projects which demonstrate and deliver the commitment to delivering prudent health and care in action, including:

- Outpatient and theatre modernisation project
- Nurse endoscopists in community hospital
- Maximising amount of eye care provided in primary care with Primary Care Plus Project
- Developing out of hospital referral pathways for frailty, chronic conditions and palliative care
- Carpal Tunnel Pathway providing early access to specialist opinion in the community

3.2.6.2 Quality, Safety and Patient Experience

PTHB wants quality, safety and patient experience to be at the hearing of everything to ensure standards of care are consistently high in all areas of practice, both in provided and commissioned services, including:

- Implement prevention and health improvement actions of the Powys IMTP
- Establish a social prescribing trial in primary and community care
- Integration team development
- Reduce avoidable falls both in home and care settings
- Improve in-house theatre service efficiency
- Improvements on pathways specific challenges/waits
- Embed “what matters” principle for patients in everything we do

3.2.6.3 Well-being of Future Generations

A joint well-being and population assessment has been completed and approved by Powys Public Service Board (PSB) members as part of requirements of Well-being of Future Generations Act (2015) and the Social Services and Well-being Act (2016). This is broader than health and social care and includes all partnership organisations such as police, education, fire service, environment and third sector.

3.2.6.4 Health Inequalities

PTHB’s targeted actions include:

- To agree and implement a health inequalities action plan which clearly describes PTHB’s actions to reduce inequalities
- To ensure “Making Every Contact Count” training places an emphasis on targeting staff groups working in the most disadvantaged part of Powys

3.2.6.5 Integration (including Social Services and Well-being Act)

PTHB and Powys County Council (PCC) are already coterminous organisations: serving the same population, largely experiencing the same challenges and opportunities of the sparsely populated, highly rural county. The organisations have a track record of working together to develop services for the people of Powys and have a history of working with communities and other stakeholders and partners to deliver improvements.

PCC and PTHB are key partners in the Regional Partnership and Public Service Boards. Integrated working is a key priority with a series of Section 33 arrangements bringing teams together to deliver integrated backroom and frontline services. At a senior management level, there is also a joint Director of Workforce and OD and interim arrangement in place whereby the Chief Executive of PTHB is acting as Strategic Director of People for PCC.

The impact of the key aims and strategic objectives is to shift the balance of integrated care to secure an increased emphasis and shift of activity towards prevention, self-care, and primary and community intervention, as illustrated in the diagram below:

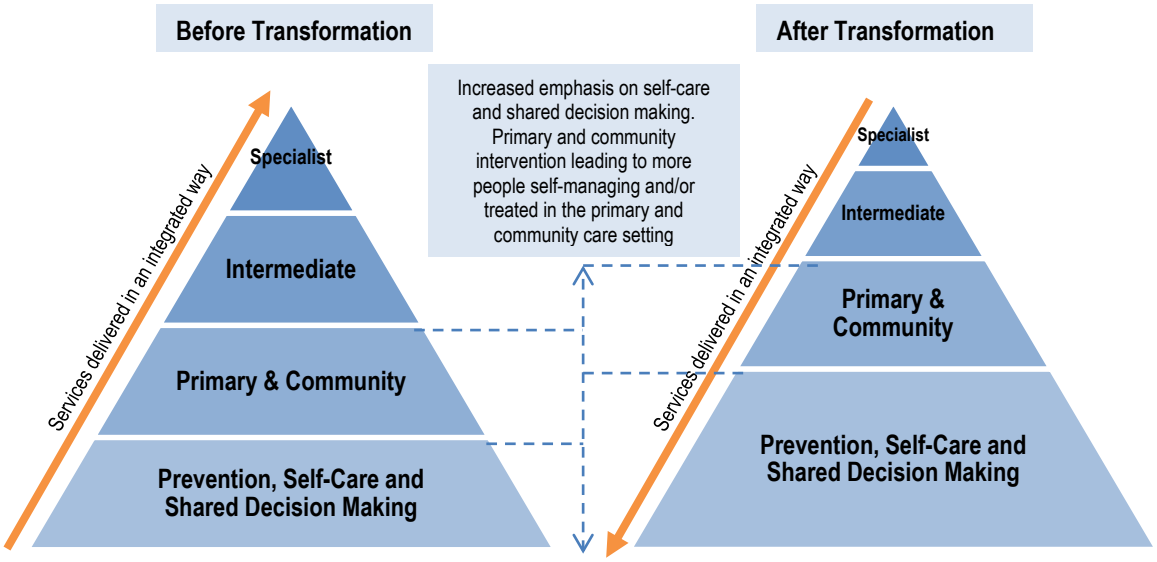


Figure 8: PTHB: Shifting the Balance of Care

3.2.7 Response to Policy and Strategic Drivers

The focus of PTHB's strategic direction is determined by a range of drivers which brings together national policy, local needs and the need to comply with statutory requirements for organisational delivery.

This investment includes the remodelling and refurbishment of the front block of the building to incorporate primary and community services onto the site allowing BDCH to become an integrated Diagnostic, Assessment and Treatment hub. This is line with the key areas of the PTHB Integrated Medium Term Plan (2016-2019) which aim to:

- Implement a long term Health and Care Strategy, which develops a long-term view of health and care for Powys to aid the access of capital funds to renew buildings and bring technological and infrastructure solutions in support of new service models
- Enhance Primary and Community Care, to provide high quality and efficient care in or close to home. Supporting GP teams, pharmacists, optometrists/opticians and dentists is key, as is developing a wide range of services in health and social care settings and our community hospitals
- Enable integrated working to find new and better ways to work jointly with people who use PTHB's services, with other health organisations in and outside of Wales who provide services to the people of Powys, and essentially with our key partner Powys County Council. Powys, with its often complex

arrangements and multiple borders, can demonstrate leadership and expertise on integrated working to others.

3.3 Part C: The Case for Change

3.3.1 Introduction

The Bro Ddyfi Community Hospital was originally built in 1860 as the Machynlleth Union Workhouse. After the abolition of the workhouse system, it became the King Edward VII Memorial Hospital and later the Machynlleth Chest Hospital before assuming its present role. The building therefore has particular historic significance for the local community.

Figure 9: Photograph of Machynlleth Union Workhouse

The improvement to the front block of BDCH has been identified as a priority scheme for PTHB due to significant deterioration of the building fabric which, if not addressed, could potentially lead to closure. Machynlleth has a high level of rural deprivation which would be further exacerbated by the closure of services delivered in BDCH. The nearest district general hospital is at Bronglais Hospital in Aberystwyth, 18 miles away (32 minutes); and a smaller community hospital is based at Welshpool, 37 miles away (56 minutes) . For specialist services, residents may be expected to travel as far as Swansea, Wrexham or Shrewsbury

The development therefore centres on the BDCH site and what role the hospital will take in the future. This section describes the service and environmental challenges facing the current delivery of services from this site.

3.3.2 Existing Arrangements

3.3.2.1 Site location

BDCH is located in Machynlleth on Heol Maegwyn (A489). The main entrance is located in close proximity to car parking which includes disabled spaces. There are regular bus services to and from Newtown, Welshpool, Aberystwyth and Dolgellau. There are also less frequent services to outlying communities and the town is also served by Machynlleth & District Community Transport Scheme who offer accessible transport to meet the needs of the community.

3.3.2.2 Bro Ddyfi Community Hospital

The rear of the hospital is single storey and briefly comprises:

- Reception and Patient Services
- Twymyn Ward
  - The ward comprises of 14 beds which support medical and rehabilitation patients. It is supported by General Practitioners from Glantwymyn Health Centre. The ward is also well supported by a multidisciplinary team which incorporates Physiotherapy, Occupational Therapy, Dietetics, Speech and Language Therapy, Parkinson's Specialist Nurse, Respiratory Nurse Speciality, Tissue Viability, Incontinence Nurse Specialist, Mental Health Team and Social Workers
- Occupational Health
- Physiotherapy
- Outpatients
  - The Outpatient department supports outreach clinics from Hywel Dda University Health Board; these include General Surgery, Gynaecology, General Medicine, Orthopaedics, Ophthalmology and Urology
  - The department also supports Specialist Nurse clinics which include Respiratory, Adult and Paediatric Dietetics, Parkinson's, Continence
- X-Ray Department
- There is no Accident and Emergency Department (A&E) or Minor Injuries Unit (MIU). The nearest A&E is at Bronglais Hospital, Aberystwyth and the nearest MIU is at the Victoria Memorial Hospital, Welshpool

The front block of the hospital currently comprises the following:

- Women's services
- Children's Services
- Adult Mental Health Services
- District Nurses
- Hospital Kitchens
- Medical Records storage

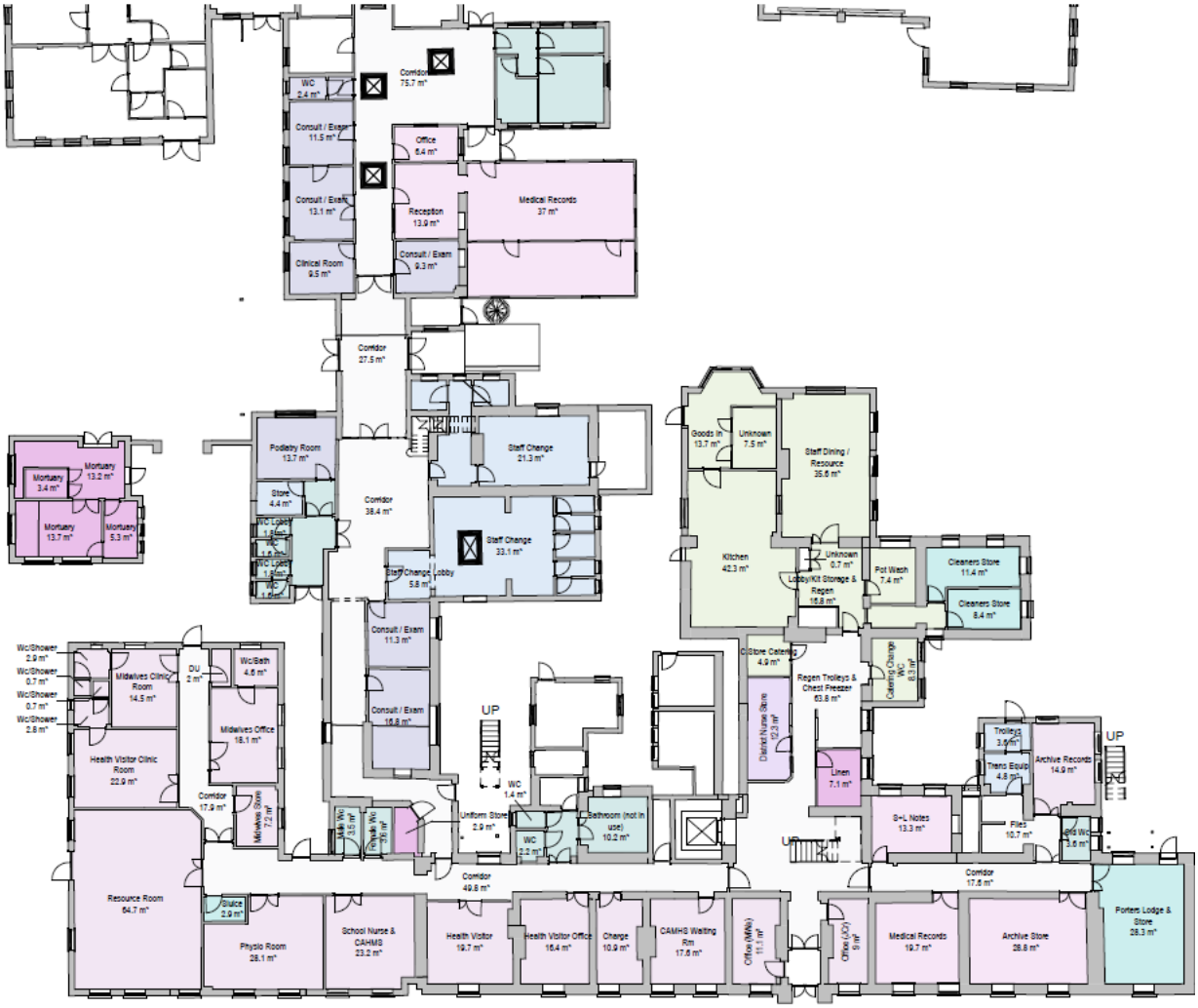


Figure 10: Existing Ground Floor Plan

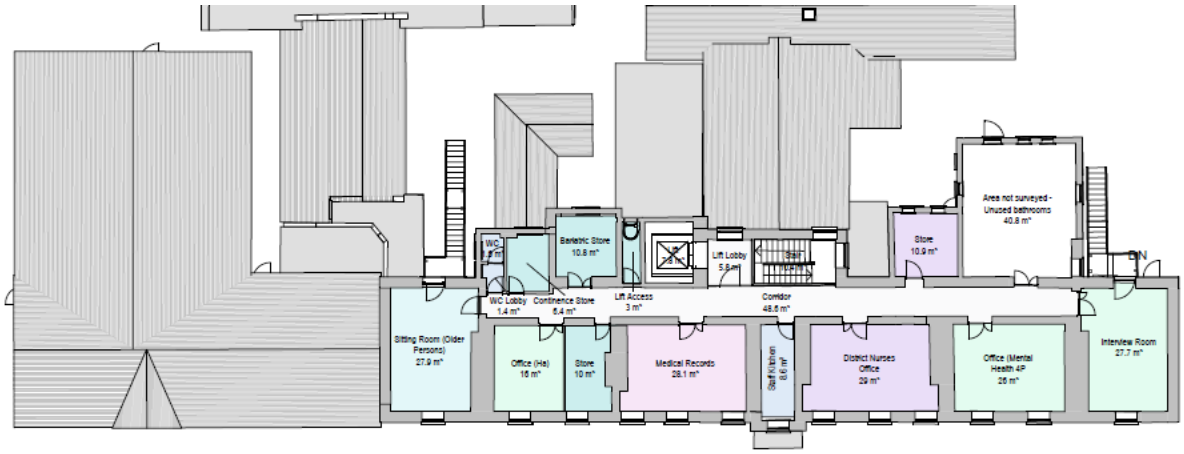


Figure 11: Existing First Floor Plan

3.3.2.2.1 Existing Occupants

The following services/staff are located in the front block of Machynlleth Hospital:

Accommodation	No of Rooms	No of Staff
Porters' Lodge	1 Room	1/2
Medical Records for the North Locality: (both live and archived)	6 Rooms	N/A
Medical Records: Speech and Language, Newtown Medical Practice	1 Room	N/A
Child and Adolescent Mental Health Services (CAMHS)	1 Group Room	N/A
Health Visitors	1 Group Room access to Resource Room	3
Immunisation Co-ordinator	1 Office	2
Catering/Porter Change	1 Changing Room	N/A
School Nurse/CAMHS Co-Ordinator	1 Office	2
Paediatric Physiotherapy	1 Small Gym	N/A
Resource Room	1 Large Meeting Room	N/A
Midwifery	1 Consulting Room 1 Group Room	3
Adult Mental Health	1 no Office 1 no Interview 1 no Meeting Room	4
Older People Mental Health	1 no Meeting Room	N/A
District Nurses	Office	4
Director of Planning and Performance	Office	2
Storage	Continence Consumables Bariatric Equipment	N/A
	TOTAL	**22**

Table 6: Existing Occupants

As a significant amount of the current building is either empty or providing storage accommodation, the potential decant impact could be minimised by relocating stored items such as archived medical records to a suitable off-site storage facility. A considered phasing and planning strategy of the works will need to be in place to minimise the impact on upwards of 22 staff and ensure the continuation of services such as adult mental health, antenatal and children's services as well as the Hospital kitchens.

3.3.3 The Status Quo

The following sections describe the issues faced by PTHB in maintaining the Status Quo at BDCH and for primary care services in the locality.

3.3.3.1 Reception and Patient Services

There is currently no main reception at BDCH. The patient services team book in patients and deal with general queries from a hatch adjoining their office. The system currently functions, however the predicted increase in hospital activity in addition to PTHB's aspiration to provide a community 'hub' at BDCH would require a dedicated reception. In line with HBN best practice reception points should be open, welcoming and easy to locate which is currently not the case.

3.3.3.2 Women's services

Women's services at BDCH fundamentally consist of midwife/antenatal services. These are currently delivered from an extension to the front block of the building constructed in 1995 as a birthing unit. As births no longer take place at BDCH the service now consists of antenatal check-ups and services. The current accommodation is modern but not fit-for-purpose and the spaces could be reconfigured more efficiently.

3.3.3.3 Children's Services

Children's services consist of CAMHS, physiotherapy, speech and language therapy and health visitor services. These are located on the ground floor of the front block. Services are accessed via the main reception followed by entrance through a security door to the front block. The environment is dark and damp and not child friendly. Clinical rooms do not have clinical hand wash basins. A group room used by health visitors for child development has been converted into a resource room and is no longer appropriate. A room in the antenatal department is used on a bookable basis, but is much smaller.

3.3.3.4 Adult Mental Health Services

The current location for adult mental health services is not appropriate. The accommodation is located on the first floor of the front block adjacent to the floor that has been condemned. There is a small interview room for their use, but if this is occupied, the service uses a very large "day room" which does not supply the requisite atmosphere and intimacy for counselling.

There is no formal reception and service users report to the main reception and are met by the counsellors and escorted to the department. They are also escorted to reception at the end of their appointment; this can cause issues in the late afternoon, as the main reception is locked down at 16:30 and the only available exit is through the Twymyn Ward. There is also the issue that some services users can feel uncomfortable and singled out by being escorted, as if they are a security risk.

3.3.3.5 Outpatients

The current Outpatient clinic rooms are not part of the current investment plans however the relocation of services such as District Nurses and Podiatry into Primary Care will have a positive impact on capacity and efficiency. The main area in need of improvement is the lack of a main reception point. In order to meet current HBN guidance a main reception should be easily identifiable, open and welcoming which is currently not the case. Additionally, there is no observation to patient waiting areas which is also desirable.

3.3.3.6 Medical Records Storage

A proportion of the ground floor accommodation is currently being used to house medical records (in unsatisfactory accommodation) which could be moved into a suitable off-site storage facility, supporting PTHB's strategy of moving non-clinical/non-essential services out of BDCH in order to create more clinical capacity. Relocating archived records to suitable off-site storage, would also significantly reduce the potential decant impact associated with any works being undertaken to the front block of BDCH. In addition, the storage of these notes provides governance and fire compliance issues as live and archived medical records are stored in rooms which are not fire compliant.

The plan for archived records is outside the scope of this project and will be completed as part of the decant plan.

Digitised Records are also being considered and this is subject to work outputs from the Information Governance Committee. Active medical records will be kept accessible at the hospital.

The live and archived notes stored at BDCH occupy **9** rooms totalling **132.01sqm** as follows:

Room No	Area (m^2)	Useage
MAC-01-00-004	20.84	North Locality Records Archive
MAC-01-00-005	29.16	North Locality Records Archive
MAC-01-00-007	3.62	North Locality Records Archive
MAC-01-00-008	15.24	North Locality Records Archive
MAC-01-00-009	3.60	North Locality Records Archive
MAC-01-00-010	4.84	North Locality Records Archive
MAC-01-00-011	10.76	North Locality Records Archive
MAC-01-00-013	13.69	Speech & Language Therapy Notes, Park Street, Newtown
Ground Floor TOTAL	***101.75***	
MAC-01-01-010	30.26	Mental Health Archive
First Floor TOTAL	***30.26***	
GRAND TOTAL	**132.01**	

Table 7: Location of Live and Archived Notes at BDCH

3.3.3.7 Catering and Kitchens

The current catering department provides approximately 20 inpatient meals as well as 12 staff meals daily. The current location is not ideal with a long and convoluted route to the wards, an issue which will be further compounded following any reconfiguration of the front block of the hospital. The current kitchen equipment is largely coming to the end of its life and the current layout is not efficient and contravenes aspects of fire regulations.

A future ambition for the catering department is to be able to offer a wider range of meals for staff and to extend this service to patients and visitors as there is currently no refreshment facilities available. This would not only improve patient/visitor experience but could also provide a valuable revenue stream for the hospital.

3.3.3.8 Facilities Management

In terms of facilities management there is a lack of compliant support accommodation including cleaners' cupboards, disposal holds and storage. Again, this issue will be compounded by the reconfiguration and increased activity in the front block of the hospital. The location of the current porters' lodge/workshop is also not ideal and would benefit from a central location with better provision for the delivery of goods.

3.3.3.9 General Condition

The original front block of BDCH has been identified as a priority scheme for PTHB, as its current condition is not fit for purpose for the following reasons:

- Building Fabric
  - The roof is in a bad state of repair and requires significant replacement/repair
  - The external building fabric is suffering from significant water ingress and requires repair
  - Some stone lintels and jambs require replacement
  - Water ingress causing damage and degradation to the internal fabric of the building has led to the need to replace/repair, including:
    - Ceilings
    - Wall coverings
    - Floor coverings
  - A proportion of the floor on the first floor has become structurally unsafe and requires replacement
  - Some flooring on the first floor is unsafe, with one room unable to be entered as it is unsafe to do so
  - There are buckets in the first floor corridor catching rainwater from the crumbling ceiling tiles and roof insulation is hanging down from the ceiling
- Fire Compliance
  - The external entrance of the kitchen has a fly screen made of metal chains, which restricts ventilation and is non-compliant

  - Regeneration trollies are parked in lobbies used as a common thoroughfare; the lobbies are not fire compliant
  - Live and Archived medical records are stored in rooms which are not fire compliant. Internal doors and doorsets do not meet current fire safety standards and require replacement
  - Two fire escapes on the first floor are accessed through other rooms
- Health and Safety
  - The kitchen is divided by a common thoroughfare; access to the staff dining room is through areas used by the catering department
  - The presence of asbestos which would need to be dealt with as part of any proposed works
  - A number of services currently being run from the building do not meet Health and Safety, Welsh Health Building Note (WHBN), Welsh Health Technical Memorandum (WHTM) standards. They have significant issues in terms of patient environment and flow and require extensive refurbishment
- Patient Perception
  - The dark and damp interior and outdated fixtures, fittings and furnishings do not promote the sense of high quality care
  - For some client groups such as mental health, the ambiance is not acceptable, as it comprises a long corridor which gives an institutional feel
- Infection Control
  - All corridors and rooms are carpeted
  - The hand-wash basins are not clinically appropriate and some clinical rooms do not have one at all
  - Some rooms and corridors have anaglypta-type wallpaper, much of which is peeling off
  - The podiatry room and midwife unit do not have an accessible dirty utility
  - Staff working in this block beyond 16:30 have to exit the building through the Twymyn Ward
- Governance
  - Live and archived medical records are not stored appropriately
- Infrastructure
  - A number of infrastructure issues need to be addressed including IT, heating and water, electrical and medical gas systems

The 6 facet survey undertaken in 2017 has also confirmed that much of this area is currently unoccupied/under-utilised because some of the block is unusable. A condition survey was also carried out by Boyes Rees Architects (BRA) as part of the scheme development highlighting the need for essential works to be carried out to ensure that the building remains operational. Photographs taken at the time of the survey highlighting the issues can be found in **Appendix C**.

3.3.3.10 Primary Care provision

During 2015/16, PTHB undertook a comprehensive review of the sustainability of GP Practices across Powys and identified three at high risk, one of which was located in Machynlleth, and several others that could move into that category depending upon the outcome of recruitment and the diversification of their workforce.

PTHB became responsible for the delivery of GMS services within Machynlleth and has, since August 2015, begun the job of re-designing the manner in which care is delivered to the population. A new multidisciplinary clinical team is in place, a positive Healthcare Inspectorate Wales (HIW) inspection has been undertaken and a very positive patient experience survey has been reported. This gives PTHB a baseline and operating model that could be deployed elsewhere. PTHB will continue to ensure high quality services are delivered in Machynlleth during 2016/17 and review the most effective manner in which this can be sustained for the long term.

Primary care services in Machynlleth are currently being delivered from 2 sites:

- Machynlleth Medical Practice – 4,000 patient list size
- Glantwymyn Health Centre – 3,000 patient list size

In January 2017, the partners of Glantwymyn Health Centre were awarded the GMS contract to provide care to the patients of both centres, meaning that the Primary care needs of the Dyfi Valley will now be delivered by one integrated team. The redevelopment of BDCH offers an ideal opportunity to provide fully integrated GMS services which will also provide efficiencies in patient pathways and provide a more holistic service through integrating clinical and social teams.

3.3.3.10.1 Machynlleth Medical Practice

Currently the Machynlleth Medical Practice premises are based close to the Hospital site at Forge Road. The purpose built practice occupies the whole building and consists of:

- 3 no GP
- 6 no Clinical Staff
- 15 no Admin/Dispenser Staff
- 1 no Pharmacist (agency)
- 1 no Advanced Nurse Practitioner (agency)

There are 7 clinical rooms, 1 treatment room and a dental room on the ground floor as well as a dispensary and reception area. Upstairs there are 6 offices and a file room being used by the administration staff. The building has become tired over the years and to bring it up to compliance for a Primary care centre, considerable investment would be needed. This would include suitable flooring, especially in all the clinical spaces as they are currently carpeted. There are male and female toilets, of which one is complaint for disabled access. The door openings to

the clinical rooms, however, are not wide enough for a wheel chair to easily pass through. The lighting is also in a poor state of repair and again needs investment to bring it up to compliance. The lease for the building at Forge Road is due to come to an end in June 2018 and the current rental cost for this building is **£83k** a year.

3.3.3.10.2 Glantwymyn Health Centre

The Glantwymyn Health centre premises is a purpose built building and comprises 4 clinical rooms and one treatment room. The practice list size has grown from 2,350 to 3,000 within the last 3 years which, in addition to offering an enhanced range of services has meant that an additional treatment room is now required. A minor injury and minor surgery service is available at the site. All clinical rooms are used 90% of the week and the treatment room is used 75% of the week. If there is an acute medical emergency or minor injury that requires attention, there is not a separate room to manage the patient for a longer period of time in order to do practical procedures or stabilisation, whilst waiting to send them home, or into hospital. This can impact greatly on the efficient running of the rest of the surgery. These scenarios are not uncommon in Glantwymyn Health Centre. They occur on at least a weekly basis. In an emergency situation there is a facility for an air ambulance to land at the site.

Glantwymyn previously accommodated other members of the health care team including practice counsellors and health visitor baby clinics, but in the last 18 months this has stopped due to a lack of room availability. There is currently a planned extension for the site which would provide 2 additional clinical rooms.

The parking at the Forge Road site is inadequate for the current list size of just under 4,000. There are currently 12 spaces and 2 disabled spaces, a planning application has been granted to provide a further 16 spaces.

If these works were to be undertaken the revenue implication would equate to an additional **£5.5k** (excluding VAT) per annum in rental costs (Approximately **£100k** over a 15-year life span).

In the future, including Glantwymyn Health Centre into the scheme would represent a number of benefits and it remains a long term goal of the GP partners to provide as much primary care services as possible from a single location. If this were the case, the reassignment of flexible spaces could provide the required capacity. This would represent a further potential annual saving of **£39.5k pa**.

3.3.4 Business Needs

Not only is the front block non-compliant regarding building fabric and condition, it can also be seen that there are issues for the current services in terms of non-functional, inappropriate accommodation.

If PTHB does not respond to the challenges described above, the local health system faces one or more of the following risks:

- The condition of the front block is likely to worsen potentially leading to service closures

- There will be no further potential to integrate services including Primary, community and third sector services
- There will be no opportunity to bring primary care services together into a single location
- Increased likelihood of adverse clinical incidents
- Increasing recruitment and staffing problems leading to workforce shortages
- Unfairness in access to services
- Failure to meet performance targets
- Healthcare services that are not in keeping with local and national strategic policy
- The best outcomes for patients will not be achieved

In addition the front block of BDCH has the following challenges:

- health and safety/statutory compliance risks
- poor quality of environment
- lack of capacity for expansion
- inefficient room relationships and patient flow problems
- poor quality of accommodation for staff and patients

3.3.4.1 Risks and impact of maintaining the Status Quo

Health & Safety risks

There are considerable risks associated with not addressing the maintenance issues. For example the condition of the existing structure is poor; an example of which is the first floor where the timber joists are showing signs of failure. Failure to rectify these issues could potentially result in collapse of the floor and the subsequent injury of staff and/or patients. This would have legal, moral and financial consequences through failing to manage health and safety, as follows:

Legal Risks

- Breach of the Health & Safety at Work Act 1974: Section 2 – General Duties of Employers to Employees which states that every employer has ensure, so far as is reasonably practicable, the health, safety and welfare at work of all their employees
- Breach of the Health & Safety at Work Act 1974: Section 4 – Duty of Person in Control of Premises for Health & Safety of non-employees which states that there is a duty to take all measures to ensure that occupants are safe and without risks.

Financial Risks:

The costs that would be incurred as a result of being injured, which includes:

- Criminal Prosecution

- Civil claims
- Cost of accident investigation
- Cost of loss of services

Clinical Risks

Failure to provide fundamental services to the local community. There are currently two services in particular that have a significant risk of future closure to building condition. This includes Adult Mental Health (due to potential worsening of unsafe floor and roof leaks) and Women and Children's services (due to structural issues discovered in the current extension). For Adult Mental Health this would mean service users being seen at home which contravenes mental health recovery strategies which encourage socialisation or the transfer of services to Newtown which would negatively impact the access of services, as it is an additional 45 minutes drive for patients.

3.3.4.2 Summary

To meet these challenges a fundamental shift of emphasis is necessary. Future health services must be responsive to likely changes in population needs and the demographic demands of the locality. The need to improve local facilities and community services so that residents of the Bro Ddyfi Valley can receive the best possible care and support is essential. This project presents a unique opportunity to develop a community hospital facility that will act as a locality hub for a network of services and a truly integrated, sustainable, co-located model of health and social care that has been designed to meet the specific needs of the local community.

3.3.5 Business Scope

Drawing on national and local strategic and operational priorities, and examining the current situation, the project board have agreed the following potential project scope

3.3.5.1 Compliance and Fabric issues

Works are urgently required to the front block to deal with the following compliance and fabric issues:

- Roof and external wall finishes inclusive of window and doors
- Internal Finishes inclusive of floors, walls, ceilings and door-sets
- Fire Compliance
- Electrical Infrastructure
- Hot & Cold Water Infrastructure
- Heating Infrastructure
- Ventilation Infrastructure
- Medical Gases infrastructure
- Asbestos Issues

3.3.5.2 Integrated Diagnostic, Assessment and Treatment services

The refurbishment/reconfiguration of the site would also include the following:

- Improve access to the main entrance of the site
- Improve access and wayfinding issues for patients and visitors associated with the Main Reception
- Improve the location and condition of the existing Staff and Ward Kitchen
- Enhance kitchen services to include a patient/visitor Café providing a community hub and increasing revenue potential for the Health Board
- Create a new Adult Mental Health centre with its own entrance and wait facilities, improving patient experience and safety and security for patients and staff
- Develop the ground floor plan to include GMS services currently delivered from Machynlleth Medical practice, improving integration of services for patients and offering revenue savings for PTHB
- Enhance these services to include, community, third sector and health promotion services
- Develop the first floor to re-provide services currently delivered in inadequate accommodation and provide staff facilities including offices, staff rest and change and meeting facilities
- Dispose of some external buildings (no longer in use) in order to provide a 'therapy garden' at the heart of the site
- Create multi-disciplinary accommodation to enable integrated working between primary, community, local authority and third sector care
- Car parking enhancements
- Improve patient and staff environment and increase compliance to as much of the estate as possible

Full details of the proposed design and scope can be found in the attached Design Annexe (**Appendix F**).

3.3.6 Investment Objectives

Drawing on national and local strategic and operational priorities, and examining the current situation, the project board agreed the following investment objectives:

1. To provide services in modern, fit-for-purpose accommodation which achieves statutory and regulatory compliance and ensure service continuity.
2. To move care closer to people's homes by increasing the range of local services and enhancing the provision of Care in County where safe and appropriate to do so
3. To provide safe and sustainable services in response to the current and future health and well-being needs of the local population.
4. To improve the integration of community, primary care, social services and third sector services in Machynlleth, leading to better care experiences; improved care outcomes; and cost-effective services.

5. To improve economic, social, environmental and cultural well-being, as outlined in the Well-being of Future Generations (Wales) Act 2015

3.3.7 Main Benefits Criteria

This section describes the main outcomes and benefits associated with the implementation of the potential scope in relation to business needs. The four categories of benefit are as follows:

- CRB: Cash Releasing Benefits
- Non-CRB: Non-Cash Releasing Benefits
- QB: Quantifiable Benefits
- Non-QB: Non-Quantifiable or Qualitative Benefits

The following table summarises the benefits arising from each of the investment objectives identified above:

Investment Objective	Stakeholder group	Benefit	Category
1. To provide services in modern, fit-for-purpose accommodation which achieves statutory and regulatory compliance.	Patients	Patients will benefit from the improved physical environment in terms of: Functional suitability; Fire safety compliance; Accessibility; Ease of use; Reduced risk of infections.	Quantifiable (QB)
	Health Board Staff: Clinical & Non-Clinical	The building will meet key HTM and HBN requirements.	Quantifiable (QB)
		Recruitment, retention and well-being of staff enhanced	Quantifiable (QB)
		Reduction in backlog maintenance costs of **£3.5m** (Approximately 66%)	Quantifiable (QB)
	Health Community/Others	National Estate KPIs achieved	Quantifiable (QB)

Table 8: Benefits Criteria based on Investment Objective 1

Investment Objective	Stakeholder group	Benefit	Category
2. To move care closer to people's homes by increasing the range of local services and enhancing the provision of Care in County where safe and appropriate to do so	Patients	Patients will benefit from improved access to healthcare	Qualitative Benefit (Non-QB)
	Health Board Staff: Clinical & Non-Clinical	It meets national and local policy objectives to develop the capacity of primary care.	Quantifiable (QB)
	Health Community/Others		Qualitative Benefit (Non-QB)

Table 9: Benefits Criteria based on Investment Objective 2

Investment Objective	Stakeholder group	Benefit	Category
3. To provide safe and sustainable services in response to the current and future health and well-being needs of the local population.	Patients	An increase in self-management in the local population enabled, through education, information and preventative services offered in partnership with social services and the third sector	Qualitative Benefit (Non-QB)
		Ensures service continuity – without investment services may no longer be offered in county	Quantifiable (QB)
	Health Board Staff: Clinical & Non-Clinical	Meets national and local policy objectives to develop services which focus on community well-being	Quantifiable (QB)
		Maximise the quality and range of services available on site by relocating medical records off site	Quantifiable (QB)
	Health Community/Others	Supports the delivery of The Well-being of Future Generations (Wales) Act, 2015	Quantifiable (QB)

Table 10: Benefits Criteria based on Investment Objective 3

Investment Objective	Stakeholder group	Benefit	Category
4. To improve the integration of community, primary care, social services and third sector services in Macynlleth, leading to better care experiences; improved care outcomes; and cost-effective services.	Patients	best outcomes for patients – quality of care is enhanced, in terms of the model of care and seamless pathways of care	Qualitative Benefit (Non-QB)
	Health Board Staff: Clinical & Non-Clinical	Efficient use of resources enabled through co-location and collaborative working	Qualitative Benefit (Non-QB)
		A saving in rental costs for Machynlleth Medical practice of **£89k** per annum	
	Health Community/Others	Prudent healthcare and the early intervention/prevention agenda in social care supported.	Qualitative Benefit (Non-QB)

Table 11: Benefits Criteria based on Investment Objective 4

Investment Objective	Stakeholder group	Benefit	Category
5. To improve economic, social, environmental and cultural well-being, as outlined in The Future Generations Act	Patients	Develop a model of care which focuses on prevention and health promotion and to help and support early intervention	
	Health Board Staff: Clinical & Non-Clinical	Deliver a recurrent balance of savings available for reinvestment in community services.	Cash Releasing Benefit (CRB) Non Cash Releasing Benefit (Non-CRB)
	Health Community/Others		

Table 12: Benefits Criteria based on Investment Objective 5

3.3.8 Main Risks

The main business and service risks associated with the potential scope for this project are shown below, together with their counter measures.

Main Risk	Counter Measure
Design Development:	
Supply chain members	Design team engaged early through the SCAPE framework – selected SCP have a proven track record in the delivery of healthcare projects
Specification	Full engagement with Shared services, users, infection prevention, FM, Estates ensure the correct specification is established which is verified through the Project board. Robust protocol in place for site inspections to verify agreed specifications are adhered to
Timescale	Regular DTM's and programme reviews verify project progress against key milestones
Change Management and Project Management	Potential changes are minimised through a robust engagement process. Necessary changes are managed through the change management agreements set out in the contractual arrangements
Implementation Risks:	
Supplier	Choosing the right suppliers based on a robust two tier tender process
Timescale	Monitoring site progress against the programme at regular project team and project board meetings
Specification	Robust protocol in place for site inspections to verify agreed specifications are adhered to
Cost Risks	Early Warning Notice (EWN) process established and risk register continually updated through risk workshop process
Change Management and Project Management	Contractual arrangements set out clear processes and protocols are established for changes through the implementation phase
Training and User	Full user engagement including relevant training needs to be established and 'soft landings' in place ensure relevant training is given
Operational Risks:	
Work force demands/recruitment	Identify the correct personnel required to deliver the proposed services. Scheme design which focuses on the recruitment, retention and training in order to develop a sustainable workforce

Main Risk	Counter Measure
Accessibility	As part of the enhancements in services being delivered locally a green travel plan is being developed as well as identifying opportunities locally for additional parking required to respond to increased activity
Changes in service delivery	Ensure user groups are engaged in any planned changes and the correct level of training is available

Table 13: Main risks and countermeasures

The risk register is attached at **Appendix G**

3.3.9 Constraints and Dependencies

The proposed BDCH scheme has the following constraints and dependencies:

3.3.9.1 Constraints

- The front block of BDCH forms part of a conservation area & the building is of significant historic significance to the local community and will need to be refurbished to an appropriate standard as part of any development on the site
- The available site area is limited with little or no room for expansion, meaning any proposed build solution is constrained by existing site boundaries
- As a predominantly refurbishment scheme the proposed solution is constrained by the existing building footprint
- Refurbishment is taking place on a live hospital site
- The services running from the front block of BDCH will require decant accommodation during the refurbishment. The phasing of the project has been carefully considered and as such the team have identified an opportunity to reduce the construction programme from 18 months to 12 months. In addition the current ward and Machynlleth Medical Practice has been identified as having the capacity provide decant space for services currently operating in the front of the hospital thus simplifying any required phasing strategy. The ward area will then be refurbished into a Palliative care suite as the final phase of the redevelopment. Through planning the project in this way, necessary decant space can be made available without the need for temporary building solutions. A decant sub group has also been set up to ensure that all services requirements are met during the construction phase.
- Planning – the site has a number of mature trees a number of which will be subject to tree preservation orders

- Ecology – Ecology surveys have been undertaken with issues likely such as the presence of bats

3.3.9.2 Dependencies

- Moves must be carried out with the minimum possible disruption to current services
- Successful phasing of services - Phasing proposals are attached at **Appendix H**
- Parking must be increased sufficiently in order to deal with the predicted rise in activity on the site
- Satisfactory agreement with Primary care to move services from Machynlleth Medical Practice into the new facility

4 The Economic Case

4.1 Introduction

In accordance with the Capital Investment Manual and requirements of HM Treasury's Green Book (A Guide to Investment Appraisal in the Public Sector), this section of the FBC documents the procurement process and provides evidence to show that we have selected the most economically advantageous offer, which best meets service needs and optimises value for money.

4.2 Critical Success Factors

The Critical Success Factors (CSF's) identified in the OBC were as follows:

Critical Success Factors	How well does the option…
Strategic Fit and Business Needs (Strategic Case)	• meet and support the over-arching aims of local and national strategy/legislation
Potential Value for Money (Economic Case)	• maximise the return on the required investment in terms of the economy • minimise associated risks
Capacity and Capability (Commercial Case)	• deliver the required level of service and functionality
Potential Affordability (Financial Case)	• deliver the project within the ascribed capital and revenue envelope
Potential Achievability (Management Case)	• deliver the project within the agreed timescale • deliver an operational, fit-for-purpose facility • satisfy the level of skills required to deliver the project successfully

Table 14: Critical Success Factors

4.3 OBC Long-List of Options

Following approval of the OBC, the options appraisal has been reviewed and re-presented as part of this FBC in order to validate and further demonstrate that the conclusions of the economic appraisal in the OBC remain valid. The findings of the review undertaken are summarised below.

4.3.1 Long List Development

The long list of options was generated by a workshop held on 15/03/2017, in accordance with best practice contained in the Capital Investment Manual. Attendees of this workshop were as follows:

Name	Title
John Tufts	Senior Capital Project Manager, Estates Department PTHB
Louise Morris	Associate Healthcare Planner, Boyes Rees Architects
Lesley Sanders	Integrated Community Team Manager, PTHB
Greg Chambers	Finance Business Partner, PTHB
Jayne Lawrence	Head of Primary Care, PTHB
Neil Miles	Assistant Director of Planning

Table 15: Option Appraisal Team

The long list of options were developed and categorised under the headings of Scope, Technical Solution, Service Delivery, Implementation and Funding as follows:

4.3.2 Scoping Options

In accordance with the Treasury Green Book and Capital Investment Manual, the do nothing/status quo/option has been considered as a baseline for potential Value for Money. The following main options have been considered:

- Option 1.1: Maintain Status Quo
- Option 1.2: the Minimum Scope
- Option 1.3: the Intermediate Scope
- Option 1.4: the Maximum Scope

Service	1.1 Status Quo	1.2 Minimum Scope	1.3 Intermediate Scope	1.4 Maximum Scope
Inpatients	✓	✓	✓	✓
Day Assessment Unit	×	×	×	✓
Palliative Care	× Service is currently offered but in a ward environment	× Service is currently offered but in a ward environment	✓	✓
Palliative Care Day services such as complimentary therapies	×	×	✓	✓
MSK Physiotherapy	✓	✓	✓	✓

Service	1.1 Status Quo	1.2 Minimum Scope	1.3 Intermediate Scope	1.4 Maximum Scope
Community Physiotherapy	✗	✗	✓ Provide a base for integrated working	✓ Provide a base for integrated working
X-ray	✓	✓	✓	✓
Outpatients	✓	✓	✓	✓
Optometrists	✗	✗	✓	✓
District Nurse – wound clinic	✓ Current clinic room non-compliant	✓	✓	✓
Community Resources	✗	✗	✓	✓
Mortuary	✓	✗	✗	✓
Women and children's services	✓	✓	✓	✓
Birthing Unit	✗	✗	✗	✓
Adult mental health Services	✓	✓	✓	✓
GMS services (Machynlleth Medical Practice)	✗	✓	✓	✓
GMS services (Glantwymyn Health Centre)	✗	✗	✓ Partial	✓ Full
Minor injuries/Minor Surgery	✗	✗	✓	✓
Podiatry	✓	✓	✓	✓
Community & NHS Dental	✗	✗	✓	✓ 2 No Dental suites
Patient/Public refreshments/cafe	✗	✗	✓	✓
Complimentary Therapies	✗	✗	✓	✓

Service	1.1 Status Quo	1.2 Minimum Scope	1.3 Intermediate Scope	1.4 Maximum Scope
Social Services & third sector providers	✗	✗	✓	✓
Office Accommodation: Integrated Health and Social Care Community Teams	✗	✓ (Partially)	✓	✓
Therapy Gardens	✗	✗	✓	✓

Table 16: Potential Scope of Services

4.3.2.1 Option 1.1: Status Quo

There will be no further reconfiguration of services at BDCH. Services will continue to be provided as they currently are, i.e., there will be no enhancement of services or co-location with Social Care Services or Third Sector. Primary Care services will continue to be delivered from the two current sites on Forge Rd and Cemmeas Rd. There will be no improvement in the issues highlighted in Section 3.3.3 Essential maintenance will be carried out to LWH over the lifetime of the project but it will not be brought up to modern standards.

Advantages	Disadvantages
Less capital investment required.	Does not respond to local and national policy guidance
	Does not support PTHB's key aims and strategic objectives
	Does not allow for the integration of Primary Care on the site
	Does not support the key investment objective of providing care closer to peoples' homes
	Does not allow for integration or co-location of social and community services or third sector
	Current accommodation does not allow for expansion in range or capacity
	Current accommodation does not allow for improvements in accessibility or compliance
	Does not respond to the specific healthcare needs/requirements of the local population

	Existing arrangements are not fit for purpose, and infrastructure is unsuitable for the provision of modern healthcare service delivery
	Existing arrangements present fragmented access to services, and preclude greater one-stop approach being developed

Table 17: Advantages and Disadvantages of Option 1.1

4.3.2.2 Option 1.2: Minimum Scope

The services included in the minimum scope are identified in table 16 above. This option allows for moving services from Machynlleth Medical Practice into the main building but fundamentally without any additional enhancements for social, community and third sector and no reconfiguration of public spaces to create a 'Community hub'. This option also assumes that palliative care services will continue to be provided on site but within existing ward accommodation.

Advantages	**Disadvantages**
Relocates services from Machynlleth Medical Practice which represents an annual saving of **£83k**	Does not fully respond to local and national policy guidance
Some change to current accommodation that enables improved Health Board services and improved patient experience	Does not fully support PTHB's key aims and strategic objectives
Some reduction in fragmented accessibility	Does not allow for integration or co-location of social and community services or third sector
	Does not allow for expansion particularly in addressing the future needs of Primary Care Services
	Does not respond to the specific healthcare needs/requirements of the local population
	Some Capital Investment required

Table 18: Advantages and Disadvantages of Option 1.2

4.3.2.3 Option 1.3: Intermediate Scope

The services included in the intermediate scope are identified in table 16 above. This option allows for moving services from Machynlleth Medical Practice along with the inclusion of rooms which are currently part of a planned extension at the Cemmeas Rd practice. The Primary Care element would also allow for additional accommodation providing an element of expansion potential and allowing for the development of enhanced services as described in section 3.1.1.2.1. This option also includes enhancements for social, community and third sector and

reconfiguration of public spaces to create a Community 'hub'. This option also includes for improvements in palliative care services with the addition of a dedicated suite with relatives' facilities and garden project.

Advantages	Disadvantages
Relocates services from Machynlleth Medical Practice which represents an annual saving of **£83k**	Higher Capital Investment required
Allows for additional space currently required at Cemmaes Rd	
Achieves Primary Care objectives of providing a centre of excellence for rural primary care	
Responds to local and national policy guidance	
Supports PTHB's key aims and strategic objectives	
Support the key investment objective of providing care closer to peoples' homes	
Allows for integration or co-location of social and community services or third sector	
Allows for expansion in range and capacity of services	
Provides fit for purpose Accommodation with improvements in accessibility or compliance	
Improves access to services, and allows PTHB to create a 'one stop shop' for health and well-being for the local community	

Table 19: Advantages and Disadvantages of Option 1.3

4.3.2.4 Option 1.4: Maximum Scope

The services included in the Maximum scope are identified in table 16 above. The service scope in this option will be as above with the addition of Glantwymyn Medical Centre, expanding the Maternity unit to include birthing and a mortuary.

Advantages	Disadvantages
Relocates services from Machynlleth Medical Practice which represents an annual saving of **£89k**	Higher Capital Investment required
Relocates services from Cemmaes Rd representing a saving of **£39.5k**	Political sensitivities around the closure of Glantwymyn Medical centre
Achieves Primary Care objectives of providing a centre of excellence for rural primary care	The current site does not have the capacity to allow for the range of enhancements detailed in this option

Support the key investment objective of providing care closer to peoples' homes	The addition of the birthing unit does not form part of PTHB's key aims and strategic objectives
Allows for integration or co-location of social and community services or third sector	Higher Capital Investment required
Allows for expansion in range and capacity of services	Does not fully support PTHB's strategy for the closure of on-site mortuaries
Provides fit for purpose accommodation with improvements in accessibility or compliance	
Improves access to services, and allows PTHB to create a 'one stop shop' for health and well-being for the local community	

Table 20: Advantages and Disadvantages of Option 1.4

4.3.2.5 Overall Conclusion: Scoping Options

The table below summarises the assessment of each option against the investment objectives and critical success factors:

Option:	**1.1**	**1.2**	**1.3**	**1.4**
Description:	Status Quo	Minimum	Intermediate	Maximum
Investment Objectives				
1. To provide services in modern, fit for purpose accommodation which achieves statutory and regulatory compliance.	✗	✓	✓	✓
2. To increase the range of services available as an integral part of primary care.	✗	✓	✓	✓
3. To provide safe and sustainable services	✗	✓	✓	✓
4. To improve the integration of community, primary care, social services and third sector.	✗	✓	✓	✓
5. To improve economic, social, environmental and cultural well-being	✗	✓	✓	✓
Critical Success Factors				
Strategic Fit and Business Needs (Strategic Case)	✗	✓	✓	✗
Potential Value for Money (Economic Case)	✗	✓	✓	✗

Capacity and Capability (Commercial Case)	✓	✓	✓	✗
Potential Affordability (Financial Case)	✓	✓	✓	✓
Potential Achievability (Management Case)	✓	✓	✓	✗
Summary	**Taken Forward**	**Possible**	**Preferred**	**Discounted**

KEY	✗	does not meet	✓	partially meets	✓	meets

Table 21: Assessment of Scoping Options

Option		**Findings**
Scope		
1.1	Status Quo	**Taken forward:** This option does not meet the principal needs of the scheme as defined in the investment objectives and critical success factors. However, it has been retained as a comparator.
1.2	Do Minimum	**Possible:** This option partially meets the needs of the scheme as defined in the investment objectives and critical success factors.
1.3	Intermediate	**Preferred:** This option would meet all of the principal needs of the scheme as defined in the investment objectives and critical success factors.
1.4	Do Maximum	**Discounted:** This option includes services which do not fit with the investment objectives and critical success factors.

Table 22: Scoping Options Findings

4.3.3 Technical Solution Options

4.3.3.1 Introduction

A number of options including new build were considered and discounted at an early stage. As detailed in the Strategic Case the location of BDCH is fundamental in the delivery of Healthcare in the area. The site also has particular historic significance to the local community and is in a conservation area. The build cost for a replacement facility (to include primary care) has been identified as approximately **£15m**. As this was significantly higher than a refurbishment and alternative sites had been discounted this would also have posed significant phasing complications and difficulties in the continuing delivery of services. An outline cost for a potential 'Do Maximum' option which would include the improvement and reconfiguration of the entire was also identified as **£10.2m.** This option was also discounted at an early stage due to both the level of Capital investment required and the fact that many areas at the rear of the site require little or no reconfiguration and that any compliance risks identified in this area were deemed as 'Low' risk.

Three options were identified as being viable for the long list. This range of options considers the technical solutions in relation to the preferred scope. The range of technical solution options are detailed below:

- Option 2.1: Status Quo
- Option 2.2: Core
- Option 2.3: Core + Desirable
- Option 2.4: Core + Desirable + Optional

4.3.3.2 Option 2.1: Status Quo

PTHB would fail to make any repairs or improvements to the front block of BDCH. This option would achieve none of the objectives of the business case and would result in the eventual closure of departments. It is included for comparative purposes only.

Advantages	Disadvantages
No Capital Investment Required	This option would fail to maintain a valuable property asset. In this case the property would continue to deteriorate and ultimately it could be expected to fall into further disrepair and require greater financial resource to remedy the problems, or become unusable as accommodation. This option would not support the PTHB strategic plans for reconfiguration/refurbishment of any clinical services. Listed as a comparator only.

Table 23: Advantages and Disadvantages of Option 2.1

4.3.3.3 Option 2.2: Core

Carry out essential repairs, maintenance and improvements to the roof and building fabric of the front block of BDCH for full compliance

Advantages	Disadvantages
Less Capital Investment Required	does not fully support the PTHB's future investment objectives
Addresses the issues associated with the roof and maintenance repairs/improvements	Would not make any improvements to the quality or suitability of the patient/staff environment
Addresses non-compliance in relation to infrastructure	Would not address issues of HBN compliance
Reduce current backlog maintenance (by **£2.5M** or **47%**) and prevent further service closures	Would not address the under-utilisation or inappropriate usage of the building footprint
	Does not allow for the opportunity to re-orientate the model of care currently delivered from the hospital

	and to develop the site into a health and well-being centre integrating Diagnostic, Assessment and Treatment services

Table 24: Advantages and Disadvantages of Option 2.2

4.3.3.4 Option 2.3: Core + Desirable

Carry out essential repairs, maintenance and improvements to the roof and building fabric of the front block of BDCH for full compliance and reconfigure the internal layout to provide accommodation for the inclusion of Machynlleth Medical Centre.

Advantages	**Disadvantages**
Addresses the issues associated with the roof and maintenance repairs/improvements	Does not allow for the opportunity to re-orientate the model of care currently delivered from the hospital and to develop the site into a health and well-being centre integrating Diagnostic, Assessment and Treatment services
Addresses non-compliance in relation to infrastructure	does not fully support the PTHB's future investment objectives
Reduce current backlog maintenance (by approximately **50%**) and prevent further service closures	
Relocates services from Machynlleth Medical Practice which represents an annual saving of **£83k**	
Would make improvements to the quality or suitability of the patient/staff environment	
Addresses issues of HBN compliance	
Addresses the under-utilisation or inappropriate usage of the building footprint	

Table 25: Advantages and Disadvantages of Option 2.3

4.3.3.5 Option 2.4: Core + Desirable + Optional

Carry out essential repairs, maintenance and improvements to the roof and building fabric of the front block of BDCH for full compliance and reconfigure the internal layout to develop a diagnostic, assessment and treatment hub, incorporating primary care. This option would also include a series of extensions to maximise available space for the inclusion of third sector and community services.

Advantages	Disadvantages
Addresses the issues associated with the roof and maintenance repairs/improvements	More Capital investment required
Addresses non-compliance in relation to infrastructure	
Reduce current backlog maintenance (by **£3.5M** or **66%)**and prevent further service closures	
Relocates services from Machynlleth Medical Practice which represents an annual saving of **£83k**	
Would make improvements to the quality or suitability of the patient/staff environment	
Addresses issues of HBN compliance	
Addresses the under-utilisation or inappropriate usage of the building footprint	
Allows for the re-orientation of the model of care currently delivered from the hospital and to develop the site into a health and well-being centre integrating Diagnostic, Assessment and Treatment services	
Fully supports the PTHB's future investment objectives	

Table 26: Advantages and Disadvantages of Option 2.4

4.3.3.6 Overall Conclusion: Technical Solution Options

The table below summarises the assessment of each option against the investment objectives and critical success factors:

Option:	2.1	2.2	2.3	2.4
Description:	Status Quo	Core	Core + Desirable	Core + Desirable + Optional
Investment Objectives				
1. To provide services in modern, fit for purpose accommodation which achieves statutory and regulatory compliance.	×	×	✓	✓
2. To increase the range of services available as an integral part of primary care.	×	×	✓	✓
3. To provide safe and sustainable services	×	✓	✓	✓

4. To improve the integration of community, primary care, social services and third sector.	✗	✗	✓	✓
5. To improve economic, social, environmental and cultural well-being	✗	✓	✓	✓
Critical Success Factors				
Strategic Fit and Business Needs (Strategic Case)	✗	✗	✓	✓
Potential Value for Money (Economic Case)	✗	✗	✓	✓
Capacity and Capability (Commercial Case)	✗	✗	✓	✓
Potential Affordability (Financial Case)	✗	✓	✓	✓
Potential Achievability (Management Case)	✗	✓	✓	✓
Summary	**Taken Forward**	**Discounted**	**Possible**	**Preferred**

KEY	✗	does not meet	✓	partially meets	✓	meets

Table 27: Assessment of Technical Solution Options

Option		**Findings**
Technical Solution		
2.1	Status Quo	**Taken forward:** This option does not meet the principal needs of the scheme as defined in the investment objectives and critical success factors. However, it has been retained as a comparator.
2.2	Core	**Discounted:** This option includes services which do not fit with the investment objectives and critical success factors.
2.3	Core + Desirable	**Possible:** This option partially meets the principal needs of the scheme as defined in the investment objectives and critical success factors
2.4	Core + Desirable + Optional	**Preferred:** This option would meet all of the principal needs of the scheme as defined in the investment objectives and critical success factors.

Table 28: Technical Solutions Options Findings

4.3.4 Service Delivery Options

4.3.4.1 Introduction

The following range of options considers the technical options for service delivery in relation to the preferred scope and solution. The range of service delivery options are detailed below:

- Option 3.1: In House – management and delivery of services by the Health Board.
- Option 3.2: Outsource – management and delivery of services by an external organisation.
- Option 3.3: Strategic Partnership – a managed arrangement between the Health Board to jointly manage and deliver services

4.3.4.2 Option 3.1: In House

This option describes the services delivered by the Health Board, and managed by the Health Board.

Advantages	Disadvantages
The Health Board retains overall responsibility and control of service delivery.	Service delivery risks remain with the Health Board
Expertise is retained/managed within the Health Board	
Staffing resource is retained/managed by the Health Board.	

Table 29: Advantages and Disadvantages of Option 3.1

4.3.4.3 Option 3.2: Outsource

This option describes the service being delivered by an organisation outside the Health Board.

Advantages	Disadvantages
The bulk of service delivery risks are transferred to the provider.	Loss of control, staff and expertise; professional accountability in specialist professions and accountability for the Health Board in the execution and delivery of its statutory responsibilities.
Potential to deliver services for which internal expertise does not exist.	Requires complex contractual models, which currently do not exist or do not comply with Welsh Government policy.

Table 30: Advantages and Disadvantages of Option 3.2

4.3.4.4 Option 3.3: Strategic Partnership

This option describes a strategic partnership arrangement for the provision of services between the Health Board and other organisations (e.g.: consideration of a strategic partnership agreement with an outside organisation to help in the provision of services).

Advantages	Disadvantages
Shared responsibility of service delivery and risk.	Potential for problems to arise over integration of services; professional accountability in specialist professions and accountability for the Health Board in the execution and delivery of its statutory responsibilities.
Potential to deliver services for which internal expertise does not exist.	May require complex contractual models, which currently do not exist or do not comply with Welsh Government policy.

Table 31: Advantages and Disadvantages of Option 3.3

4.3.4.5 Overall Conclusion: Delivery Options

The table below summarises the assessment of each option against the investment objectives and critical success factors.

Option:	3.1	3.2	3.3
Description:	In House	Outsource	Strategic Partnership
Investment Objectives			
1. To provide services in modern, fit for purpose accommodation which achieves statutory and regulatory compliance.	✓	×	×
2. To increase the range of services available as an integral part of primary care.	✓	×	×
3. To provide safe and sustainable services	✓	×	×
4. To improve the integration of community, primary care, social services and third sector.	✓	×	×
5. To improve economic, social, environmental and cultural well-being	✓	×	×

Critical Success Factors			
1. Strategic Fit and Business Needs (Strategic Case)	✓	×	×
2. Potential Value for Money (Economic Case)	✓	×	×
3. Capacity and Capability (Commercial Case)	✓	?	?
4. Potential Affordability (Financial Case)	✓	?	?
5. Potential Achievability (Management Case)	✓	?	?
Summary	**Preferred**	**Discounted**	**Discounted**

KEY	×	does not meet	?	unknown	✓	meets

Table 32: Assessment of Service Delivery Options

Option		Findings
Service Delivery		
3.1	In-House	**Preferred:** This option provides the most acceptable solution in terms of use of staff, skills and resources.
3.2	Outsource	**Discounted:** This option has been discounted as it fails to deliver integration of services.
3.3	Strategic Partnership	**Discounted:** This option has been discounted as it is unclear whether it delivers integration of services, and because of the increased complexity and achievability issues.

Table 33: Service Delivery Options Findings

4.3.5 Implementation Options

4.3.5.1 Introduction

This range of options gives consideration for implementation in relation to the preferred scope, service solution and method of service delivery. The range of implementation options is detailed below:

- Option 4.1: Single Stage – All service changes delivered within a single phase.
- Option 4.2: Phased – Service changes are implemented in multiple phases.

4.3.5.2 Option 4.1: Single Stage

This option assumes that all the required services could be delivered within the initial phase(s) of the project

Advantages	Disadvantages
Faster Implementation	
Potentially lower costs	

Table 34: Advantages and Disadvantages of Option 4.1

4.3.5.3 Option 4.2: Phased

This option assumes that the implementation of the required development and services would be phased.

Advantages	Disadvantages
	Phased approach takes longer to implement and delays benefits.
	Potentially higher Capital costs

Table 35: Advantages and Disadvantages of Option 4.2

4.3.5.4 Overall Conclusion: Implementation Options

The table below summarises the assessment of each option against the investment objectives and critical success factors

Option:	4.1	4.2
Description:	Single Phase	Phased
Investment Objectives		
1. To provide services in modern, fit for purpose accommodation which achieves statutory and regulatory compliance.	✓	✓
2. To increase the range of services available as an integral part of primary care.	✓	✓
3. To provide safe and sustainable services	✓	✓
4. To improve the integration of community, primary care, social services and third sector.	✓	✓
5. To improve economic, social, environmental and cultural well-being	✓	✓

Critical Success Factors		
1. Strategic Fit and Business Needs (Strategic Case)	✓	✓
2. Potential Value for Money (Economic Case)	✓	✗
3. Capacity and Capability (Commercial Case)	✓	✗
4. Potential Affordability (Financial Case)	✓	✗
5. Potential Achievability (Management Case)	✓	✗
Summary	**Preferred**	**Discounted**

KEY	✗	does not meet	✓	meets

Table 36: Assessment of Implementation Options

Option		Findings
Implementation		
4.1	Single Phase	**Preferred:** This option provides the best balance of cost, implementation timescale and earlier delivery of benefits
4.2	Phased	**Discounted:** This option is discounted due to potential increased cost and complexity, which is unnecessary to maintain service delivery in this project.

Table 37: Implementation Options Findings

4.3.6 Funding Options

The range of options considers the choices available for funding and financing the scheme in relation to the preferred scope, technical solution, method of service delivery and implementation. The ranges of funding options available are detailed below:

- Option 5.1: Private Funding – The scheme is delivered via a 3rd party developed scheme utilising private capital monies.
- Option 5.2: Public Funding – The scheme is delivered via the NHS Capital Expenditure Programme.

Welsh Government has confirmed that, subject to the submission of a satisfactory business case, this scheme will be publically funded and owned as part of the NHS All-Wales Capital Programme. It is clear that the Health Board is not in a position to absorb the revenue pressures that alternative means of funding would entail.

Option	Scope	Findings
Funding		
5.1	Private Funding	**Discounted:** Third Party Development funding has been excluded as a viable funding option as the Health Board is not in a position to absorb the revenue pressures that this would entail.
5.2	Public Funding	**Preferred:** This scheme will be publicly funded and is part of the NHS Capital Expenditure Programme.

Table 38: Implementation Options Findings

4.3.7 The Long List: Inclusions and Exclusions

The long list has appraised a wide range of possible options.

Option		Findings
Scope		
1.1	Status Quo	**Taken forward:** This option does not meet the principal needs of the scheme as defined in the investment objectives and critical success factors. However, it has been retained as a comparator.
1.2	Minimum Scope	**Possible:** This option partially meets the needs of the scheme as defined in the investment objectives and critical success factors.
1.3	Intermediate Scope	**Preferred:** This option would meet all of the principal needs of the scheme as defined in the investment objectives and critical success factors.
1.4	Maximum Scope	**Discounted:** This option includes services which do not fit with the investment objectives and critical success factors.
Technical Solution		
2.1	Status Quo	**Taken forward:** This option does not meet the principal needs of the scheme as defined in the investment objectives and critical success factors. However, it has been retained as a comparator.
2.2	Core	**Discounted:** This option includes services which do not fit with the investment objectives and critical success factors.
2.3	Core + Desirable	**Possible:** This option partially meets the principal needs of the scheme as defined in the investment objectives and critical success factors
2.4	Core + Desirable + Optional	**Preferred:** This option would meet all of the principal needs of the scheme as defined in the investment objectives and critical success factors.
Delivery		
3.1	In-House	**Preferred:** This option provides the most acceptable solution in terms of use of staff, skills and resources.

Option		Findings
Scope		
3.2	Outsource	**Discounted:** This option has been discounted as it fails to deliver integration of services.
3.3	Strategic Partnership	**Discounted:** This option has been discounted as it is unclear whether it delivers integration of services, and because of the increased complexity and achievability issues.
Implementation		
4.1	Single Phase	**Preferred:** This option provides the best balance of cost, implementation timescale and earlier delivery of benefits
4.2	Phased	**Discounted:** This option is discounted due to potential increased cost and complexity, which is unnecessary to maintain service delivery in this project.
Funding		
5.1	Private Funding	**Discounted:** 3PD funding has been excluded as a viable funding option as the Health Board is not in a position to absorb the revenue pressures that this would entail.
5.2	Public Funding	**Preferred:** This scheme will be publicly funded and is part of the NHS Capital Expenditure Programme.

Table 39: Long List Inclusions and Exclusions

4.3.8 Preferred Way Forward

The *preferred* and *possible* options identified above have been carried forward into the short list for further appraisal and evaluation. All the options that were *discounted* as impracticable have been excluded at this stage. On the basis of this analysis, the recommended short-list for further appraisal within this business case is as follows:

	Option 1	Option 2	Option 3	Option 4
Scope	Status Quo	Status Quo	Minimum	Intermediate
Technical	Status Quo	Core	Core + Desirable	Core + Desirable + Optional
Service	In-house	In-house	In-house	In-house
Implementation	Single Phase	Single Phase	Single Phase	Single Phase
Funding	Public	Public	Public	Public

Table 40: Preferred Way Forward

4.4 Economic Appraisal of Short-Listed Options

This section provides a detailed analysis of the main costs and benefits associated with each of the shortlisted options. The benefits are evaluated in terms of:

- a qualitative benefits analysis;
- an analysis of the monetised benefits – cash releasing and non-cash releasing;
- a risk analysis

4.4.1 Benefits Comparison

The main benefits associated with each option are highlighted below. These were used to assist the benefits appraisal process:

Option 2 Benefits:

- Reduction in backlog maintenance (by 47%)
- Reduce the risks associated with potential service closures

Additional benefits associated with Option 3:

- Relocates services from Machynlleth Medical Practice which represents an annual saving of £83k
- Some change to current accommodation that enables improved Health Board services and improved patient experience
- Some reduction in fragmented accessibility
- Would make improvements to the quality or suitability of the patient/staff environment
- Addresses issues of HBN compliance
- Addresses the under-utilisation or inappropriate usage of the building footprint

Additional benefits associated with option 4:

- Further reduction in backlog maintenance (by 66%)
- Allows for additional space currently required at Cemmaes Rd
- Achieves Primary Care objectives of providing a centre of excellence for rural primary care
- Responds to local and national policy guidance
- Supports PTHB's key aims and strategic objectives
- Supports the key investment objective of providing care closer to peoples' homes
- Allows for integration or co-location of social and community services or Third Sector
- Allows for expansion in range and capacity of services

- Provides fit for purpose accommodation with improvements in accessibility or compliance
- Improves access to services, and allows PTHB to create a 'one stop shop' for health and well-being for the local community
- Allows for the re-orientation of the model of care currently delivered from the hospital and to develop the site into a health and well-being centre integrating Diagnostic, Assessment and Treatment services
- Community enhancements including café, therapeutic gardens, optometry, community dentistry, complimentary therapies, minor injuries and third sector services.

4.4.2 Qualitative Benefits Appraisal

A workshop was held on 27/04/2017 to evaluate the qualitative benefits associated with each option. Attendees of this workshop were as follows:

Name	Title
John Tufts	Senior Capital Project Manager, Estates Department PTHB
Louise Morris	Associate Healthcare Planner, Boyes Rees Architects
Lesley Sanders	Integrated Community Team Manager, PTHB
Greg Chambers	Finance Business Partner, PTHB
Jayne Lawrence	Head of Primary Care, PTHB
Neil Miles	Assistant Director of Planner

Table 41: Workshop attendees

4.4.2.1 Methodology

The appraisal of the qualitative benefits associated with each option was undertaken by:

- identifying the benefits criteria relating to each of the investment objectives
- weighting the relative importance (in %s) of each benefit criterion in relation to each investment objective
- scoring each of the short-listed options against the benefit criteria on a scale of 0 to 10
- deriving a weighted benefits score for each option

4.4.2.2 Qualitative Benefits Criteria

The qualitative benefits criteria were defined as follows for each investment objective:

Criteria	Sub Criteria
Clinical Quality & Safety	• Opportunities for integration and colocation of several specialisms to offer a more holistic approach for patients and improve patient pathways

Criteria	Sub Criteria
	• Best outcomes for patients; quality of care is enhanced in terms of the model of care and seamless pathways of care • Patient safety is enhanced, in terms of infection prevention and control, operating risks and other safety measures • Potential to Improve clinical outcomes for patients • Ability to provide safe, evidence-based services • Focus on prevention and self-management • Improved environment for undertaking minor procedures in a primary care environment • Keeping people healthier for longer
Environmental Quality	• Fabric improvements to the building envelope preventing service closures and providing more useable clinical space • Compliance with Welsh Health Building Notes/Welsh Health Technical Memoranda • Reduced backlog maintenance leading to less downtime to improve the quality of patient services • Improved patient satisfaction • Enhancements in relation to the Equality Act 2010 • Improved quality of environment • Improved patient flow • Appropriate infrastructure, right equipment, IT systems, medical records
Accessibility	• Maintaining Services currently being delivered from Machynlleth • As much care as possible is delivered within Powys • Right care, right place, right time • Creation of community 'hub' • Colocation of services • Moving more secondary care services to primary care, and developing links between the community and the local hospitals could reduce the reliance on out of county District General Hospitals. • Ability to meet current and future demands • Addresses needs of local community • Simple pathways and access points • Public education and communication re: pathways and access points • Improve recruitment and retention of staff • Improved Welsh language access • Improved access to services • Ability to respond to the changing needs of the population
Integration/Efficiency	• Enhanced integration of hospital and primary care services A Primary care based facility in which patients can be observed/assessed over a longer period of time (as necessary) prior to being admitted to the DGH.

Criteria	Sub Criteria
	• Increase opportunity for multi-agency/partnership working with Social Care and Third Sector services • Increased clinical efficiency and flow • Flexibility • Maintaining people's independence • Less fragmentation between services • Improved teaching and shared learning • Efficient use of resources • Flexibility of workforce • Improved skill mix
Deliverability & Sustainability	• The model can be delivered within existing constraints e.g. workforce to deliver the model is available • Model of care realistic and achievable within a reasonable timeframe • Primary Care – opportunity to offer services within a single clinical model • Training and education to promote a sustainable workforce • Sustainability of current services • Transition to the model of care can be delivered safely thereby minimising risk to service provision in the interim • Deliverable within reasonable timescales (12-18 months)

Table 42: Qualitative Benefits Criteria

4.4.2.3 Weighting of Criteria

The weightings given to each of the criteria are shown below:

Criteria	Weighting
Clinical Quality & Safety	25
Environmental Quality	30
Accessibility	20
Integration/Efficiency	15
Deliverability	10
Total	**100%**

Table 43: Weighting of Benefits Criteria

4.4.2.4 Benefit Scoring

Benefits scores were allocated on a range of 0-10 for each option and agreed in discussion by the workshop participants to confirm that the scores were fair and reasonable. A score of zero indicated that the option failed to satisfy the criteria in any respect. A score of ten indicated that the option satisfied the criteria perfectly.

4.4.2.4.1 Option 1

Benefits Criteria	Score	Comment
Clinical Quality & Safety	1	The current service is realised however this is currently being delivered from accommodation which is not fit-for-purpose and not sustainable
Environmental Quality	1	Lack of accreditation/compliance, privacy and dignity and patient and staff satisfaction
Accessibility	3	This option offers no improvement in service accessibility
Integration/Efficiency	2	This option allows for no improvement in integration or efficiency
Deliverability	3	The current situation is deliverable however, it is not sustainable and if left unchanged is likely to result in closures

Table 44: Option 1 Benefit Scoring

4.4.2.4.2 Option 2

Benefits Criteria	Score	Comment
Clinical Quality & Safety	4	Dealing with fundamental building fabric and infrastructure issues would make moderate improvements to clinical quality & safety
Environmental Quality	6	Dealing with fundamental building fabric and infrastructure issues would improve environmental quality in terms of heating/lighting etc. and deal with issues of damp
Accessibility	5	There is less risk to accessibility of services by dealing with fundamental compliance issues
Integration/Efficiency	3	This option offers no improvement in service accessibility
Deliverability	5	This model is more sustainable as it deals with immediate maintenance issues

Table 45: Option 2 Benefit Scoring

4.4.2.4.3 Option 3

Benefits Criteria	Score	Comment
Clinical Quality & Safety	6	The addition of a reconfiguration of the current accommodation will not only deal with infrastructure compliance but also ensure rooms follow relevant HBN and HTM guidance. Integration will also be improved
Environmental Quality	7	The total refurbishment of the area will improve environmental quality and patient experience
Accessibility	7	The integration of Primary care will go a long way to improving access to services for the local community
Integration/Efficiency	6	The inclusion of primary care in this option improves integration and efficiency of the patient pathway. However it does not fully exploit integration of community and third sector services

Deliverability	7	This option offers a potential revenue saving by integrating the services currently delivered from rented accommodation

Table 46: Option 3 Benefit Scoring

4.4.2.4.4 Option 4

Benefits Criteria	Score	Comment
Clinical Quality & Safety	9	This option maximises Clinical quality and safety by dealing with all compliance issues as well as providing PTHB with an opportunity to reshape the way that community health and well-being services are delivered
Environmental Quality	9	The total refurbishment of the area will improve environmental quality and patient experience whilst the additional space provided allows for a community 'hub' focusing on health promotion
Accessibility	8	The integration of Primary care will go a long way to improving access to services for the local community. This option would further enhance the range of services available
Integration/Efficiency	8	This option represents the most benefits in terms of interation and efficiency by providing a base for primary care as well as community and third sector services
Deliverability	8	This option offers a potential revenue saving by integrating the services currently delivered from rented accommodation plus the flexibility and capacity to react to changes in demand and models of care

Table 47: Option 4 Benefit Scoring

4.4.2.5 Summary of Results

Benefit Criteria	Weight	Score					Weighted Score			
		Option 1	Option 2	Option 3	Option 4		Option 1	Option 2	Option 3	Option 4
Clinical Quality & Safety	25	1	4	6	9		25	100	150	225
Environmental Quality	30	1	6	7	9		30	180	210	270
Accessibility	20	3	5	7	8		60	100	140	160
Integration/Efficiency	15	2	3	6	8		30	45	90	120
Deliverability	10	3	5	7	8		30	50	70	80
Total	**100**	**10**	**23**	**33**	**42**		**175**	**475**	**660**	**885**
Ranking		4	3	2	1		4	3	2	1

Table 48: Summary of Benefits Scoring

4.4.2.6 Sensitivity Analysis

A sensitivity analysis was undertaken to test the robustness of the ranking of the options. The methods used were:

- Equal weighting
- Exclusion top ranked criteria
- Switching values

Undertaking the sensitivity analysis shows that the preferred option would not be different under any of the alternative methods (see **Appendix I**).

4.4.3 Financial Benefits Appraisal

The costing assumptions for the economic appraisal of financial benefits are outlined below. The methodology is based upon the information provided by the DoH using the Generic Economic Model (GEM) for OBCs. The assumptions included within the model are:

- Prices are maintained at a constant rate and are not inflated/indexed each year with 2017/18 as the baseline
- Capital and lifecycle costs are exclusive of VAT
- Revenue costs exclude the depreciation charge
- The cash flow has been discounted over a 30 year period for the do minimum option and 60 years for the other options
- The cash flow factor applied is 3.5% up to 30 years and 3% thereafter.

4.4.3.1 Cost/price base

Costs are based at 2015/16 price base.

4.4.3.2 Appraisal Period

The proposed development is a combination of new build extension and refurbishment works and as such the appraisal has been undertaken over a period of 60 years plus the construction phase in line with Department of Health (DoH) guidance.

4.4.3.3 Summary of NPV and AEC Appraisal

Summary of NPV and AEC Appraisal				
	Option 1	**Option 2**	**Option 3**	**Option 4**
	(£m)	**(£m)**	**(£m)**	**(£m)**
NPV	-£2.105	-£4.013	-£5.059	-£5.943
AEC (Annual Equivalent Cost)	-£0.168	-£0.321	-£0.404	-£0.475
Ranking	**1**	**2**	**3**	**4**

Table 49: Summary of NPV and AEC Appraisal

The detailed economic appraisals for each option are attached in the relevant **Appendix J**.

4.4.4 Risk Assessment

A risk register was originally developed in 2015/16 by stakeholders including senior clinicians, service managers, and representatives from workforce management and planning. A risk assessment workshop was held in April 2017. The workshop participants included core project team members who reviewed the key risks identified, these were then verified by the Project Board. Stakeholders were also asked to provide feedback on relevant risk sections independently. It was agreed that the following risks should be assessed against each of the options:

4.4.4.1 Building Environment - Fitness for Purpose

There is a recognised risk associated with compliance and quality of the existing building, which if left unaddressed is likely to lead to building failure and the potential closure of services. As the scope of works increases this risk is reduced. Option 4 addresses the largest footprint, as well as offering the maximum environmental benefits and therefore achieves the lowest risk score. This Option tackles **66%** of all compliance risks for the Hospital and all risks representing a **'medium-high'** or **'high'** risk of non-compliance.

4.4.4.2 Clinical Services

The quality of the current services is recognised however, there is currently no scope for improvement or integration of services or the ability to respond to future changes in demand or models of care. By co-locating and integrating services the building will benefit from improved efficiency, streamlining of patient pathways and improved patient and visitor experience. Option 4 received the lowest risk score as it offers the most flexibility and is therefore the most resilient to change.

4.4.4.3 Workforce

By providing training facilities, improved environmental quality and enhanced facilities option 4 offers an opportunity to create a sustainable workforce in Machynlleth by improving the recruitment and retention and engagement of staff.

4.4.4.4 Key Risks Identified

The relative risks of the four shortlisted options have been considered. The key risks associated with each option are identified in the following table and given a relative risk score from 0-10:

Risk	Option 1			Option 2			Option 3			Option 4		
	Impact	Likelihood	Total	Impact	Likelihood	Total	Impact	Likelihood	Total	Impact	Likelihood	Total
Building quality	9	9	18	7	7	14	6	6	12	4	4	8
Clinical Services	8	8	16	7	7	14	4	4	8	3	2	5

Workforce	8	7	15	8	6	14	8	5	12	8	2	6
Integrated Care	5	8	15	5	7	14	5	5	12	5	2	8
Patient experience	6	8	14	5	6	11	4	4	8	2	2	4
Total	**36**	**40**	**76**	**32**	**33**	**65**	**27**	**24**	**51**	**22**	**12**	**33**
Ranking	**4**			**3**			**2**			**1**		

Table 50: Risk Assessment

4.4.5 Optimism Bias

The risk associated with optimism bias is considered to be relatively low on the basis that:

- The design is well advanced
- There has been (and continues to be) good stakeholder engagement, resulting in a full identification of stakeholder requirements

It is therefore proposed to manage project capital risk through the 15% contingency sum with no adjustment for optimism bias.

4.4.6 Preferred Option

The table below summarises the key outcomes and rankings of the qualitative benefits, the monetised benefits and the risk appraisals of the shortlisted options:

Appraisal	Option 1	Option 2	Option 3	Option 4
Qualitative	4	3	2	1
Financial	1	2	3	4
Risk	4	3	2	1
Overall Ranking	**4**	**3**	**2**	**1**

Table 51: Overall Assessment

Following an economic, benefits and risk appraisal of each option, it was concluded that **Option 4** was the preferred way forward: The total refurbishment of the front block of BDCH including all relevant infrastructure and building fabric issues in order to achieve compliance. The complete reconfiguration of the area including new build extension to develop the site into a health and well-being centre integrating Diagnostic, Assessment and Treatment services.

5 The Commercial Case

5.1 Introduction

This section of the FBC sets out the negotiated arrangements in relation to the preferred option outlined in *Section 4: The Economic Case*. The aim of the Commercial Case is to demonstrate that the preferred option will result in a viable procurement and well-structured deal. This section describes the planning and management of the procurement.

In accordance with national guidance the contract will be the National Engineering Contract (NEC) 3 ECC Option A contract.

5.2 Procurement Process

This project is being procured via the SCAPE Framework which enables public sector clients to procure their construction projects efficiently and economically by speeding up and reducing the complexity of the procurement process. The SCAPE National Minor Works Framework (The Framework) has been pre-procured through an OJEU tender process which enables Public Organisation schemes to begin immediately, without mini-competition, whether a new build, maintenance or refurbishment programme. The SCAPE National Minor Works Framework is attached at **Appendix K**.

The Framework is available nationally through a network of 65 locally managed offices provided by Kier and projects valued between **£50,000** and **£4 million** (works costs) can be procured through this framework. This framework was utilised successfully for the first phase of the Llandrindod Wells hospital reconfiguration and was selected at project inception when the project scope was limited to compliance issues with a projected works cost of **£2,741,500**. During design development the design scope increased to include the reconfiguration of services raising the works cost to **£4,804,504**, however in order to maintain continuity of the team the framework has continued to be used.

5.2.1 SCAPE

The Scape Framework was selected in order to realise the following benefits:

- ***Efficient route to market***. The framework has been through an "OJEU" tender satisfying requirements of EU Procurement Directives.
- ***Accessible*** to any UK public sector organisation
- Open book costing ensuring ***Value for Money*** can be demonstrated
- ***Early Engagement*** of the contractor in the process leading to:
    - Improved Risk management
    - Reduced programme of design and construction

  - Greater predictability in relation to cost and programme
- Higher quality of design and construction leading to ***reduced defects***
- ***Reduced accident rate*** on site
- Procuring significant volumes of projects and services over a defined period enables the frameworks to command highly ***competitive and fixed rates***
- All sub-contract work subject to competitive tendering allowing ***local suppliers*** to bid for aspects of the project
- Scape frameworks are designed to achieve ***measurable time, quality*** **and** ***cost*** on every project and commission
- Scape provides an environment of ***collaboration and innovation***, forming partnerships to achieve efficiency and the successful delivery of services to drive ***social and community benefits*** *which are targeted and measured*.

5.2.2 Social Impact & Community Benefits

The Health Board are committed to achieving Welsh Government Community benefit targets to ensure that this investment benefits both in terms of targeted recruitment and training, SME supplier development, educational and community initiatives and social enterprise development.

The SCAPE framework already has a number of social impact performance indicators which the contractors are measured against under the SCAPE framework. The community benefits and social impact achieved to date on Framework 2 are detailed in **Appendix L**.

PTHB has also procured the Llandrindod Wells reconfiguration scheme through the SCAPE framework and the social value report undertaken to demonstrate the benefits already realised on the first phase of this scheme are attached in **Appendix M**.

On this scheme PTHB have worked closely with Kier to develop a set of targets which will be monitored monthly at Project Board. These targets are outlined below:

Figure 12: Machynlleth Community Benefit Targets

In addition to these targets the scheme also includes a number of other initiatives to maximise the benefit to the local community. These are outlined below:

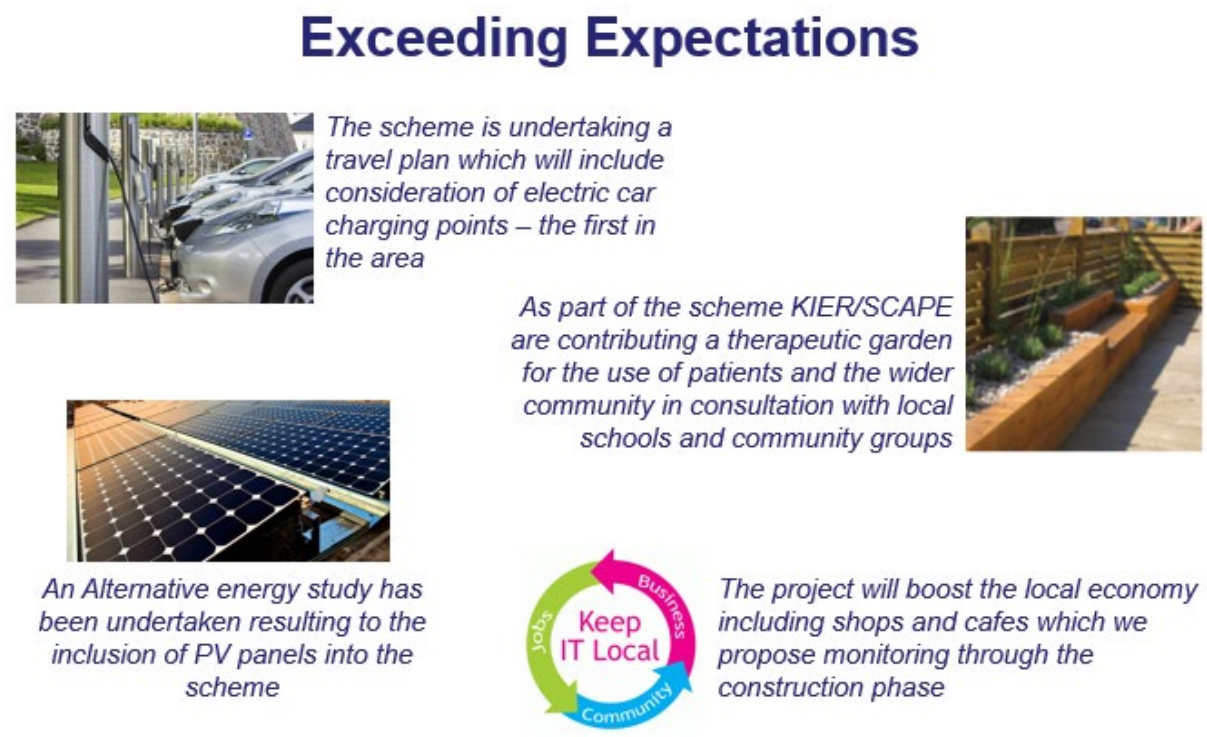


Figure 13: Machynlleth Additional Benefit Targets

5.3 Required Services

The following appointments have been agreed:

Service	Appointment
Construction Contractor	Kier Group
Design Team Lead	Boyes Rees Architects
Architect	Boyes Rees Architects
Structural & Civil Engineering	Bingham Hall Partnership Ltd
Mechanical & Electrical Engineering	Holloway Partnership
Project Manager	Pick Everard
Cost Advisor	White Young Green

Table 52: PTHB Appointments

5.3.1 Service Streams and Required Outputs

The broad scope of this project is outlined in Section 3.3.5. In support of this FBC, a Design Annexe document has been produced (**Appendix F**) which captures the scope and content of the potential deal and includes:

- the scope of the procurement
- the required service streams
- the specification of required outputs
- Design information including 'signed off' 1:200 & 1:50 plans, Schedule of accommodation and derogation schedule
- the requirements to be met, including: essential outputs, phases, performance measures, and quality attributes

5.4 Contractual Arrangements

The form of contract will be the NEC 3 Option A that is utilised within the SCAPE Framework. The contractual relationships between the various parties are subject to the rules and regulations of the framework.

5.4.1 Use of Contract

A suite of NEC3 proforma documents have been compiled for use on the project. The use of these proforma documents as standard contract documents will provide consistency and continuity. The form of contract for the proposed appointments will be as follows:

- **Consultants: Professional Services Contract**. The multi-disciplinary design Consultants were appointed by Kier, through the SCAPE framework, following a mini competition. This was scored on the bases of 100% cost, however, consultants were selected for the mini competition based on previous experience of similar projects and their ability to work within the timeframe set out.
- **Construction: Engineering and Construction Contract**. PTHB has engaged Kier via the SCAPE Framework for the completion of the project at BDCH
- **Consultants: SCAPE Perfect Circle Framework:** PTHB have appointed Pick Everard as Project Managers via the BECS Framework (Built Environment Consultancy Services)
- **Consultants: The National Procurement Service (NPS):** White Young Green have been appointed as cost advisors via mini competition through this Sell to Wales initiative

5.4.2 Key Contractual Issues

The contract administration of Option A contracts is relatively straightforward. The Contractor is paid for completed activities shown in the activity schedule at the prices that are tendered. The only scope to change the prices is if one of the stated compensation events arise and the Project Manager has agreed the compensation event claimed is valid.

Disputes will be resolved by reference to adjudication (a statutory right by virtue of the Housing Grants, Construction and Regeneration Act) and/or by reference to the tribunal indicated in the Contract Data. That could be either arbitration or litigation whichever is chosen.

5.4.2.1 Option Selection

It is important to recognise that no procurement route offers a solution to all issues: it is always a compromise. All procurement routes have advantages and disadvantages. The key issue is that PTHB is aware of these and have made an informed decision. The pros and cons of Options A and C are summarised below:

Key considerations for the Authority	Option A	Option C
Is the scope of works fully defined?	✓	✗
Do you anticipate significant changes to the design or delivery programme during construction?	✗	✓
Do you require 'fixed price' cost certainty?	✓	✗
Do you wish to transfer all project risks to us?	✓	✗
Are you comfortable with sharing project risk ownership?	✗	✓
Is there opportunity to collaborate to drive down project costs and generate savings during construction?	✗	✓
Do you have limited resources to administer a target price contract?	✓	✗

Table 53: Contract Options Comparison

Based on the information above it has been agreed that a fixed price Design and Build Form of Contract is appropriate and suited for the Bro Ddyfi Community Hospital Health and Well-being Project for the following reasons:

- The design is well advanced
- The sub-contract packages have been thoroughly Market Tested
- The Risk Management Process is well developed and clearly illustrates Risk ownership
- Appropriate actions, levels of time and money have and will continue to be agreed and actioned for the duration of the pre-construction and post construction process.

Of all of the NEC3 ECC options available, Option A places the greater proportion of risk of delivery with the Contractor.

The management of any changes that affect the programme or budget must be carefully managed if we are to achieve a successful project.

5.4.2.2 Change Control

Change control is an important and intrinsic part of the project management process. A robust change control process is a key component to the successful delivery of a project and assists in ensuring the project's alignment with business needs. The process ensures that any changes proposed beyond a defined baseline, (such as FBC Approval), are adequately defined, recorded, reviewed and approved or rejected. Approved changes are then authorised by the Project Manager via an instruction under the contract. Under this project the change control

process will be run in line with the PTHB Capital Procedures, key individuals, Project Board's Delegated Financial Authorities and the requirements of the NEC Form of Contract.

The control of change includes the identification and assessment of the impact of potential changes, their importance, cost and programme implications so that a judgemental decision by Management can be made on whether to include them or not. The intention of implementing this procedure is to ensure that change control provides the necessary project control.

Within the change control process there are two main documents used:

- **Change Log**: This document is set up and maintained by the Project Manager and provides a record of all changes and decisions made.
- **Change Control Form/Request for Change**: This will cover all changes to specification, scope or any other issues that impact on the current delivery plan of the project.

Within the change control process there are five stages:

1. Proposing a Change – Any individual involved with the project can complete and submit a Change Control Form to the Project Manager. The form should detail a description of the proposed change and expected benefit or other reasons for the proposed change. The Project Manager will then add the change to the Change Log.
2. Summary of Impact – This process will be carried out by the Project Manager, who has the responsibility to consider the overall effect on the project whilst covering the following items:
    - Statutory/Legal, mandatory, regulatory or other unquantifiable reason for the change
    - Quantifiable cost benefits and savings
    - Estimated cost of the change (with assistance from the cost consultant/contractor)
    - Impact on project timescales
    - Impact on other business activities or projects within the vicinity
    - Resource requirements
    - New issues and risks and log appropriately
3. Decision – This stage requires the Project Manager to present the changes within a given period to the Project Board. Should the timescales within the NEC contract require a decision be made outside of the normal Project Board meetings schedule, the Senior Responsible Owner (SRO), Project Director (PD) or PTHB Project Manager have the authority to sign off a change subject to the said changes being within their delegated financial authorities respectively, the change must then be notified to the next Project Board meeting. In the event that the change is/are in excess of their delegated financial authorities then an additional meeting of the Project Board may be called to discuss the specific change. The Project Board will review all the available information and the following decision categories will be used:

- Accept
- Conditional Accept - with caveats/comments/special conditions
- Reject
- Defer – change not approved but left open for further consideration at a later date

4. Implementing the Change – If the proposed change is approved then the Project Manager will either issue an Early Warning Notice to the contractor to advise of the change under the NEC Contract and/or then formally instruct the contractor under the terms of the contract. The change will then be planned and incorporated in to the project with all relevant parties updating project documentation as required. Dependant on the nature of the proposed change there may be a requirement to have a regression test plan in case the change needs to be backed out off – the Project Manager should advise PTHB if a plan is required. The change should on completion of the project form part of the post project evaluation.
5. Closing a Change – Once rejected or instructed and implemented the Project Manager will close the change out on the Change Log. Implemented change must be communicated to all appropriate parties by the Project Manager. This is to be done by implementing the procedure for the instruction of variations relevant to that stage of the project. This would normally be undertaken via the issue of a Project Managers Communication (PMC) or Compensation Event Instruction (CEI).

5.4.2.3 Value Management

Throughout the process, the entire project team have taken a collaborative and proactive approach to value management, ensuring that the design response is as efficient and cost effective as possible. Scrutinising design elements throughout the process reduces the requirement and implications of Value Engineering exercises at a later stage.

For example, when it became apparent that the single storey extension needed to be demolished and a new two storey building constructed in lieu of extending the existing, the Architect produced three different designs. Each design was costed and the advantages and disadvantages of each considered. This resulted in a cost increase but the design chosen was not the most expensive. The phasing of the works has also been carefully reviewed and planned resulting in the reduction of the construction programme from a proposed 72 weeks to the current proposal of 56 weeks. This provided an indicative cost reduction to the scheme of £100,000. Other value management has focused on car parking needs (a key requirement of the relocation of the GP service), a review of the scope of works to Palliative Care, the funding of the Therapeutic Garden (Kier have secured external funding), dental suite scope of works and the extent and type of window replacement.

Tendered costs were received in January, and were of the order where no substantial value management was required. The team will, however, continue to monitor and adjust costs throughout the remainder of the process and value management workshops will be held as required.

5.4.2.4 Equipment Procurement

All goods and services purchased within NHS Wales must be requested using the Oracle iprocurement system. iprocurement assists in obtaining value for money through the identification of preferred contacts via NHS and wider public sector framework contracts.

Group 1 items are tendered through the SCAPE framework.

5.4.3 Contract Duration

The proposed contract length for the project is 12 months from Full Business Case approval to handover (timescales are provided in Section 5.4.3.1 below). Partnership between the Contractor and PTHB will continue twelve months after project completion and handover, ensuring any defects have been made good.

5.4.3.1 Implementation Timescales

The project programme is attached at **Appendix N**. A schedule of key dates is summarised below:

Milestones	Key Dates
Submission of Outline Business Case	Oct 2017
WG Approval of Outline Business Case	March 2018
Submission of Full Business Case	May 2018
WG Approval of Full Business Case	July 2018
Commencement of Construction Works	Sept 2018
Completion of Construction Works	Sept 2019
Intense clean and PTHB FF&E etc	Oct 2019
Building Open for use	Oct 2019

Table 54: Schedule of Key Dates

5.4.4 Payment Mechanisms

NEC3 ECC Option A is a priced contract with activity schedule. It is a lump sum contract in which the total contract sum is broken down in the activity schedule into a number of smaller sums, which are termed the Prices. The total of the Prices in the activity schedule is the contract sum.

The Contractor is paid for work at the tendered prices and carries all risks other than those which are expressly stated in the contract to be the Employer's risks or which are the result of defined compensation events.

The activity schedule sets the contract sum by reference to activities that are to be completed rather than by reference to a bill of quantities. Accordingly, it is the Contractor who carries the risk of changes to quantities during the work.

The Contractor is paid at monthly intervals. The interim payment is termed The Price for Work Done to Date (PWDD). In Option A, the PWDD is defined as the total of the Prices for:

- each group of completed activities
- each completed activity which is not in a group

Due to payments being linked to completed activities, it is generally the case that the Final Account calculations on Option A contracts are concluded relatively soon following completion of the Works.

5.4.5 Agreed Risk Transfer

The general principle is that risk is passed to 'the party best able to manage them', subject to value for money. A detailed risk register is attached (**Appendix G**). The table below highlights the agreed apportion of service risks in the design, build and operational phases:

	Risk Category	Risk Allocation		
		Client (PTHB)	Contractor (Kier)	Shared
1	Design Risk		✓	
2	Construction and development risk		✓	
3	Transition and implementation risk		✓	
4	Availability and performance risk		✓	
5	Operating risk	✓		
6	Variability of revenue risks	✓		
7	Termination risks	✓		
8	Technology and obsolescence risks		✓	
9	Control risks	✓		
10	Residual value risks	✓		
11	Financing risks	✓		
12	Legislative risks			✓
13	Other project risks			✓

Table 55: Risk Transfer Matrix

5.5 Personnel Implications (including TUPE)

Transfer of Undertakings (Protection of Employment) Regulations 1981 (TUPE) will not apply, directly or indirectly to this project proposal. Generally, the anticipated increase in staff resource to support enhanced activity will be in accordance with Health Board Workforce guidance.

5.6 Accountancy Treatment

The accountancy treatment for the FBC is that it is enhancing a fixed asset currently held within PTHB's balance sheet. Upon completion of the works, the asset will be revalued by the District Valuer when brought into use. Upon revaluation, it is anticipated that there will be an impairment of approximately 25% of value that will be subject to an Annually Managed Expenditure Impairment to be funded by Welsh Government.

As the asset will have been valued by an external professional, the life expectancy will be updated to reflect a revised life expectancy which, for the purposes of this business case, is expected to be 30 years. This new assessed life expectancy will define the depreciation adjustment going forward for future years.

6 The Financial Case

6.1 Introduction

This section sets out the financial case for the capital investment being requested, including an assessment of revenue affordability regarding the preferred option.

The revenue costs are based on full year costs for the 2016/17 financial year. This business case assumes that the source of capital funding will be via a Capital Resource Limit allocation from the Welsh Government. Impairment funding will be required once the scheme is completed, following revaluation of the assets.

6.2 Capital Cost Appraisal

An economic appraisal of the identified options has been undertaken to assess the overall value for money to the NHS. The capital and annual revenue costs of each option have been quantified and compared. Cash flows have also been compared over an indicative thirty-year period. A summary of the capital and revenue costs of the shortlisted options is shown below.

6.2.1 Capital Cost Comparison

A summary of the capital cost comparisons for each option are shown below and full Capital cost forms are attached at **Appendix O**. This appendix also contains a comprehensive breakdown of costs. The capital costs have been prepared by PTHB advisors and include VAT at 20% and contingency which has been based on a quantified risk assessment.

Options		£'000
1	Do Nothing	0
2	Do Minimum – Maintain the current services but deal with fundamental building fabric and infrastructure issues	4,269
3	Intermediate – Enhance the scope to include Machynlleth Medical Practice, develop internal reconfiguration to provide GMS accommodation	6,257
4	Do Maximum – Further enhance the scope to include rooms which are currently part of a planned extension to Glantwymyn Health Centre.	7,961

Table 56: Capital Cost Comparison

6.2.2 Capital Costs

This section describes the capital costs associated with the preferred option.

The capital costs of the development will be funded by the Welsh Government (WG) and are summarised in the table below. They have been prepared by cost advisors on behalf of PTHB.

Capital Costs of Preferred Option	**OBC**		**FBC**	
	Cost (excluding VAT) **£'000**	**Cost** (Including VAT) **£'000**	**Cost** (excluding VAT) **£'000**	**Cost** (Including VAT) **£'000**
Building & External Works	4,762	5,714	4,805	5,765
Non-works	20	24	0	0
Fees	840	1,008	958	1150
Equipment	275	330	280	336
Contingency	770	924	680	816
VAT Reclaim	-	(167)	-	(106)
Total	**6,667**	**7,833**	**6,723**	**7,961**

Table 57: Capital Costs of Preferred Option

6.2.2.1 Ratification of Costs OBC to FBC

Photovoltaic panels have been added to the scheme since the submission of the OBC. A study was commissioned to review what forms of alternative energy could be used and the benefits of each. The photovoltaic panels were shown to have a pay-back of three years and were therefore deemed to be value for money given the reduced revenue costs which would result. The inclusion of these panels has added £10,000 to the costs.

A structural survey of the single storey extension was completed since the OBC was submitted. The original design was to extend this building vertically using a timber frame building. The structural survey however concluded that major strengthening works would be required to the existing building in order for it to withstand the load of the extension as well as underpinning the foundations. It was therefore decided that the existing building would be demolished and a new two storey extension built in its place. This design development has added £90,000 to the costs of the project, however, the end product will be a brand new building with modern design touches and superior heat and sound insulation qualities which will provide an enhanced working environment for staff.

6.2.2.2 Funding Profile

The phasing of the planned capital costs and indicative funding profile is identified below. More details on the proposed phasing is contained within the Commercial Case.

Phasing	Year 0 2016/17 £'000	Year 1 2017/18 £'000	Year 2 2018/19 £'000	Year 3 2019/20 £'000	Total £'000
	383	438	4,515	2,625	**7,961**

Table 58: Capital Cost Phasing

6.2.3 Value Added Tax (VAT)

VAT is calculated at 20% and the PTHB VAT advisor will be asked to formally assess the position on recoverable VAT in due course. For the purpose of this business case we are assuming that 20% of the VAT will be fully recoverable on fees.

6.2.4 Impairment

The redevelopment once complete will be independently valued by the District Valuer. This will result in a valuation which will be approximately 25% lower than the total cost of the scheme. This will result in a £1.990m non-recurrent impairment due to change in asset value (as per International Accounting Standards 36), this AME (Annually Managed Expenditure) impairment is assumed to be funded by WG based on actuals.

6.2.5 Impact on the Statement of Financial Position

The impact of the development on PTHB's Statement of Financial Position, based on the preferred option, will be an increase in the fixed asset valuation of circa **£5.971m**. This is calculated by the capital project costs of **£7,961,421** less the estimated impairment of **£1.990M.**

6.3 Revenue Affordability

This section describes the revenue savings and costs associated with the preferred option, and assesses the affordability implications of the project.

6.3.1 Revenue Savings

The fundamental reduction associated with the scheme is that of backlog maintenance associated with the age and condition of the buildings and services which are prone to failure and the savings associated with relocating Primary Care services.

As part of the improvements, Holloways partnership (M&E consultants) have developed a paper which focuses on the potential revenue savings associated with utilities and any alternative energy opportunities associated with the scheme (See **Appendix P**). The study demonstrates that in dealing with fabric and services issues the project

could reduce heating costs by **47.9%** representing an estimated annual cost saving of **£14,840**. Alternative energy opportunities include PV panels to a proportion of the roof which for a £10,000 investment would have a 3 year pay back period.

The room rental opportunities for the flexible spaces represents a potential income of **£32.5k** based on 5 number rooms booked for 3 sessions per week at £42 per session (with remaining session capacity for internal and charitable/non-charged use). The cost for this element of the work is approximately **£170,000** (inclusive of fees and contingency).

The current catering facilities and equipment are in need of replacement. The redevelopment has therefore identified the opportunity to improve facilities and extend the services which will now offer a range of refreshments and meals not only to staff and inpatients but also to patients and the wider community. The benefits associated with the development of the café area includes; internet access (access to health information, online appointment booking etc.), opportunities for healthy eating demonstrations and education, a facility for local meetings/events. Revenue projections suggest an increase in revenue of **£10,000** per annum however this is potentially higher when considering the projected increase in visitors of an estimated **108** per day.

6.3.2 Capital Charges

Capital Charges now only consist of Depreciation. In line with similar developments, it is assumed that the District Valuer will assess the revised asset life to be approximately 30 years. This will increase the capital charges for the site by £196k per annum. It is assumed that the recurrent increase in capital charges will be funded by Welsh Government.

6.4 Financial Appraisal

An analysis of the capital and revenue costs and savings identified is provided below, which also demonstrates the affordability and pay-back of the preferred option.

Preferred Option	Year 0 2016/17 £'000	Year 1 2017/18 £'000	Year 2 2018/19 £'000	Year 3 2019/20 £'000	Year 4 2021/22 £'000	Year 5+ 2022+ £'000	Total £'000
Capital Costs:	383	438	4,515	2,625			**7,961**
Revenue Costs:							
Recurrent				199	199	199	597
Non-Recurrent				*1,990*			*1,990*
Total	**0**	**0**	**0**	**2,189**	**199**	**199**	**2,587**

Funded by:							
WG Capital	383	438	4,515	2,625			**7,961**
WG Funding - Depreciation		0	0	199	199	199	**597**
WG Funding - Impairment		0	0	1,990	0	0	**1,990**
Total	**0**	**0**	**0**	**2,189**	**199**	**199**	**2,587**

Table 59: Summary of financial appraisals

6.4.1 Impact on the Statement of Comprehensive Net Expenditure

It is anticipated there will be a marginal reduction in costs, and increased income from additional catering facilities and room rental, as a result of the development. It is assumed that the recurrent increase in capital charges will be funded by Welsh Government.

6.5 Assessing Affordability

The following is confirmed on assessment of the costs contained within this business case:

- The balance sheet has been correctly organised and properly accounts for current assets, current liabilities, long-term liabilities and capital
- The balance sheet remains in a healthy state following the bringing into use of the asset
- The cash flow of PTHB will remain sound
- The necessary allowance has been made for risks

6.5.1 Overall Affordability

With the approval of this business case it is expected that the capital costs will be funded through the all Wales Capital Programme. The additional non recurrent impairment charge of £1.990m and recurrent capital charges of £0.199m are assumed to be funded by Welsh Government.

6.6 Assumptions that underpin affordability

The working assumptions in calculating the above costs are as follows:-

- The estimated impairment as a result of the development due to a change in asset value on the bringing into use of the redevelopment will to be funded by WG on an actual basis;
- The estimated capital charges as a result of the development due to a change in asset value on the bringing into use of the redevelopment will to be funded by WG on an actual basis;
- One off costs associated with disruption as a result of the development have not been factored in. It is assumed these will be mitigated by PTHB.

7 The Management Case

7.1 Introduction

This section of the FBC addresses in detail how the scheme will be delivered successfully. The project has adopted a methodology that is based on standards of best practice and quality management principles

7.2 Project Management Arrangements

The project will be managed in accordance with PRINCE 2 methodology.

7.2.1 Project Structure

The development of a Project Board has been convened for the duration of the project, attended by the following:

Board Member	Position
Hayley Thomas	Senior Responsible Owner, Director of Planning and Performance PTHB
Wayne Tannahill	Project Director, Assistant Director of Estates and Properties PTHB
Louise Morris	Project Manager, Senior Capital Programme Manager PTHB
Mike Petersen	External Project Manager Pick Everard
Tim Dodds	Operational Lead, Kier Services
Jayne Lawrence	Head of Primary Care PTHB
Andrew Powell	Assistant Director of Primary Care PTHB
Amanda Edwards	General Manager North Locality PTHB
Anthony Goodman	Business Manager North Locality PTHB
Greg Chambers	Locality Finance Performance Manager North Locality PTHB
Merill Withanage	Capital Finance PTHB
Dr Sarah Bradbury	General Practice Representative

Table 60: PTHB Project Board Members

7.2.2 Project Reporting Structure

The project delivery organisation structure is detailed below. Pick Everard, the project manager for PTHB, is responsible for managing the contractor and reporting progress of the project and the project programme. The contractor maintains and updates the programme on a regular basis and includes this within progress reports made available for monthly Progress Meetings.

The project manager will also manage, update and distribute all necessary information such as queries, instructions and organisational structure.

The reporting organisation and the reporting structure for the project are outlined in the following diagrams:

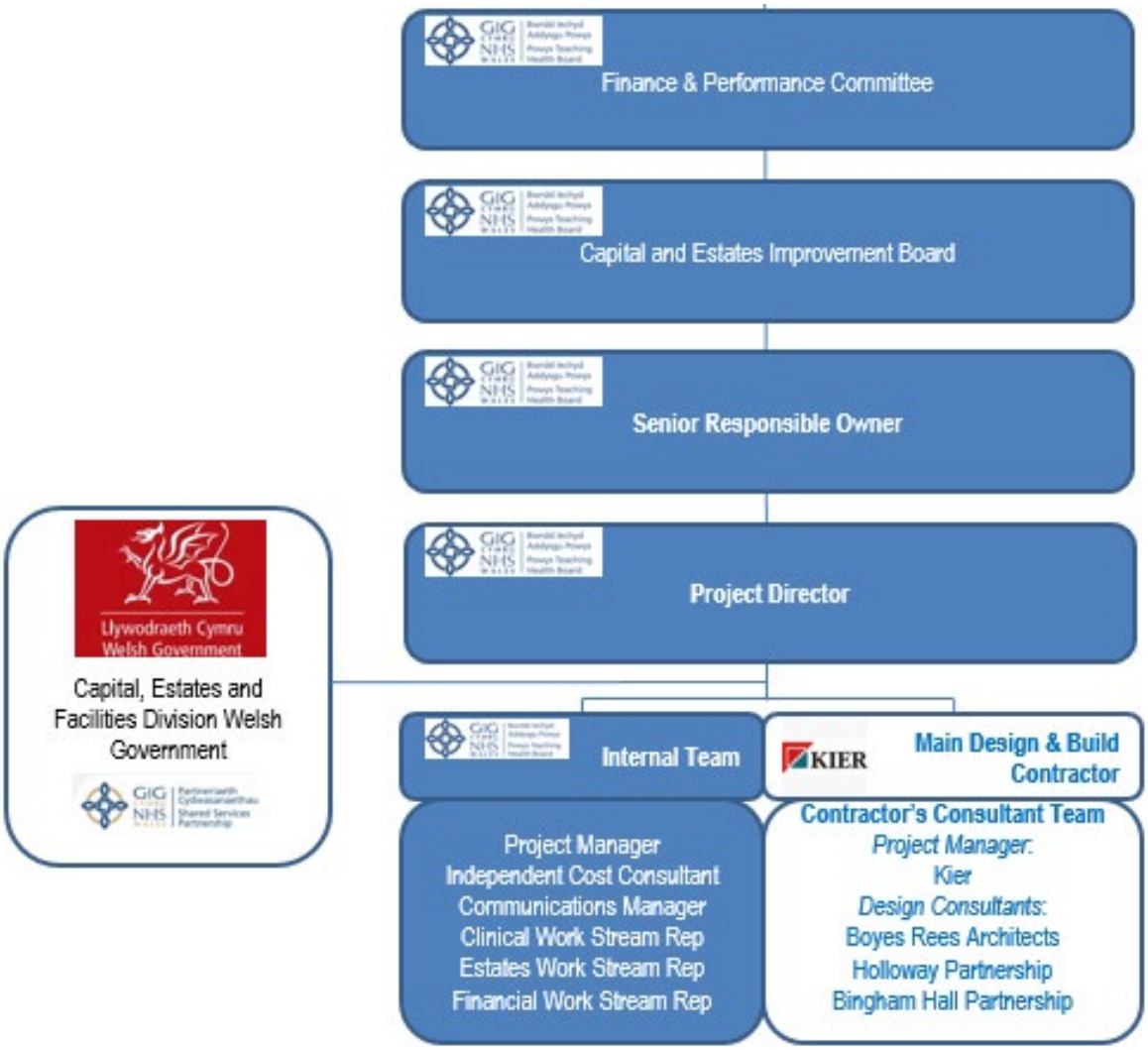


Figure 14: Project Delivery Organisation Structure

7.2.2.1 Pre-Construction & Construction

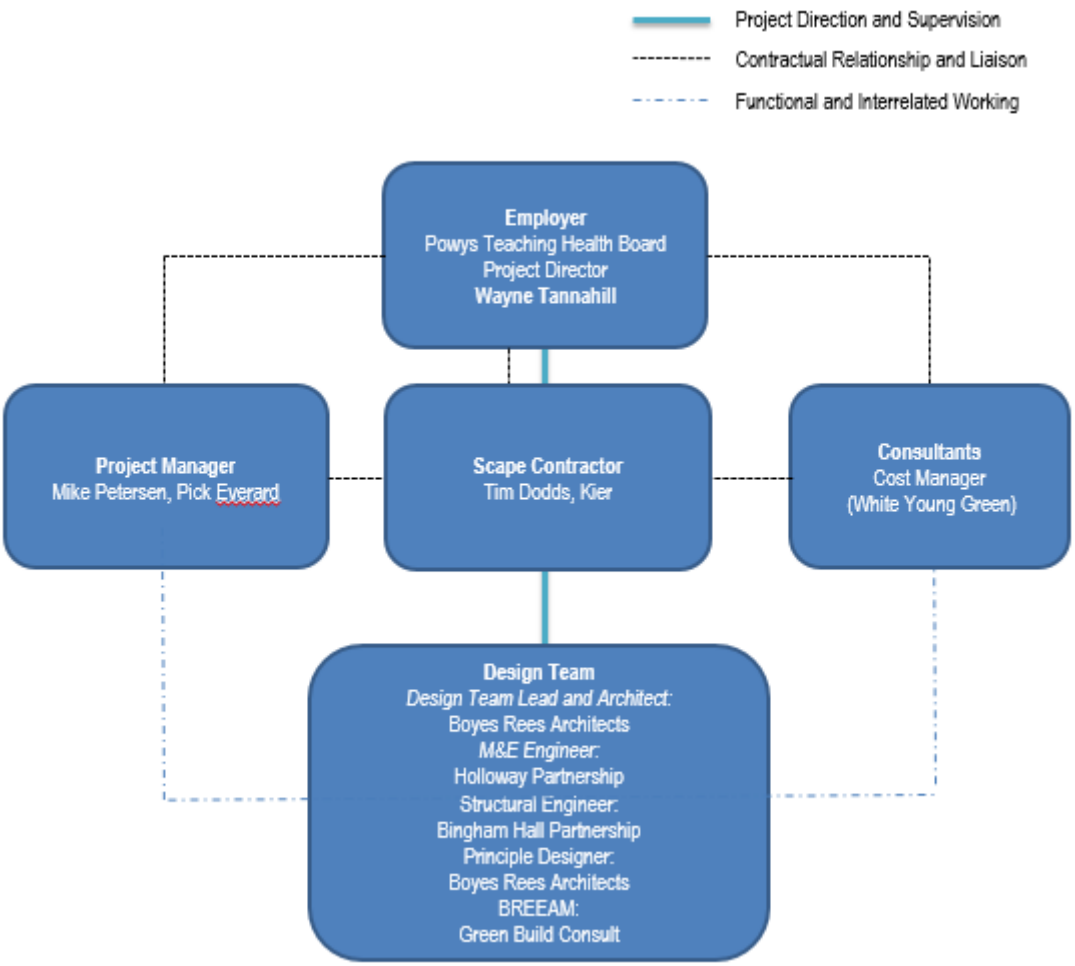


Figure 15: Organisation Structure

7.2.3 Project Roles and Responsibilities

7.2.3.1 Project Board

The Project Board's key accountabilities are to:

- Provide strategic leadership and direction
- Provide support and facilitate change
- Facilitate training and development
- Review performance (KPI, financial, etc.) and relationships
- Help to avoid but, if necessary, resolve disputes

- Specify and implement Project Governance criteria
- Approve Project priorities and plans
- Ensure that the Project Budget is managed and controlled and remains within agreed delegated limits
- Monitor the Programme to ensure it remains on course to deliver expected benefits within agreed timescales
- Manage Strategic Risks and define criteria for reporting project status, escalation of risks and issues
- Approve and oversee the strategy for community consultation, communications, publicity and wider stakeholder relationships
- Approve all funding submissions and ensure that funding applications are prepared in accordance with recognised best practice

PTHB Capital Procedures are relevant to all Powys staff involved in the planning, procurement and delivery of projects or equipment with a value over £5,000.00. Delegated limits, key roles and responsibilities are detailed in PTHB Capital Policies and Procedures.

7.2.3.2 Senior Responsible Owner

The Senior Responsible Owner (SRO) is the Director of Planning and Performance, whose role is to:

- to agree the business case and budget for the project, ensuring it meets the business objectives, for approval by the Investment Decision Maker
- to establish an appropriate project organisation structure and communication processes
- to recruit a Project Director and agree Terms of Reference for the Project Board
- to ensure that a brief is developed which clearly defines the product and is agreed by the users
- to establish a progress and reporting procedure to determine the performance of the project
- to approve major changes to the scope of the project and the approach to delivering the product, including the role of arbiter on any disputes which occur on the client side
- to alert the Investment Decision Maker with a recommendation on action to take should there be a trend toward cost escalation or delay, or if the objectives of the project change radically
- to ensure adequate resources are made available to the Project Director for the delivery of the project
- to be seen to demonstrate commitment to the project, clearly promoting it and the benefits that it will bring

7.2.4 Project Plan

7.2.4.1 Programme and Programming

A copy of the Master Programme is included within **Appendix N**. As well as the key interfaces between the work packages, the programme will identify the key activities, dates and milestones necessary for the successful delivery

of the project. Kier will maintain a master programme from which team members will develop and co-ordinate their own detailed programmes as necessary.

7.2.4.2 Value Engineering

A series of Value Engineering workshops and meetings have taken place to ensure that the preferred option represents value for money. These meetings will continue to be arranged by the Project Manager throughout construction phase as required.

7.2.4.3 Performance Management Plan

Key Performance Indicators have been developed to ensure the project objectives and critical success factors are measured, monitored and delivered.

7.2.4.4 Project Communication

The Project Delivery Structure, will form the basis of the communication strategy. This structure will represent the flow of communication and information between the different stakeholder groups. Pick Everard will manage the process to ensure that it functions effectively. All formal communication and information between the Employer and the Contractor must flow through Pick Everard.

7.2.4.5 Project Meetings

A meetings schedule is managed by Pick Everard providing details of required meetings. This schedule is prepared to ensure the project team is aware of all meetings that are to be undertaken, all actions are executed prior to the meeting and any preparatory work (for reports, etc.) is complete prior to the relevant meetings or on a pre-arranged date.

Pick Everard will be responsible for maintaining the meetings schedule.

An agenda for each meeting and workshop has been issued by Pick Everard. The Project Manager chairs all meetings or delegates the responsibility to an appropriately skilled person. A nominated person dedicated to capture the meeting notes is identified prior to the meeting taking place to avoid confusion at the commencement of the meeting.

The following meeting types have been undertaken on a regular basis and will continue throughout the construction phase:

7.2.4.5.1 Project Board Meetings

The purpose of these meetings is to discuss project related issues (design, programme, cost, contractual matters, health and safety, etc.). Meetings are held on a minimum bi-monthly basis. PTHB capture and compile the meeting notes for circulation to the Project Delivery team.

7.2.4.5.2 Risk Reduction Meetings

These meetings are held to capture and manage/eradicate risk on a regular basis. This process encapsulates the early warning system. The project risk register has been updated after every meeting. Meetings will be convened when and as necessary, Risk will be included as an agenda item in all monthly Project Progress Meetings. The Project Manager captures and compiles the meeting notes for circulation to the Project Delivery team.

7.2.4.5.3 Design Team Meetings

The purpose of these meetings is to discuss design matters in detail. Meetings are held on a monthly basis. The contractor is responsible for ensuring their Lead Designer captures and compiles the meeting notes for circulation to the Project Delivery team.

7.2.4.5.4 Progress Meetings

To be held on site once the construction has started to consider progress against programme, information required etc. Meetings will be on a monthly basis. The Project Manager will capture and compile the meeting notes for circulation to the Project Delivery team.

7.2.4.5.5 Site Co-ordination Meetings

Weekly site co-ordination meetings will be held for the site teams. The Contractor will capture and compile the meeting notes for circulation to the Project Delivery team.

7.2.4.5.6 Monthly Co-ordination Meetings

Monthly site co-ordination meetings attended by senior management. The Contractor will capture and compile the meeting notes for circulation to the Project Delivery team.

7.2.4.6 Actions Tracker (AT)

In order to track outstanding actions from all of the above meetings Pick Everard maintains an 'Action tracker' to capture all action points from all meetings and track the progress of the action points. A traffic light system (GREEN/ AMBER/ RED) is used to assess if actions are complete, due or overdue. This log is a live tool which is formally sent to the project team on a monthly basis, although actions are pro-actively chased on a weekly basis.

7.2.4.7 Reports

Pick Everard co-ordinate the preparation of a monthly report. The monthly report is shared with all members of the project team clearly and concisely detailing progress against the programme and any outstanding issues. In addition a highlight report is also prepared prior to Board meetings focusing on high level progress against the programme and project budget and raising any issues which require a decision at Board level.

Kier also provide a monthly contractors report incorporating progress reports from the all of the design team consultants.

7.2.4.8 Welsh Government Reports

The project director will be responsible for submitting a monthly progress report to welsh government to include:

- Overview of the scheme
  - Background
  - Project Structure
  - Financial performance
  - Benefits
  - Approvals
  - PM report
  - CA report
- Progress and Finance
  - Progress against programme and key milestones
  - Risk (top 5)
  - Decisions required
  - Update on achieving community benefit targets
  - Resource performance to date (and forecast)
  - Resource utilisation profile

7.3 Use of Special Advisers

Special advisers were used as follows:

7.3.1 Ecologist

Due to the location and condition of the existing hospital buildings the site was identified as having a high potential for bat roosts. In September 2016, Opus International Consultants Ltd were appointed to undertake a scoping survey of the site. The survey revealed the presence of bats in a number of locations including some endangered species. As a result of the findings, further surveys in the form of dusk and dawn re-emergence surveys were completed to determine the exact numbers of bats using the building. A report has been issued which identifies the potential impact of the works on the confirmed locations of the bat roosts and whether works will need to take place under a license or a method statement. Some further re-emergence surveys are due to take place in May this year so that current information is used in the licence application. Opus will also be appointed to maintain a watching brief during the works.

Opus International Consultants have also been appointed to produce a Landscape and Habitat management plan as part of the BREEAM process.

- Project Ecologist: Opus International Consultant Ltd
- Ecology Lead: Paul Eastwood (Opus International Consultants Ltd)
- Specialist Consultant: Eric Palmer (Link Ecology)

7.3.2 BREEAM

Due to the funding criteria set by the Welsh Government, Green Build Consult have been appointed by Kier Group plc to oversee and lead the BREEAM process. They will also be appointed to Sustainability Champion for the project. They have currently issued a design stage report which identifies the credits being targeted which would provide an overall rating of "Very Good".

- BREEAM Consultant – Green Build Consult

7.3.3 Acoustics

As part of the BREEAM process and also to ensure appropriate levels of noise control both internally and externally Hunter Acoustics have been appointed to complete various surveys. The findings will be detailed in a report together with recommendations for sound reduction measures to be included as part of the works.

- Acoustic Consultant – Hunter Acoustics

7.3.4 Asbestos

Due to the age and condition of the existing hospital buildings the site was identified as having a high potential for containing asbestos. As part of their appointment Kier Group plc have enlisted specialist advisors to survey the existing building fabric for the presence of asbestos.

- Asbestos Consultant – Lucion Environmental

7.3.5 Travel Plan

Due to the integration of Primary Care onto the Hospital site and the associated pressures this would add to the existing parking facilities, Mark baker Consulting were appointed as travel consultant. They carried out a traffic count at the hospital and the two medical centres to ascertain the most likely increase in the car parking at the Hospital. They were also appointed to produce a travel plan as part of the BREEAM process and to consider the future use of electric car charging points at the hospital.

- Traffic Consultant – Mark Baker Consulting

7.3.6 Alternative energy

To ensure the Hospital was sufficiently future proofed, Holloway Partnership were commissioned to evaluate the cost effectiveness of a number of alternative energy sources. They provided installation costs and pay back details on a number of devices which could be utilised. Following the report the Health board have decided to incorporate solar panels into the scheme.

- Alternative Energy consultant – Holloway Partnership

7.3.7 Temporary Works

Due to the age and condition of the existing hospital buildings and the requirement of the works to remove the internal supporting walls whilst maintaining the external structure of the building Bingham Hall have been appointed as temporary works consultant. They will produce all the temporary works designs to ensure the works can be carried out safely and without compromising the structural integrity of the building. They will also produce a construction phasing to accompany the temporary works design.

- Temporary Works Consultant – Bingham Hall Partnership

7.4 Arrangements for Change Management

PTHB recognises the importance of effective change management and that it requires thoughtful planning and sensitive implementation, and above all, consultation with, and involvement of, the people affected by the changes. The reconfiguration of BDCH represents a number of large organisational changes in order to maximise the clinical efficiency of the hospital. These include:

- The amalgamation of Primary Care services into a single location
- The integration of Primary and Social Care into a community hospital setting
- Supporting integration with community and third sector services
- Increasing capacity
- Changing/modernising working practices
- The use of new and improved technology systems

The staff affected by the changes have been consulted with and understand the need for change, have contributed to how the change will be managed and have been involved in the planning and implementation of the change.

7.4.1 Leadership

Clinical leadership is a crucial ingredient for successful change programmes and has been apparent at all stages. It is invaluable both for the decent design of interventions and for the credibility of change programmes, so that clinicians will embrace the change instead of reacting against it.

BDCH has a clinical lead who has been involved in the project from its inception, attending all meetings in order to engage with PTHB and key stakeholders.

7.4.2 Stakeholder Engagement

A project launch workshop was held at which the design team presented the process to the stakeholders ensuring that the vision for the project was clear and there was a 'shared vision'. It also set out the number of groups required, roles and responsibilities and schedule of user group meetings.

Departmental "Champions" were identified who attended user group meetings. They were a voice for their department, ensuring views were heard and reporting back to the department regarding the progress of the project.

PTHB has worked closely with the design team to ensure that changes in service provision and ways of working are communicated to the building users/stakeholders and that high level policy decisions such as central staff facilities or open plan offices were discussed as early as possible. Workshops were arranged to discuss concerns or conflicting stakeholder requirements and arrange visits to best practice examples.

7.4.3 Communications

The Communications Sub Group will have the responsibility for ensuring that there is an open, transparent two way communication system in place between stakeholders and those directly involved in the Bro Ddyfi Community Hospital Health and Well-being Project.

7.4.3.1 Objectives

- Promote, support and develop the Project through the proactive communication of key messages as the project progresses with key stakeholders using a variety of communication methods. This includes the production of ongoing regular briefing and information updates to all stakeholders and the production of a specific briefing following each Project Board;
- Prepare regular press releases regarding progress with the project;
- Ensure that the members of the Sub Group report to their own teams and individual organisations regarding progress with the project;
- Act as a point of contact for stakeholders to raise questions or concerns;
- Advise the Project Board of any concerns regarding communications and of corrective actions that may need to be taken.

7.4.3.2 Membership

The Communications Sub Group team shall be a multi-team/agency group, chaired by a member of staff from PTHB North Locality. Membership of the Communications Sub Group will include representatives from:

- Machynlleth Hospital Patients Forum

- Machynlleth Hospital League of Friends
- Community Health Council
- Powys Association of Voluntary Organisations (including individual local voluntary organisations)
- Powys County Council
- Town Council
- GP practice manager(s)
- Project Manager
- North Locality Management Team
- Women & Children's Services
- Mental Health Services
- Patient Services
- Nursing Team (Twymyn Ward)
- Therapy Services
- Staff Side
- Primary Care

Meetings will be deemed quorate when at least a third (5 in number) of the membership of the Sub Group is present, including the Chair or Vice Chair.

7.4.3.3 Principles

The Communications Sub Group will meet on the same day as the Project Board meeting and more frequently if required during the course of the project to ensure that clear and unambiguous messages about the project are issued.

7.4.4 Decant Sub Group

The Decant sub group has been set up to ensure that suitable decant arrangements are in place to minimise disruption to service delivery during the construction phase. Kier have provided a phasing presentation which will facilitate discussions. Membership of the group includes Project Managers and senior departmental leads as well as representatives from facilities, catering and IT. The group are also responsible for examining the equipment requirements established during the 1:50 process. Agreed equipment lists will be scrutinised to establish which items (if any) can be transferred ensuring that value for money is maintained.

7.4.5 Staff Training and Transition

A communication work stream has been set up, reporting to the Project Board, with a remit to update staff affected and the wider hospital community in relation to the development and progress of the scheme. Affected Services/departments have been offered reference site visits. Similarly staff and stakeholders in the hospital will

be given opportunities to view the build process as it develops and will receive training as part of the Project Handover package on the use of specialist equipment. Estates maintenance staff will receive training on the building systems as part of the normal project handover protocols. Induction sessions will be set up on a departmental basis for staff transitioning into new areas as part of the project phasing.

The project has followed 'Soft Landings', the best practice cradle-to-occupation process for the graduated handover of a new or refurbished building, where a period of professional aftercare by the project team is planned for at project inception and carried out post-completion.

7.5 Arrangements for Benefits Realisation

The strategy, framework and plan for dealing with the management and delivery of benefits has been captured in the benefits realisation plan (**Appendix Q**). Benefits Realisation Plan states the benefits of the project, the category of each benefit (in economic terms) how they will be measured and quantified, and who is responsible for their realisation.

The benefits are as outlined in section 3.3.5 and have been identified using Green Book Guidance as follows:

Type	Description
Quantitative (or Quantifiable)	Measureable; for example, £s or numbers of transactions
Cash Releasing	These are financial benefits, for example, avoided spend, reduced cost
Non-Cash Releasing	These are economic benefits, for example, opportunity cost of staff time, etc
Qualitative (or Non-Quantifiable)	Non-measurable, for example, quality improvements such as patient well-being, improved morale, etc

Table 61: Benefit Types

This document focuses on the key benefits which the project is intended to deliver, rather than providing a comprehensive list of all benefits. This plan is a management tool which addresses the specific benefits as a result of the development. An action plan will be developed to deliver the benefits, the results of which will be validated by the Project Board.

As outlined in Welsh Government guidance an evaluation will be undertaken to review and evaluate the success of the project against its original objectives and success criteria. The achievement of these benefits will form the basis of that review. A more in-depth post project evaluation will be carried out 4-6 months after the new facility has been commissioned, and will cover:

- the overall success factors of the project in terms of time and cost
- extent to which the design meets the users' needs
- if the benefits described in the Business Case have been delivered

7.6 Arrangements for Risk Management

The strategy, framework and plan for dealing with the management of risk are as follows:

- Regular Risk workshops have taken place involving key members of the project, design and contractor teams – ensuring early identification of risks and thus reduce their potential impact to an absolute minimum. Benefits of regular risk workshops include:
    - The skill and decision power of the workshop participants is optimised in identifying, analysing and managing project risks
    - The commitment of the key stakeholders to the workshop decisions is secured
    - Project decisions are made in a timely manner
- Risks have been graded appropriately according to probability and impact. The matrix of probability and impact enables the risks to be prioritised in terms of their severity.
- A Risk Register has been developed and managed by the Project Delivery Team and verified by the Project Board. It provides a systematic and continued process consisting of identification, assessment, monitoring and response to risk in a controlled framework
- Risks have been allocated to the party most able to carry the risk

A copy of the project risk register is attached at **Appendix G.**

This sets out who is responsible for the management of risks and the required counter measures.

7.7 Arrangements for Post Project Evaluation

7.7.1 Commissioning and Completion

A commissioning/witnessing/inspection plan is to be agreed between the Contractor, Project Manager and Supervisor for formal acceptance of completed construction elements at key stages of each project. This is to include all necessary handover actions, timings and documentation such as:

- Installation checks
- Witnessing and testing
- Commissioning and commissioning results
- the health and safety file
- operation and maintenance manuals
- all certificates

7.7.2 Handover

A handover plan will be formulated and agreed between the Employer, Contractor, Supervisor and Project Manager. The plan will cover matters such as:

- Demonstrations/training
- insurance
- security
- defects reporting procedure
- defects rectification programme
- O&M manuals

The Contract Programme for each phase will include dates for developing the commissioning and handover plan.

7.7.3 Post Project Review

The primary objective of the post-project review is to identify and feed-back best practice to all parties such that continuous improvement can be sustained.

For each project a formal post-project review workshop will be held with all key stakeholders, consultants and contractors invited to attend and contribute. The output will be a Project Audit Report (PAR) which will compare the outcome of the works against the OBC. Key measurements will include performance in terms of:

- Health and Safety
- Sustainability/environmental performance
- Quality, Programme, Target Cost
- Stakeholder performance – collaborative working
- Employer/End User satisfaction
- Achievement of the critical success factors

The lessons learnt and the activities celebrated for success will be recorded and implemented into future projects to ensure continuous improvement is achieved on future projects.

Date:

Senior Responsible Owner:

Director of Finance:

Chief Executive:

8 Appendices