GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Hywel Dda University Health Board

CYFARFOD BWRDD PRIFYSGOL IECHYD
UNIVERSITY HEALTH BOARD MEETING

DYDDIAD Y CYFARFOD: **DATE OF MEETING:**	28 March 2024
TEITL YR ADRODDIAD: **TITLE OF REPORT:**	Business Justification Case for Phase 2 of Fire Enforcement Notices and Letters of Fire Safety Matters at Withybush Hospital (WGH)
CYFARWYDDWR ARWEINIOL: **LEAD DIRECTOR:**	Andrew Carruthers, Executive Director of Operations
SWYDDOG ADRODD: **REPORTING OFFICER:**	Rob Elliott, Director of Estates, Facilities and Capital Management

Pwrpas yr Adroddiad (dewiswch fel yn addas) **Purpose of the Report** (select as appropriate)
Ar Gyfer Penderfyniad/For Decision

ADRODDIAD SCAA
SBAR REPORT

Sefyllfa / Situation

This report sets out the next and final stage in delivering the capital investment necessary to comply with the Fire Enforcement Notices (FENs) and Letters of Fire Safety Matters (LoFSMs) in place on the Withybush Hospital (WGH) site.

This Business Justification Case (BJC) document was submitted to the Strategic Development and Operational Delivery Committee on 29 February 2024 and was fully supported.

Cefndir / Background

The Mid and West Wales Fire and Rescue Service (MWWFRS), following site inspections in July 2019 issued FENs to Hywel Dda University Health Board (HDdUHB) at WGH.

The HDdUHB response to this has been developed in close collaboration with MWWFRS and with their full agreement. This relationship has insured that the FENs were structured to align with the HDdUHB's own procurement and construction plan and also aligned to completion dates which are deliverable when working within a live District General Hospital.

Progress so far can be summarised as follows:

- Advance Works Contract – Vertical escape routes at WGH and priority work at St Caradog's **(FEN KS/890/02 and LoFSMs dated 12 January 2021) – Now completed and Enforcement Notice lifted.**

- Phase 1 – All remaining Horizontal escape routes at WGH, all remaining work at St Caradog's and St Nons, all work at Kensington, St Thomas, Springfield, Sealyham and Pembroke County Blocks **(FEN KS/890/03, FEN KS/890/05 and LoFSMs dated 12 January 2021)- Now completed and Enforcement Notice lifted.**

Remaining Fire Enforcement works - FEN KS/890/04 see also BFS/KS/00114719

The remaining work noted under this FEN is the Phase 2 work programme and the final stage of the Enforcement Notice works at WGH.

Throughout the development of the above, HDdUHB has worked closely with Welsh Government (WG) to appraise them of progress and developed consistent briefings to both WG and MWWFRS so that all parties are fully engaged in the complex works programme planned. This has been particularly helpful in assuring WG are fully sighted on the Business Case Programme and the timing of the major capital support needed to continue this programme of works. This being particularly important now given the challenges on All-Wales central capital funding.

Asesiad / Assessment

The next stage of the investment programme at the WGH is Phase 2 as noted above.

The development of the Phase 2 work programme has been challenging and has necessitated very close engagement with WG Specialist Fire Safety Advisors, MWWFRS and the HDdUHB's own Head of Fire Safety.

Of particular concern was the original scope of works identified by MWWFRS and the potential cost outturn of this programme. Initial broad estimates of this cost received from the supply chain, indicated potential costs in excess of £60m for this Phase.

This scope of works has seen substantially scrutinised and reviewed leading to a proposal being presented to MWWFRS in November 2023 setting out a revised scope of works and a much-reduced work plan. Acknowledgement should be given here for the support provided by the NHS Wales Shared Services Partnership (NWSSP) Senior Fire Safety Advisor.

This revised scope was considered by MWWFRS and formally supported on 12 December 2023.

HDdUHB, supported by the Supply Chain Partner and appointed Project Manager and Cost Advisor, have developed the BJC to draft stage to deliver the Phase 2 aspect of the FENs in line with the revised scope now agreed.

The programme here continues with the Phased delivery approach already approved by the HDdUHB, WG and MWWWFRs.

The current outturn cost of this programme is estimated to be £23.75m

The development of the BJC has included extensive involvement of the General Management Team at WGH in order to organise the works with the minimum disruption possible.

The BJC for Phase 2 indicates a completion date of August 2026. It should be noted that this is circa 10 months beyond the current FEN date.

These revised dates have already been presented to MWWFRS and they are fully supportive of the programme now being progressed. We will need to have subsequent meetings with them to confirm programme dates and to adjust final FEN dates with them as we progress this programme.

In summary, the current Capital cost of the Project is as follows:

- Basic Project Outturn Cost - £17,629,356
- Total Quantified Risk Contingency - £6,113,854
- Total Outturn Cost (including contingency) £23,743,209
  (All of the above are inclusive of VAT)

The contract is currently based on the NEC Contract Option E (rather than Option C). Therefore, the contract will operate on a cost-plus basis where the contractor has to fully justify all costs incurred and they will then be paid on this basis with the addition of profit and overheads. A review of this contract strategy is currently being considered jointly with NWSSP-SES/WG. The opportunity to move away from the Design for Life Building for Wales (D4L) framework and utilising a more appropriate framework may offer further efficiencies and reduce this contract sum and contract programme. This is a reflection of the challenging circumstances using D4L frameworks on Phase 1 at WGH.

The current assessment of programme period indicates a 96-week programme which is currently being reviewed as noted above.

The above programme of works in Phase 2 focuses predominantly on high-risk inpatient bed areas. It will also include any other areas which are located below a bedded area which will also require fire protection to avoid fire risk in the ward above.

We have worked to minimise the impact on bed capacity by completing the FEN at the same time as the Reinforced Autoclave Aerated Concrete (RAAC) remediation work on Wards 7, 8, 9, 10, 11 and 12. In addition to this we will shortly be commissioning a 24 bed decant ward facility at WGH funding by WG to mitigate the impact on clinical services whilst this major programme continues.

We are also reviewing any opportunity to minimise the impact of this Phase 2 fire programme by working closely with the RAAC installation team to explore any joint working opportunities.

Argymhelliad / Recommendation

The University Health Board Committee is asked to:

- Approve the submission of the Business Justification Case to Welsh Government.

Amcanion: (rhaid cwblhau) **Objectives: (must be completed)**	
Cyfeirnod Cofrestr Risg Datix a Sgôr Cyfredol: Datix Risk Register Reference and Score:	Not applicable
Parthau Ansawdd: Domains of Quality Quality and Engagement Act (sharepoint.com)	1. Safe
Galluogwyr Ansawdd: Enablers of Quality:	Not Applicable

Quality and Engagement Act (sharepoint.com)	
Amcanion Strategol y BIP: UHB Strategic Objectives:	4. The best health and wellbeing for our individuals, families and communities
Amcanion Cynllunio Planning Objectives	5a Estates Strategies
Amcanion Llesiant BIP: UHB Well-being Objectives: Hyperlink to HDdUHB Well-being Objectives Annual Report 2021-2022	4. Improve Population Health through prevention and early intervention, supporting people to live happy and healthy lives

Gwybodaeth Ychwanegol: Further Information:	
Ar sail tystiolaeth: Evidence Base:	Extensive site bases survey information and direct input from key operational estate staff
Rhestr Termau: Glossary of Terms:	Contained in the body of the text
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y Cyfarfod Bwrdd Iechyd Prifysgol: Parties / Committees consulted prior to University Health Board:	Members of Capital Sub Committee, Health & Safety Committee and the Strategic Development and Operational Delivery Committee have approved the BJC submission to Welsh Government

Effaith: (rhaid cwblhau) Impact: (must be completed)	
Ariannol / Gwerth am Arian: Financial / Service:	Funding sought from Welsh Government
Ansawdd / Gofal Claf: Quality / Patient Care:	Not applicable
Gweithlu: Workforce:	Delivering a sustainable estate to support Clinical Functions

Risg: **Risk:**	Business Continuity Management
Cyfreithiol: **Legal:**	Risk of enforcement from external agencies
Enw Da: **Reputational:**	Not Applicable
Gyfrinachedd: **Privacy:**	Not Applicable
Cydraddoldeb: **Equality:**	Not Applicable

Hywel Dda University Health Board

Withybush Hospital – Fire Precaution Upgrade Works

Phase Two Business Justification Case

Version: 1.0

22 February 2024

Version Control

Version	Date Issued	Notes	Issued To
0.1	6 Feb 2024	First Draft	J Wood (HDUHB) C Thomas (HDUHB
0.2	7 Feb 2024	Minor amendments - programme	J Wood (HDUHB) C Thomas (HDUHB
0.3	9 Feb 2024	Risk Register HB comments	J Wood (HDUHB) C Thomas (HDUHB)
0.4	15 Feb 2024	Minor amendments	C Thomas (HDUHB)
0.5	21 Feb 2024	Final Draft – incorporation of Capital Costs	J Wood (HDUHB) C Thomas (HDUHB) K Parry (Lee Wakemans)
1.0	22 Feb 2024	Final BJC	J Wood (HDUHB) C Thomas (HDUHB) R Elliott (HDUHB)

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1.0 Executive Summary

Following visits from the Mid and West Wales Fire and Rescue Service (MWWFRS) to Withybush Hospital and associated sites in August and December 2019, Hywel Dda University Health Board (HDUHB) received enforcement notifications and letters of fire safety matters in relation to compliance with fire safety regulations.

As such, a Programme Business Case (PBC) was submitted to Welsh Government in March 2020 identifying the significant risk of prosecution and potentially an enforced closure of identified buildings should there be a failure to comply with the fire enforcement notices. The PBC detailed the required capital investment and proposed packaging the main works into two phases, each requiring a separate Business Justification Case (BJC).

The Phase One BJC focused on primary escape routes within the main hospital (including residential accommodation blocks) and Bro Cerwyn / St Brynachs Day Hospitals (including St Caradog's and St Non's Wards) Haverfordwest. The BJC was approved by WG in June 2021 and works completed in December 2023. The outstanding works which address the residual risks within wards and departments are the subject of this BJC.

The proposed approach has been endorsed by MWWFRS and enforcement notices aligned with the works delivery programme. The capital costs outturn at an estimated cost of **£23,743,209** including VAT and an additional quantified risk contingency to be held by WG (£6,113,854).

The BJC seeks formal endorsement from Welsh Government (WG) for:

- Approval to proceed with the identified Phase Two works;
- Release of the associated capital funding.

This business case has been structured in line with the Better Business Case Investment Guidance, five case model structure, which is in accordance with HM Treasury best practice and the approach prescribed by Welsh Government

1.1 Strategic Case

In 2019, the Mid and West Wales Fire and Rescue Service (MWWFRS) issued the Health Board with two enforcement notices due to failure to comply with provisions of the Regulatory Reform (Fire Safety) Order 2005 because people were unsafe in case of fire.

In January 2020 the Health Board were issued with two advisory letters and a further letter was issued in August 2023 identifying additional fire safety works. These are summarised below:

Date	Details of enforcement notice
30/07/2019	MWWFRS visited Withybush Hospital on 30 July 2019. Enforcement notice EN/262/06 dated 8 August 2019 issued requiring Health Board required to remedy a number of specific areas by 30 November 2019.
19/11/2019	Health Board advise MWWFRS that a number of items on the schedule had been completed but that the compartmentation, fire doors and fire damper related items would require more time to resolve. MWWFRS subsequently agree extension to 31 January 2021.
01/12/2019	Fire incident at St Caradog's ward. MWWFRS visit site and issue enforcement notice EN/262/08 dated 6 December 2019 requiring resolution by 4 March 2020.
10/12/2019	Letter issued following MWWFRS visit to Bro Cerywn, St Non's and St Brynach wards advising there would be reinspection in 3 months and failure to comply may result in a further enforcement notice being issued.
07/01/2020	MWWFRS issue letter in relation to residential accommodation advising there would be reinspection in 6 months and failure to comply may result in a further enforcement notice being issued.
09/02/2020	Following a site visit on 7 February 2020 MWWFRS advised that EN/262/06 was withdrawn. As there were still outstanding issues for resolution further enforcement notices were issued dated 9 February 2020: KS/890/02 – action to be completed by 30 September 2020 KS/890/03 – action to be completed by 28 August 2021 KS/890/04 – action to be completed by 30 April 2020.
20/07/2020	Health Board advise MWWFRS of difficulties achieving compliance with the enforcement notices due to problems arising from the incidence of Covid-19. MWWFRS therefore grant extension of time for compliance for KS/890/02 to 30 January 2021.
26/08/2020	Health Board advise MWWFRS of difficulties achieving compliance with the enforcement notices due to problems arising from the incidence of Covid-19. MWWFRS therefore grant extension of time for compliance for KS/890/05 to 31 December 2021.
02/10/2020	Health Board meet with MWWFRS to review progress.
05/11/2020	Health Board advise MWWFRS of difficulties achieving compliance with the enforcement notices due to problems arising from the incidence of Covid-19. MWWFRS therefore grant extension of time for compliance for KS/890/03 to 30 April 2022 and KS/890/04 to 30 April 2025.
06/01/2021	Health Board meet with MWWFRS to review progress and to present proposals for completion of the schedule of works

Date	Details of enforcement notice
12/01/2021	MWWFRS issue a letter to confirm the agreed outcome of the meeting on 6 January 2021 whereby the enforcement notices are aligned with the proposed schedule of works: • Stage 1 / Advanced works relating to Vertical Escape Routes and priority works at St Caradogs to be completed by end Jan 2021; • Stage 2 / Phase 1 works relating to all remaining escape routes at WGH and all remaining work at St Caradogs, St Nons to be completed by end April 2022; • Stage 3 / Phase 2 works relate to all department / ward areas including any sub compartmentation and risk room area to be completed by end April 2025.
19/03/2021	MWWFRS confirm review of enforcement notices extended until March 2022.
12/04/2021	BJC One submitted to WG (approved 16 June 2021 and works commence on site)
05/05/2022	Health Board discuss with MWWFRS on 20 April 2022 progress against the Phase 1 works. The completion date is forecast for December 2022 with a period of 4 weeks following this to deal with any required corrective works. MWWFRS confirm via email the extension of KS/890/03 with formal extension letter to be issued.
24/08/2023	MWWFRS visit Withybush Hospital and issue letter of fire safety matters (BFS/KS/00114719) requiring action by March 2024 (with any items relating to compartmentation to be included within the Phase 2 programme of works.
12/12/2023	MWWFRS Letter of Fire Safety Failures; Action Plan of Remedial Measures BFS/ KS /00114719 endorsement of Phase 2 scope of work.

Table 1: Summary of Enforcement Notices / Letters of Fire Safety Matters

A Programme Business Case (PBC) was submitted in March 2020 with a proposed approach to delivery of the works being to immediately address the most urgent works and to group the main package of works into two phases.

The approach was agreed with MWWFRS and enforcement notices were amended to reflect the agreed delivery programme.

- Immediate Works: those works requiring immediate resolution including items of housekeeping, testing of emergency lighting and dry riser systems);
- Advanced Works: those works against which rapid progress was required including fire doors to main vertical escape routes and works to bedrooms in St Caradogs Mental Health unit;
- Phase One to concentrate on the fire stopping works to the primary escape routes (stem corridors) and will resolve the main compartmentation lines and 60-minute compartmentation as necessary i.e. escape routes, existing compartmentation between wards, upgrading and provision of fire and smoke dampers and fire doors;
- Phase Two to look at sub-compartmentation within departments, compartmentation between floors and hazard rooms within high risk departments (such as ITU/HDU) and works including but not exclusive of fire stopping, fire doors, upgrading and provision of fire dampers.

Following approval of the PBC, the Advanced Works (those works against which rapid progress was essential) commenced on site and completed during February 2021. A BJC supporting Phase One of the programme was submitted to WG in April 2021 with works completing in December 2023.

Detailed sample surveys were undertaken during 2022 to establish the probable nature of the Phase Two works. These were anticipated to have an on-site duration of circa three years and due to the complexity of the works required within the ward spaces, the works were considered too intrusive and disruptive to be undertaken whilst patients are present. As such a BJC was submitted to WG in July 2022 for a 24 bedded decant ward to be constructed on site in advance of the Phase Two works commencing to maintain effective patient service delivery throughout the programme. This was approved and the ward is anticipated to complete in March 2024.

The focus of the outstanding works which form this phase of works (subject of this BJC) address fire safety matters in patient ward areas, Theatres and ITU and other departments with a patient sleeping risk potential or proximity in line with the MWWFRS endorsed programme.

Throughout the overall programme, the Health Board have kept MWWFRS informed of progress and ensured their support of the proposed action plans. In December 2023, MWWFRS wrote to the Health Board confirming that the HB Phase Two action plan and associated timelines must be adhered to satisfy the Enforcement Notice requirements. MWWFRS have indicated that providing there is good progress against the works, the Enforcement Notices will be aligned to the proposed works programme.

1.1.1 Required Works

IHP (appointed supply chain partner) has conducted sample surveys to establish the probable nature of the Phase Two works using Ward 12 as a typical example. The inspection report noted key findings involving compartmental wall repairs, service diversion / replacement, asbestos removal, fire door replacement and works above the suspended ceiling to fire stop penetrations.

Given the nature of the environment, locations and concealed nature of the works a full exposure of the as-built arrangements and conditions will be required to fully assess the scope of works. The proposed programme of works is based on the sample surveys and lessons learned from phase one of the programme have been incorporated e.g. specification of fire stopping details. Assumptions have been applied to areas where more detailed survey has not been possible, however, opportunistic surveys of wards vacated due to RAAC concerns has given the

surveyors full access above ceilings and within IPS units, giving confidence on the number of obvious penetrations and conditions of walls for sub-compartments.

The works programme has been reviewed with MWWFRS and NWSSP Fire Officers. Acknowledging that the full extent of the works will not be known until areas become available during the build process, MWWFRS has endorsed the proposals and aligned enforcement notices with the construction programme.

The approach balances the requirements associated with the enforcement notice to improve the fire safety of the building whilst also managing the impact and effect to patient care during the delivery of the works. A decant strategy has been developed in conjunction with the Hospital Operational Management Team to facilitate the works

In order to maintain the safety of staff, patients and visitors to the WGH site, the UHB must comply with the MWWFRS fire enforcement notices. Failure to adhere could result in prosecution and potentially an enforced closure of buildings. It is noted that the current programme of works extends the enforcement notice, however, MWWFRS have indicated that providing there is good progress they will align the notices with the delivery programme.

1.2 Economic Case

The overarching approach to options development and appraisal was agreed with NHS Wales Shares Services Partnership Specialist Estates Services (NWSSP-SES) in January 2021 where there was agreement that there is only one viable option available to the Health Board which is to undertake the works as required by MWWFRS.

The Business as Usual / Do Nothing option risks further enforcement notices being served and potentially enforced closure of buildings. As this is not seen as a viable option, in agreement with WG the BAU option has not been taken forward for further economic / financial appraisal.

The proposed solution ensures compliance with the Fire Enforcement requirements and sustains the hospital for the next 7 – 10 years in the context of the AHMWW Strategy.

1.3 Commercial Case

1.3.1 Procurement Strategy

The Health Board has procured the design and construction elements of the proposed scheme through the NHS Building for Wales framework. The Supply Chain Partner and associated designer will be the Principal Contractor and Principal Designer for the purpose of the Construction (Design and Management) Regulations 2015 (CDM 2015).

Contractual Arrangements with all parties have been entered into using the NEC contract as prescribed under the Framework. Due to the nature of the project, and in agreement with WG and NWSSP SES an Option E Contract (cost reimbursable contract) was negotiated.

An alternative Procurement Strategy is currently being considered in consultation with WG / NWSSP SES for the construction element of Phase Two. This review will take the form of a workshop to ensure value for money as part of the scrutiny of this BJC. The outcome of this work may lead to alternative contractual route being followed for part or all of the Phase Two construction work. This could also include the use of an alternative framework (not Designed for Life Building for Wales),with appropriate arrangements developed for consultant appointments to support any revised approach. The outcome also needs to ensure that Value for Money is delivered in progressing this major investment and the HDUHB is fully supportive of this and will work closely with NWSSP-SES in moving this forward.

1.3.2 Service Requirements

This BJC states a requirement for the delivery of the Fire Safety Precautions scheme under the NEC3 Engineering & Construction (ECC) Form of Contract (Option E) and Designed for Life: Building for Wales Framework.

A series of design proposals are available to support the functional content, based on Health survey reports and building notes and latest available guidance. A full copy of the latest version of the design proposals is included in the Estates Annex.

This BJC covers the Phase Two works which focus on areas with a patient sleeping risk potential or proximity (i.e. mainly in ward and department areas).

A phasing methodology and approach to delivering the works has been agreed in principle with the hospital management team and is further detailed within the Estates Annex.

1.3.3 Contractual Arrangements

Other than the change from the framework standard of the NEC Option C to E, there are no key contractual clauses over and above the standard framework clauses, although requirements for AEDET, NEAT, BIM and BREEAM in relation to this project have been amended through local contract amendment.

1.3.4 Payment Arrangements

The Health Board have made, and will continue to make, payments to the externally appointed team in respect of products and services as follows:

- The contract will be managed by Hywel Dda University Health Board under the NEC3 Option C Target Cost Contract with regards to the Project Manager and Cost Advisor appointments, in line with 'Building for Wales' Framework terms and conditions;
- The contract will be managed by Hywel Dda University Health Board under the NEC3 Option E Cost Reimbursable with regards to the Supply Chain Partner appointment in line with 'Building for Wales' Framework terms and conditions.

The Project Bank Account is active.

1.4 Financial Case

The capital costs of the proposed solution at an estimated cost of **£23,743,209** including VAT.

1.4.1 Capital Costs

Capital cost forms are included at Appendix 3 and summarised below. The cash flow is shown in Table 3.

Element	Capital Costs
Works Cost	£9,660,480
Fees	£3,244,874
Non-works Costs	£704,454
Equipment	N/A
Quantified Risk Contingency	£1,334,192
Project Sub Total (excl. VAT)	***£14,944,000***
VAT	£2,685,356

Project Outturn Cost (inc. VAT)	**£17,629,356**
Additional Quantified Risk Contingency (Held by WG)	£5,094,878
VAT	£1,018,976
***Risk Contingency* Total (inc. VAT)**	**£6,113,854**
Forecast Project Outturn Cost	**£23,743,209**

Table 2: Indicative Capital Costs

2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Total
£712,135	£620,628	£10,524,077	£10,862,779	£935,522	£88,069	**£23,743,209**

Table 3: Indicative cash flow for capital expenditure

1.4.2 Revenue Implications and Affordability

It has been assumed that there will be no additional recurrent pay and non-pay costs, with the exception of capital charges attributable to the delivery of the programme. The Health Board's assumption is that capital charges including increased depreciation and any impairment charges on completion will be funded by Welsh Government. The estimated Annually Managed Expenditure (AME) Impairment charge is £16.7m and annual Departmental Expenditure Limit (DEL) depreciation charge is £118k.

1.4.3 Funding Arrangements

This project requires further funding from the NHS All Wales Capital programme.

1.5 Management Case

1.5.1 Programme Management Arrangements

The programme management structure for this programme is aligned with the Business Continuity (Major Infrastructure) Programme Approach which has been formally constituted and established in line with best practice (Managing Successful Programmes) and will be managed in accordance with PRINCE 2 methodology.

The programme of works identified within this business case will be managed via the WGH Delivery Team with direct reporting into the Project Board and the Capital Sub-Committee. A fortnightly Fire Enforcement Control Group has been established to ensure delivery of the agreed action plan.

The Health Board Director of Operations is the formal Senior Responsible Officer (SRO) and will ensure that the programme meets its overall objectives and delivers its expected benefits. The Director of Estates, Facilities and Capital Management is the Programme Director who will be responsible for the successful delivery of all projects within the programme. The Capital Development Manager is the Estates lead overseeing operational delivery of the project.

1.5.2 Project Milestones

Given the locations and concealed nature of the works, full exposure of the as-built arrangements and conditions will be required to fully assess the scope of works and establish accurate timescales for their execution. An indicative programme is included in Appendix 4 and key milestones shown in Table 4 below. This assumes an overall contract duration of 108 weeks.

Programme	Milestone
Business Justification Case submission to WG	March 2024
WG Scrutiny and BJC Approval	May 2024
Phase Two Commencement of works on site	August 2024
Phase Two Completion of Works	July 2026
Phase Two Contract mop up (demobilisation)	August 2026

Table 4: Programme Milestones

The proposed phasing strategy has been developed to ensure minimum disruption and congestion wherever possible (section 7.2.1, Table 16).

1.5.3 Arrangements for Contract Management

This will be administered under the NEC3 Engineering & Construction (ECC) Form of Contract, Option C Target Contract with Activity Schedule, with standard Designed for Life: Building for Wales Framework amendments for both the Project Manager and Cost Advisor.

For the design and construction contract for the Supply Chain Partner, Integrated Health Projects (IHP), this will be administered under the NEC3 Engineering & Construction (ECC) Form of Contract, Option E Cost Reimbursable Contract.

1.5.4 Main Risks

A comprehensive risk register is in place which has been ratified following a workshop including all of the delivery team members, HDUHB estates and operations team and importantly, the key stakeholders representing the hospital nursing / operational teams.

To align with Phase One BJC an additional risk allocation, over and above the project risk allocation, will be held centrally by WG. The BJC therefore includes for a reasonable level of contingency (wholly owned by the Health Board) along with a further sum allocated to the project but held by WG under Group 3 funding, being made available in the event that it is required. For this BJC, the amount associated with the WG Risk (34.09% of forecast project outturn) has been calculated based on different allowances dependant on whether works are to be carried out in a decanted area or otherwise. The detailed risk register is included in Appendix 5, with the key risks (risk score 16 and above) identified in the table below:

Risk	Mitigation Measure
Strategic Risks	
Scope of works not fully established / incomplete surveys during BJC stage (e.g. vertical compartmentation) to inform the design, programme and cost due to access to only a sample of locations across hospital.	Base design on agreed scenarios and assumptions from survey output. E.g. using findings from ward surveys taking worst case scenario for number of penetrations etc and applying across other areas. Suitable allowances to be agreed with the SCP within cost plan and project risk contingency in line with assumptions regarding out of hours works or phased works or decanted phasing of works.
Hospital activities impact on proposed phasing / Hospital unable to release work areas in accordance with the programme due to clinical needs of patients. Anticipated decant strategy / decant ward does not happen as expected.	Early engagement with the Hospital and Management Teams to discuss requirements and expectations as well as define phasing strategy. Ongoing coordination between project team and HB during construction phase. P2 works planned on basis of internal decant ward (completion anticipated March 2024). Non ward areas works phased within areas or out of hours.
Other hospital works concurrent with and disrupting works.	Early engagement with the Hospital. Internal HB communication regarding impact of potential other hospital projects. HB to provide ongoing updates as elements are known. Example issue of works programmes provided to SCP.
Construction Risks	
There is a risk that unknown hazardous materials will be discovered in the existing buildings.	Identification of findings to client team and if necessary, execute additional Asbestos etc surveys before commencement of works. Time and cost allowance to be made in BJC. HB to release existing Asbestos registers. Unknown scenarios, i.e. area which can't be accessed to survey in advance, to be managed through contract administration.
Live services impeding the Works and inability to isolate or relocate	Surveys when access available to areas. Unknown scenarios, i.e. area which can't be accessed to survey in advance, to be managed

Risk	Mitigation Measure
	through contract administration or approved derogation item as with Phase 1 examples. HB to provide service osolations confirmations.
Financial Risks	
Capital costs underestimated	Review as part of BJC development, including surveys, design, programming all influencing cost. Supported by robust project risk contingency fund similar to Phase 1 to be agreed with HB.
Increased costs due to unknown works	Financial risk strategy agreed with WG. Contractor to procure the materials in a timely manner. Option E so HB take cost risk.

Table 5: Main Risks

1.5.5 Main Benefits

The main benefit from this project will be HDUHB compliance with fire enforcement notices. Additional benefits in relation to reduced backlog maintenance and a comprehensive concise fire strategy for the site will also be realised.

1.5.6 Programme Assurance

Due to the nature of this BJC, the Health Board has determined that an Equality and Health Impact is not required. Ensuring that buildings are compliant with fire safety regulations will improve the safety for all patients, staff and visitors to the hospital.

A Risk Potential Assessment has been undertaken by the SRO (Appendix 6) which has assessed the project as low risk. An Integrated Impact Assessment has also been completed to determine impact on service and workforce (Appendix 7).

1.5.7 Post Project Evaluation

The Programme Board will ensure that post project evaluation is undertaken in accordance with Welsh Government requirements. Evaluation will include:

- Evaluation of the project procurement stage;
- Evaluation of the various processes put in place during implementation.

Whilst the Post Project Evaluation of Phase One is yet to be formally undertaken, a lessons learnt is included in section 3.5.5.

1.5.8 Contingency Plans

There are no contingency plans should this project fail to achieve approval. The Health Board are at risk of receiving further enforcement notices which would impact on delivery of all hospital services.

1.6 Conclusion and Recommendations

This business case sets out the required actions for Hywel Dda University Health Board to be compliant with fire safety regulations and remove the remaining enforcement notices.

The business case has described the proposed approach to the works which aims for completion of the Phase Two works by August 2026 (dependent on works commencing in August 2024).

The Health Board must comply within the stipulated timeframe set by the Mid and West Wales Fire and Rescue Service or risk prosecution and ultimately the potential closure of the Withybush General Hospital and / or associated sites. It is noted that the delivery programme extends the timelines stipulated within the Enforcement Notices, however it is anticipated that MWWFRS will align the notices with the proposed programme of works.

It is requested that Welsh Government:

- Approve this business case based on the proposed cost and approach to delivery of work;
- Acknowledge the MWWFRS expectations for completion of works by October 2025.

2.0 Introduction

2.1 Scope of Document

Following visits from the Mid and West Wales Fire and Rescue Service (MWWFRS) to Withybush Hospital and associated sites in August and December 2019, Hywel Dda University Health Board (HDUHB) received enforcement notifications and letters of fire safety matters in relation to compliance with fire safety regulations. A Programme Business Case was submitted to Welsh Government in March 2020 detailing proposals which ensured that the Health Board would be able to achieve compliance within the stipulated timescales.

The PBC recommended immediate commencement on a programme of Advanced Words and the remaining works were packaged into two separate phases. A Business Justification Case (BJC) for Phase One of the main works (primary escape routes) was approved in June 2021 with works completing in December 2023, resulting in the lifting of the associated Fire Enforcement Notices.

This BJC has been developed in conjunction with MWWFS to detail the required investment for the Phase Two works (sub-compartments and identified hazard rooms within departments). The timeline for this review was:

- July 2023: Initial Review;
- September 2023: Final scope submission to MWWFRS;
- December 2023: Letter received from MWWFRS confirming endorsement of UHB Fire Strategy and the Phase Two scope of works to lift the remaining enforcement notice.

2.2 Document Structure

This business case has been structured in line with the Better Business Case Investment Guidance, five case model structure, which is in accordance with HM Treasury best practice and the approach prescribed by Welsh Government (WG):

- **Strategic Case:** This section provides an overview of the context within which the investment will be made. It sets out the background and strategic context outlining the issues faced by Hywel Dda University Health Board and describes how the proposed investment will support organisational objectives;
- **Economic Case:** This section confirms the available options and makes recommendations for the preferred way forward;
- **Commercial Case:** This section sets out the procurement arrangements for the scheme;

- **Financial Case:** This section confirms funding arrangements and affordability and explains any impact on the balance sheet of the organisation;
- **Management Case:** This section details the plans for successful delivery of the project to cost, time and quality including the proposed approach for post project evaluation.

A glossary of abbreviations used is included at Section 9.0.

3.0 Strategic Case

This case describes the context within which this programme has been developed and demonstrates that the programme has been informed by, and will address, the identified drivers for change.

3.1 Organisational Overview

Hywel Dda University Health Board (HDUHB) is one of seven health boards in Wales and serves the population of mid and west Wales. The Health Board provides primary, community, in-hospital, mental health and learning disabilities services to a population of 384,000 taken from the three counties as follows:

- Carmarthenshire 183,936 residents;
- Ceredigion 79,488 residents;
- Pembrokeshire 120,576 residents.

HDUHB covers more than a quarter of the landmass of Wales and is the second most sparsely populated Local Health Board area, with roughly 13% of the total population of Wales.

Acute and community services are provided via four main hospital sites as well as a range of community-based services. The geography of the Health Board is challenging with journey times between the health board sites ranging from 45 to 105 minutes. The acute sites are:

- Bronglais General Hospital in Aberystwyth (BGH);
- Glangwili General Hospital in Carmarthen (GGH);
- Prince Philip Hospital in Llanelli (PPH);
- Withybush General Hospital in Haverfordwest (WGH).

3.1.1 Summary of Financial Standing

The Health Board's forecast outturn for 2023/24 is a deficit of £66m. The annual plan for 2024/25 is currently under development.

3.1.1.1 Capital Plan

The largest strategic capital commitments in the coming years and, for which detailed planning commenced in 2019/20, relate to the 'A Healthier Mid and West Wales: Our Future Generations Living Well' clinical strategy and the infrastructure requirements including a new build Urgent and Planned Care Hospital and the repurposing of Glangwili and Withybush Hospitals, reducing the UHB's acute sites from 4 to 3. To support the UHB's capital and infrastructure plans, the

UHB is currently considering the resource capacity and capability requirements to deliver this complex, high value programme with ongoing discussions with Welsh Government to the scope and scale of development and modernisation needed including the digital modernisation required. The submitted Programme Business Case provides the evidence and confidence that major capital investment can help deliver the sustainable service model envisaged.

The 10-year Capital Investment Plan will prioritise capital developments and backlog maintenance in line with the current prioritised position and strategic objectives and be informed by the current risks the organisation holds. A core focus of the capital plan is the delivery of essential quality and safety, business continuity schemes including replacements, issues of compliance and infrastructure maintenance. A summary of the Capital Investment Programme confirming the fire compliance works is included within the estate annex.

This Phase Two Fire scheme is a direct response to the issues of compliance and essential fire safety matters identified by Mid and West Wales Fire and Rescue Service and is therefore identified within the University Health Board's 10-year capital plan.

3.1.1.2 Discretionary Capital Programme

The UHB receives an annual allocation of circa £7.4m which is allocated annually into the areas of highest investment need, primarily focussed on backlog and replacement risks in the estate, medical equipment and digital assets

For these locally controlled funds, this is in the main targeted to support issues of quality and safety, and business continuity and is allocated over the following headings:

- Infrastructure and statutory backlog;
- Estates statutory compliance;
- Replacement of medical and other equipment;
- Essential maintenance of estates infrastructure;
- Standardisation of medical equipment and devices across sites to enable cross site working;
- Capital support posts and business case developments;
- Significant upgrades of IT infrastructure and keeping pace with IT replacements.

The UHB faces very significant backlog pressures in IM&T, estates maintenance and equipment replacement which means that not all risks can be mitigated and programmes of replacement over a longer timeline are being developed and will need to be the subject of All Wales Capital support.

3.1.2 Hywel Dda Health and Care Strategy

In 2018, HDUHB published 'A Healthier Mid and West Wales: Our Future Generations living well' (AHMWW), the long-term strategy for transforming health services and delivering quality care closer to home. The AHMWW Programme is the Health Board's strategic transformation work programme which brings together all strategic work into one defined programme. The ethos of continuous engagement and co-production is at the heart of the programme with the key objective being to co-design future care and services with patients, staff, the public, key stakeholders and partners, in order to move beyond the traditional structure for NHS services by being truly able to address the needs of the population through earlier intervention, a flexible and joined up approached to care and preventing ill health in the first place.

The underlying ethos of AHMWW is that the programme should be clinically led and deliver a long-term strategic future for health and care. The focus is on keeping people healthy with a shift away from hospitals to care closer to home. While hospitals will continue to be a key part of the health and care system, the wider whole system approach will involve the hospitals working much more closely in the community at one end, while forming stronger links to highly specialised services at the other.

The future hospital model is planned to have a new hospital located in the south of the region which will be the main site within a network of hospitals and community hubs across mid and West Wales that includes the existing hospital sites. These hospitals will be vibrant centres supporting the health and well-being of the communities they serve. Under the proposal, Withybush Hospital will be repurposed to offer a range of services to support the social model for health and well-being but would no longer be an acute hospital site.

The Health Board submitted a Programme Business Case (PBC) to Welsh Government (WG) in March 2022 which sets out the context and high-level need for the resources to support capital and estates planning for the delivery of the Health and Care Strategy transformation programme. This will deliver the essential estates infrastructure of a new purpose built planned and urgent care hospital and the repurposing of the existing hospital sites and will also consider the required investment into the community estate infrastructure to support delivery of the new models of care.

A separate PBC has been developed to address the business continuity / estates infrastructure issues across all four acute hospitals within the context of, and pending delivery of, the AHMWW Strategy. This was submitted to Welsh Government and received endorsement in July 2021.

Addressing the essential fire upgrade works as described in this BJC will be essential to maintaining both continuity of service in the interim period as well as supporting the re-purposing requirements. Currently both programmes of works are being reviewed with WG and NWSSP

3.2 Policy Context

The Health Board has a corporate responsibility to deliver an efficient, safe estate that supports clinical services in line with WHBN-008: Strategic Framework for the efficient management of healthcare estates and facilities. There are also responsibilities in the provision of soft and hard FM services requiring, where practicably possible, adherence to Welsh Health Technical Memoranda (WHTM). WHTMs provide guidance for the design, management and maintenance of healthcare engineering systems including fire safety.

There are a number of regulatory frameworks that the Health Board should comply with in relation to fire safety. These include:

- Building Regulations 2010;
- Regulatory Reform (Fire Safety) Order 2005;
- WHTM 05-01: Firecode Managing Healthcare Fire Safety (2019);
- WHTM 05-02: Fire safety in the design of healthcare premises (2014);
- WHTM 05: Fire Safety (2011);
- Fire and Rescue Services Act (2004).

The Regulatory Reform (Fire Safety Order) consolidated the fire related legislation. As a result, the Healthcare Firecode suite of documents was revised with mandatory requirements for all NHS bodies. The NHS Wales Fire Safety Policy provides an unambiguous statement applicable to the NHS in Wales and premises where patients receive treatment or care. The aims are to minimise the incidence of fire throughout the NHS estate in Wales and to minimise the impact from fire on life, safety, delivery of service, the environment and property. Adherence with these regulatory frameworks underpins this Business Justification Case where practicably possible.

3.3 Programme Investment Aims

Within the overall NHS planning context, the Minister for Health and Social Services has determined a series of investment objectives for the NHS Infrastructure Investment Programme including capital and revenue funding delivery models. These objectives have been adopted by HDUHB and interpreted for the overarching Estates Infrastructure programme as follows:

- Reduce the risk profile on Estate infrastructure;
- Maintain appropriate levels of patient safety and comfort;
- Extend the operating life of the hospitals;
- Support future service planning by ensuring sufficient infrastructure of systems resilience and capacity for future service modelling;
- Reduce essential backlog maintenance requirements;
- Identify and deliver a cost effective and value for money solution, programme timetable and budget.

The investment aims specific to this Business Case have been developed within the context of the overarching estates infrastructure approach and have a specific focus on ensuring compliance with the NHS Wales Fire Safety Policy on the Withybush Hospital Site.

The schemes of work included within this BJC are specific to WGH, elements of which are also works packages included in the Estates Infrastructure programme which is the subject of a separate business case. The programme investment aims for this BJC are to:

- Ensure compliance with core statutory standards;
- Reduce the risk profile on estate infrastructure;
- Support the delivery of safe, sustainable and accessible services, and facilitate high standards of patient care.

3.4 Existing Arrangements

Withybush Hospital is located in Haverfordwest and has a gross floor area of 43,368m^2 and provides 219 beds. The main hospital buildings were constructed in the 1970s. A new Emergency and Urgent Care Centre was opened in 2010 and a new Renal Dialysis Unit opened in 2014.

There has been limited major investment since the opening of the original building apart from a retrospective install (1980s) of a pitched roof which is now nearing the end of its lifecycle. Most areas of the original hospital now require comprehensive refurbishment and the process commenced with refurbishment of the Pathology department and some ongoing ward refurbishments. There is a need for considerable investment in the site with both the site engineering infrastructure and building assets either approaching or exceeding intended lifespan.

The age profile of the estate has implications on estate backlog performance which for WGH was assessed as being £45M at 31 March 2023.

Backlog Maintenance Costs by Risk Category per site per risk category for 2022/23				
High Risk Backlog Costs (£)	Significant Risk Backlog Costs (£)	Moderate Risk Backlog Costs (£)	Low Risk Backlog Costs (£)	Risk Adjusted Backlog Costs (£)
£12,900,000	£29,377,512	£1,837,129	£847,380	£42,380,762

Table 6: Withybush Hospital Site – 2022/23 Backlog Maintenance Liability

Figure 1 shows the age profile of the buildings on the Withybush Hospital site.

Figure 1: Withybush Hospital Building Age Profile

The Health Board has benefited from uplifts in its recurring discretionary capital allocation and whilst this has been welcomed and has enabled greater flexibility at a local level to manage competing expenditure priorities, it remains extremely difficult to resolve all risks.

The reduction in the latest discretionary capital allocation has placed additional pressure on the HDUHB which continues to face very significant backlog pressures in IM&T, estates maintenance and equipment replacement. The resulting impact has been service interruptions, risks to clinical service and business continuity and health and safety concerns. Not all risks

can be mitigated and programmes of replacement over a longer timeline are being. A separate PBC has been developed to address the business continuity / estates infrastructure issues across all four acute hospitals within the context of the AHMWW Strategy, subject to All Wales Capital support.

An overview assessment of the estate was undertaken in 2018 to determine the extent of works required to bring the acute sites in line with statutory compliance regulations. Fire compliance was assessed against the current version of HTM 05-02 - Firecode – Guidance in support of functional provisions 2015. It was determined that fire doors were generally in poor condition and that full system replacement would be required to achieve certified performance. Although progressive horizontal evacuation is possible from inpatient wards at one end, each ward has a dead end where escape is only possible via a staircase.

Following an alert from NHS England in November 2019, WG notified all health boards and trusts of a potential issue with the use of Reinforced Autoclaved Aerated Concrete (RAAC) planks which were commonly used in NHS building construction between 1960 and 1995. In line with a WG directive the building was surveyed the presence of RAAC planks was confirmed. WG approved circa £12.9m to support the programme. Remedial work began during 2023 with the overall works programme due to complete in March 2025 (ward areas will complete March 2024). This will address the high risk backlog maintenance identified in Table 6.

During 2019, the Mid and West Wales Fire and Rescue Service (MWWFRS) visited Withybush Hospital and associated sites to assess compliance with fire safety regulations. As a result of their findings the Health Board were issued with enforcement notifications and letters of fire safety matters.

Following a series of technical surveys, a Programme Business Case was submitted to Welsh Government in March 2020 detailing the capital investment required for the Health Board to achieve compliance with the regulatory requirements.

The PBC recommended immediate commencement on a programme of Advanced Works (those items against which rapid progress was required, including fire doors to main vertical escape routes and works to bedrooms in St Caradogs Mental Health unit) which completed in February 2021. The remaining works were packaged into two separate phases, each requiring a Business Justification Case.

The Phase One BJC focused on primary escape routes was approved by WG in June 2021 and works completed in December 2023. The outstanding works to address sub-compartments and hazard rooms within departments are the subject of this BJC.

3.5 The Case for Change

This section of the business case details the fire enforcement notices that have been received, the works that have been completed and a detailed assessment of those works that are outstanding (and form the subject of the business case).

3.5.1 Fire Enforcement Notices and Letters of Fire Safety Matters

The Mid and West Wales Fire and Rescue Service (MWWFRS) visited Withybush Hospital on 30 July 2019 and issued enforcement notice (EN/262/06 dated 8 August 2019) requiring the Health Board to take action by 30 November 2019. A further enforcement notice was issued in December 2019 (EN/262/08) and letters of fire safety matters were also issued in January 2020.

The notices were issued due to failure to comply with provisions of the Regulatory Reform (Fire Safety) Order 2005 because people were unsafe in case of fire and placed an obligation on the Health Board to take action. A summary of these enforcement notices and letters of fire safety is provided below:

Date	Details of enforcement notice
30/07/2019	MWWFRS visited Withybush Hospital on 30 July 2019. Enforcement notice EN/262/06 dated 8 August 2019 issued requiring Health Board required to remedy a number of specific areas by 30 November 2019.
19/11/2019	Health Board advise MWWFRS that a number of items on the schedule had been completed but that the compartmentation, fire doors and fire damper related items would require more time to resolve. MWWFRS subsequently agree extension to 31 January 2021.
01/12/2019	Fire incident at St Caradog's ward. MWWFRS visit site and issue enforcement notice EN/262/08 dated 6 December 2019 requiring resolution by 4 March 2020.
10/12/2019	Letter issued following MWWFRS visit to Bro Cerywn, St Non's and St Brynach wards advising there would be reinspection in 3 months and failure to comply may result in a further enforcement notice being issued.
07/01/2020	MWWFRS issue letter in relation to residential accommodation advising there would be reinspection in 6 months and failure to comply may result in a further enforcement notice being issued.

Date	Details of enforcement notice
09/02/2020	Following a site visit on 7 February 2020 MWWFRS advised that EN/262/06 was withdrawn. As there were still outstanding issues for resolution further enforcement notices were issued dated 9 February 2020: KS/890/02 – action to be completed by 30 September 2020 KS/890/03 – action to be completed by 28 August 2021 KS/890/04 – action to be completed by 30 April 2020.

Table 7: Summary of Enforcement Notices / Letters of Fire Safety Matters

In March 2020 and in line with agreements made with MWWFRS, a Programme Business Case was submitted to Welsh Government detailing the elements that needed rapid progress (a package of Advanced Works which completed during February 2021) and seeking approval to proceed with next stage business case development for the main work packages.

To support the development of the PBC, a series of specialist surveys were conducted to enable initial assessments and assumptions to be made. This concluded that more detailed technical surveys were required to determine the full extent of works, the impact of asbestos and likely methodology restrictions. As the overall works programme was likely to be in excess of 4 years the PBC recommended a two-phase approach which WG endorsed:

- Phase One to concentrate on the fire stopping works to the primary escape routes (stem corridors) and to resolve the main compartmentation lines and 30-minute compartmentation as necessary i.e. escape routes, existing compartmentation between wards and high-risk rooms and upgrading and provision of fire and smoke dampers and fire doors (WG approved BJC June 2021);
- Phase Two to look at the sub-compartments and hazard rooms within departments and to resolve the 30-minute zones, typically general risk rooms on wards and departments etc including fire stopping, fire doors, upgrading and provision of fire dampers and additional lobbied approaches to wards and stairwells (subject of this BJC).

Date	Details of enforcement notice
20/07/2020	Health Board advise MWWFRS of difficulties achieving compliance with the enforcement notices due to problems arising from the incidence of Covid-19. MWWFRS therefore grant extension of time for compliance for KS/890/02 to 30 January 2021.
26/08/2020	Health Board advise MWWFRS of difficulties achieving compliance with the enforcement notices due to problems arising from the incidence of Covid-19. MWWFRS therefore grant extension of time for compliance for KS/890/05 to 31 December 2021.
02/10/2020	Health Board meet with MWWFRS to review progress.
05/11/2020	Health Board advise MWWFRS of difficulties achieving compliance with the enforcement notices due to problems arising from the incidence of Covid-19. MWWFRS therefore grant

Date	Details of enforcement notice
	extension of time for compliance for KS/890/03 to 30 April 2022 and KS/890/04 to 30 April 2025.
06/01/2021	Health Board meet with MWWFRS to review progress and to present proposals for completion of the schedule of works
12/01/2021	MWWFRS issue a letter to confirm the agreed outcome of the meeting on 6 January 2021 whereby the enforcement notices are aligned with the proposed schedule of works: • Stage 1 / Advanced works relating to Vertical Escape Routes and priority works at St Caradogs to be completed by end Jan 2021; • Stage 2 / Phase 1 works relating to all remaining escape routes at WGH and all remaining work at St Caradogs, St Nons to be completed by end April 2022; • Stage 3 / Phase 2 works relate to all department / ward areas including any sub compartmentation and risk room area to be completed by end April 2025.
19/03/2021	MWWFRS confirm review of enforcement notices extended until March 2022.
21/06/2021	WG approve Phase 1 BJC and works commence on site

Table 8: Summary of Enforcement Notices / Letters of Fire Safety Matters

The Phase One BJC detailed the difficulty in assessing the scope of the work content whilst also keeping the hospital functioning. For example as the majority of fire stopping remedials are above ceiling voids it required a full survey to both sides of the partition, removal / investigation of every previously sealed penetration. This is impractical due to the extremely high inputs of labour and time which is almost as disruptive as physically undertaking the works itself. Until ceilings were removed, it was difficult to ascertain the extent of the difficultly in carrying out the remedial activity, for example determining whether services placed close to the wall preventing access and requiring diverting prior to firestopping works being undertaken.

As such the programme extended and further discussions with MWWFRS in May 2022 to review progress resulted in a realignment of the Phase One enforcement notices to the revised works programme. The works completed during December 2023 and the associated Fire Enforcement Notices have been lifted.

3.5.2 Decant Ward (Phase Two Enabling Works)

The focus of the Phase Two works is to address the fire safety matters in patient ward areas and other departments. The PBC stated that due to the complexity of the works and the difficulty in fully determining the scope of works, any requirement for decant facilities would be considered as part of the detailed planning for the main phases of the works. During 2022 the Supply Chain Partner (IHP) undertook a number of detailed surveys to establish the probable nature of the

required works for Phase Two and using one of the wards as a typical example, noted the following key findings:

- **Main Sub-Compartmentation Wall:**
  - Over boarding or totally replaced with a new construction. To carry out these works will require the isolation of two bed wards, two bathrooms and kitchen.
- **Asbestos Removal:**
  - Asbestos boxings throughout the ward that are high risk and notifiable which will require removal under the control of specialists. A working enclosure and three air lock systems will need to be formed to carry out the removal process.
- **Service Disconnections:**
  - Services disconnection and / or isolation to rooms will include electrical power and containment, fire alarm system, ductwork ventilation and a number of pipework runs. This could potentially isolate the supply routes to the remaining areas of the ward, thus rendering those rooms unusable.
- **Above Ceiling Works:**
  - Fire stopping of vertical penetrations between floors and introduction of fire collars to services between floors.

At this stage, the anticipation was that the Phase Two works would have an on-site duration of circa 3 years. Due to the complexity of the works required within the ward spaces, the works were considered too intrusive and disruptive to be undertaken whilst patients are present requiring individual wards to close or be relocated on a phased basis to enable the works to progress.

There is no available space or capacity within the hospital to support a relocation of wards / departments and whilst the Health Board considered the impact of not replacing the capacity, it concluded that the risks to patient safety would be too significant. As such a BJC was submitted to WG in July 2022 for a 24 bedded decant ward to be constructed on site in advance of the Phase Two works commencing to maintain effective patient service delivery. The ward will complete during March 2024.

3.5.3 Additional Letter of Fire Safety Matters

MWWFRS visited the hospital in August 2023 and evaluated the fire safety provided in Block 4 and 5 (including ITU). As a result of their findings an additional letter of fire safety matters was issued on 24 August 2023 (reference BFS/KS/00114719) which identified eleven specific actions as summarised below and detailed in Appendix 1.

MWWFRS have confirmed that they are happy for those items relating to compartmentation to be addressed as part of the Phase Two works package (i.e. as part of the scope of works within this BJC) with all other actions to be completed in March 2024. Progress against these items is detailed in Appendix 2.

Item	Area of Non-Compliance	Required Action
The standard of horizontal or vertical fire separation provided is not maintained adequately		
1	Wedging Doors	Wedges, hooks and any other devices in use as a means of holding the self-closing doors in the open position shall be removed to ensure that the doors are effectively self-closing. **Ongoing with Phase One and included in Phase Two scope of works**
2	Charging items on means of escape	Charging of battery devices must not be done within the means of escape, remove all items into a suitable room with fire door.
3	Electrical items on means of escape	The storage / use of electrical equipment/devices within the means of escape is not permitted. Remove all devices into a suitable room.
5	Standard of compartmentation provided in the building is not adequate.	Breaches in compartmentation identified within the endoscopy storeroom which would not support the existing evacuation strategy. All breaches in compartmentation should be fire stopped to provide appropriate fire resistance in accordance with building regulations. **Included in Phase Two scope of works**
7	Air Transfer Grille	Where a fire door is required to be fitted with an air transfer grille, it should only be fitted with one capable of sealing both by thermal initiation and by interface with smoke sensors
8	Fire Door	A fire door should be installed providing 30 minutes fire resistance. Panels / partitions above / at sides of doors should provide a similar degree of fire resistance between the W4 sluice and electrical room. **Included in Phase Two scope of works**
Reduce the risk from fire		
4	Combustible materials too close to an ignition source.	Relocate items within Ward 1 treatment room to improve safety. There was charging of items and a fridge located next to an oxygen point. This room requires movement of the items and / or oxygen and vacuum point isolating to reduce risk fire to an acceptable level.
9	Flammables storage	Ensure flammable items stored in metal flame resistant cupboard
Safe Evacuation		
6	Emergency Lighting	Provide an emergency lighting system (which is to be independent of all other systems), to illuminate Block 4 LGF Kitchen
10	Distance from theatres staff room to nearest place of relative safety is so great that fire / smoke can overtake people before reach the exit	Reduce the risk within this area to as low as practicable by: Either reconfigure the area by moving the kitchen into the staff room or make up the corridor so it provides adequate fire resistance to allow the relevant person to affect a safe exit. **Included in Phase Two scope of works**

Item	Area of Non-Compliance	Required Action
11	Current layout (ward 3 approach) will impact means of escape and render evacuation strategy of the block ineffective	Confirm that the ward approach to ward 3 will be made up to mirror other ward approach areas within the hospital, to allow for progressive horizontal evacuation of the relevant person **Completed**

Table 9: Additional letter of fire safety matters actions

3.5.4 Phase Two Works

IHP (appointed supply chain partner) has conducted sample surveys to establish the probable nature of the Phase Two works using Ward 12 as a typical example. The inspection report noted key findings involving compartmental wall repairs, service diversion / replacement, asbestos removal, fire door replacement and works above the suspended ceiling to fire stop penetrations:

- Sub-compartmentation Walls – Over boarding where 60-minute fire rating required to be achieved (only anticipated in ITU) or repair to penetrations where 30 minute fire rating required to be achieved. To carry out these works, Wards, ITU and Theatres will be decanted;
- Asbestos Removal – Extent of asbestos presence / finding is largely unknown and will be subject to findings (with risk allowances made) once full construction commences noting that appropriate removal under the control of a specialist will take place;
- Service Disconnections – Services disconnection and or isolation to rooms will include electrical power and containment, Fire alarm system, ductwork ventilation and a number of pipework runs. This could potentially isolate the supply routes to the remaining areas of the ward thus rendering those rooms unusable;
- Replacement of applicable ventilation dampers which pass through sub-compartment walls;
- Above Ceiling Works – Fire stopping of vertical penetrations between floors and introduction of fire collars to services between floors;
- Replacement of doors located on applicable fire compartment walls.

Given the nature of the environment, locations and concealed nature of the works a full exposure of the as-built arrangements and conditions will be required to fully assess the scope of works. The proposed programme is based on quantitative analysis of surveyed information for representative work sections and relative allowances for other sections based on size and complexity with a detailed description provided within the Estates Annex.

In conjunction with their PSCP, the Health Board developed a programme which was based on an iterative approach to delivering the works with the anticipated scope of works based on a sample of surveys undertaken and assumptions applied to areas where more detailed survey was not possible.

Lessons learned from phase one of the programme have been incorporated e.g. specification of fire stopping details. In addition, opportunistic surveys of wards vacated due to RAAC concerns has given the surveyors full access above ceilings and within IPS units, giving confidence on the number of obvious penetrations and conditions of walls for sub-compartments.

The Health Board reviewed the proposals with NWSSP Fire Officers to agree a solution which meets the requirements associated with the enforcement notice to improve the fire safety of the building whilst also managing the impact and effect to patient care during the delivery of the works. This has subsequently been reviewed with MWWFRS who have endorsed the approach of focusing the fire upgrade works to those areas with a direct link to patient sleeping risk i.e. the areas of highest risk.

To support the deliverability of the works, the Hospital Operational Management Team has been engaged in developing a decant strategy which will require wards to be decanted on a ward-by-ward basis maintaining the current operational bed capacity. Theatres and ITU will follow the same approach but will utilise alternative hospital space (e.g. completing works in two theatres at a time so that other theatre provisions can remain operational). Other hospital departments, such as outpatients or Antenatal will remain in operational use with works completed in a phased manner.

The Health Board has kept MWWFRS informed of progress throughout the overall programme of works to secure their support to the proposed action plans. In November 2023 the Health Board formally presented the Fire Management Strategy to MWWFRS. They endorsed the proposals which will result in the remaining enforcement notices being removed (phase two scope of works).

In December 2023, MWWFRS wrote to the Health Board confirming that the action plan and timelines must be adhered to satisfy the requirements itemised within Enforcement notice KS/890/04 or MWWFRS will consider serving a further enforcement notice legally binding the Health Board to comply (Appendix 1).

The focus of this phase of works is to address fire safety matters in patient ward areas, Theatres and ITU and other departments with a patient sleeping risk potential or proximity. It is noted that the Enforcement Notices have a delivery timeline of 31 October 2025. Discussions with MWWFRS have indicated that providing there is good progress against the works the timelines will be aligned with the construction programme.

3.5.5 Lessons Learned from Phase One Works

In developing the programme of works for Phase Two, the Health Board has ensured that any lessons learned from the first phase of works has been incorporated. This has included the specification of fire stopping details and expediting the appointment of key advisors to speed up problem solving and reducing associated preliminary costs:

- Appointing a designer that can been available on site for a minimum of two days per week to ensure that any issues are captured and managed quickly;
- Directly appointing a Fire Engineer to mitigate against any delays;
- Reviewing the procurement strategy to consider potential alternatives to an Option E contract.

3.5.6 Changes to Scope since PBC

It is acknowledged, that due to the nature of the works this BJC cannot describe a fully defined schedule of works and that the programme will need to be responsive to findings as the works progress. Specific changes to scope since PBC are detailed below:

- Works to the main plant spaces were originally anticipated to be part of the Phase Two works. Due to the higher risk potential of a fire starting and to ensure continuity of works for the supply chain partner through the programme, these were brought forward into Phase One. As such this is a reduction in scope since PBC.
- The Phase Two scope of works has increased to reflect the additional items identified by MWWFRS in the additional letter of fire safety matters issued in August 2023 (Appendix 1).

3.6 Business Needs

This BJC demonstrates that HDUHB is at risk of prosecution and potentially the enforced closure of identified buildings for non-compliance with fire enforcement notices. In order to maintain the safety of all staff, patients and visitors at WGH, HDUHB must address all of the areas of concern. The BJC describes the actions that have already been undertaken by the UHB and sets out the required action and associated investment plan to ensure compliance with all fire safety matters as identified by the MWWFRS.

In line with the AHMWW strategy there is a clear direction of travel for the future of the WGH site. The Health Board is also clear that as part of this strategy there is a need to maintain business continuity and a business-as-usual approach whilst the wider strategy is delivered. This requires the UHB to maintain estate and capital requirements to support clinicians to deliver services within the existing model during transition years. The business continuity schemes are

crucial to on-going service delivery across the organisation and any deterioration in service delivery within the existing model will impact on clinical care and patient outcomes as well as affecting the ongoing engagement and positive relationship with the local population.

The strategic drivers underpinning this Business Case are aligned with the organisational strategy:

- Supporting the transformation programme, planning priorities and strategic objectives;
- Ensuring the estate is functionally suitable for purpose;
- Ensuring the estate is compliant with statutory requirements and latest estate standards and guidance where it is possible to do so and those articulated within the Business Continuity (Major Infrastructure) Programme Business Case submitted to Welsh Government.

To maintain safety at the WGH site, the Health Board must comply with the MWWFRS fire enforcement notices by 31 October 2025. Failure to adhere could result in prosecution and potential an enforced closure of buildings with a significant impact on effective delivery of patient services.

3.7 Potential Scope and Service Requirements

The scope of this business case is the programme of works required to ensure all buildings on the Withybush site are compliant with fire safety regulations with the focus of this phase of works being to address fire safety matters in areas with a patient sleeping risk potential or proximity.

Whilst the proposed delivery strategy has taken into consideration the need to minimise the impact on operational service delivery, the nature of the works makes it impossible to avoid a degree of disruption. A stakeholder engagement and liaison strategy will be in place for the duration of the works (as described in the Management Case) to ensure that there is a robust approach to maintaining all essential service requirements.

3.8 Main Benefits

There are two main benefits associated with the overall programme and it is anticipated that these will be fully realised at the end of the Phase Two works:

- Removal of the fire enforcement notices;
- Improved safety of patients, staff and visitors in the event of a fire.

3.9 Main Risks

The main risk associated with this BJC is the failure to comply with the fire enforcement notices / letters of fire safety matters, leading to risk of prosecution and potentially the enforced closure of identified buildings. A detailed risk register has been developed for the project which considers strategic, financial, design and construction risks (see section 7.5.2 and Appendix 5).

3.10 Constraints

The constraints to the delivery of the Phase Two project requiring management are:

- Availability of capital funding;
- A need to comply with the timeframes stipulated by MWWFRS;
- A need to minimise disruption to services during the construction phases

3.11 Dependencies

The project is dependent on the following considerations:

- Availability of the decant ward for commencement of the works;
- MWWFRS continued support to the proposed approach;
- WG and NWSSP SES support to proposed approach;
- Availability of capital funding, noting that WG have already funded the Advanced Works Package, Phase One works and the Decant Ward.

4.0 Economic Case

The purpose of the economic case is to identify the programme that optimises value for money. Having determined the strategic context for the investment proposal and established a robust case for change, this part of the economic case:

- Identifies critical success factors;
- Identifies and assesses the options for delivering service needs;
- Identifies a preferred way forward based on the preferred programme.

4.1 Critical Success Factors

The critical success factors associated with this PBC are:

- Strategic Fit:
  - Compliance with MWWFRS fire enforcement notices.
- Achievability:
  - Timescales for delivery;
  - Deliverability with minimal site constraints or challenges;
  - Potential affordability (capital).
- Supplier Capacity and Capability:
  - Ability of potential suppliers to deliver the required services;
  - How attractive the option is to the supply side.
- Potential Value For Money.

4.2 Main Options

The overarching approach to options development and appraisal was reviewed with NHS Wales Shares Services Partnership Specialist Estates Services (NWSSP SES) in January 2021 where there was agreement that there is only one viable option available to the Health Board which is to undertake the works as required by MWWFRS.

A Business as Usual / Do Nothing option is not seen as a viable approach as there is no mitigation against the identified fire risks leaving patients, visitors and staff at risk of harm. Failure to comply with enforcement notices is likely to result in MWWFRS taking further action including the potentially enforced closure of buildings. As such and in agreement with WG, the BAU option has not been taken forward for further economic / financial appraisal.

Following a full building review, the Health Board and PSCP have made an assessment of the likely scale of works. In discussion with MWWFRS this has been rationalised to focus on the higher risk departments and patient sleeping risk areas. The resulting proposed scope of works and associated delivery programme has been endorsed by MWWFRS. Confirmation of their support has been received, providing the identified works are completed by 31 October 2025 (Appendix 1). Based on discussions with MWWFRS, it is anticipated that the Enforcement Notices will be aligned with the proposed works programme.

4.3 Preferred Way Forward

The UHB must comply with the requirements of the fire enforcement notices resulting in only one viable option (i.e. the Do Minimum option). The Phase Two scope of works has been endorsed by MWWFRS and represents an option which ensures compliance with the Fire Enforcement requirements and sustains the hospital for the next 7 – 10 years (within the context of the AHMWW Strategy).

The scope of fire safety upgrade works is described in detail within the Estates Annexe which accompanies this BJC and addresses the risks in the following areas:

- Wards (below level 2);
- Theatres;
- ITU;
- Non-ward areas with a direct relationship to patient sleeping risk, for example departments located below ward areas (with works taking place out of hours where practicably possible).

The capital and revenue implications of the preferred way forward are described in Section 6.0 (Financial Case) and the timescales are as described in Section 7.0 (Management Case).

5.0 Commercial Case

5.1 Procurement Strategy

The Health Board has procured the design and construction elements of the proposed scheme through the NHS Building for Wales framework. The Supply Chain Partner team includes design consultant services. It is this team who will develop the current surveys and provide a cost based upon agreed delivery approach and methods. The Supply Chain Partner and associated designer will be the Principal Contractor and Principal Designer for the purpose of the Construction (Design and Management) Regulations 2015 (CDM 2015). The procurement route aims to:

- Provide the opportunity to reduce timescales;
- Provides greater cost and time certainty;
- Improve Design;
- Improve Construction Quality.

The initial tender enquiry was issued using the framework standard NEC Option C contract (target cost) with interviews scheduled for 7 October 2020. The project is complicated in that it is impossible to assess the quantum and full nature of the works required in all areas prior to the business case submission due to the sheer extent of survey and disruption that would be caused to the hospital. The Supply Chain Partners (SCP) felt that, due to the impossibility of accurately defining and therefore costing the works, the risks associated with the contract were too high and no bids were returned.

Following consultations with Welsh Government and NHS Wales Shared Services Partnership Specialist Estates Services (NWSSP SES), a revised tender approach based on NEC Option E (cost reimbursable contract) was agreed and the tender process was rerun with a closing date of 26 October 2020. Two tenders were received from Interserve and Integrated Health Projects (IHP).

Following a robust interview process on 5 November 2020, IHP were selected and appointed as the successful PSCP for the programme (Phase One and Phase Two).

5.1.1 Contract Type

Current Contractual Arrangements with all parties have been entered into using the NEC contract as prescribed under the Framework. Due to the nature of the project, an Option E Contract (cost reimbursable contract) was negotiated. This was a change to the framework standard of the NEC Option C form and as such has required substantial amendments and re-writing. A series of contract negotiation meetings were held between HDUHB, NWSSP SES, IHP and the respective legal parties prior to the agreement being made and contract signing.

Other than the change to NEC Option E, there are no key contractual clauses over and above the standard framework clauses, although requirements for AEDET, NEAT, BIM and BREEAM in relation to this project have been amended through local contract amendment.

5.2 Service Requirements and Outputs

This BJC states a requirement for the delivery of the Fire Safety Precautions scheme under the NEC3 Engineering & Construction (ECC) Form of Contract (Option E) and Designed for Life: Building for Wales Framework.

A series of design proposals are available to support the functional content, based on Health survey reports and building notes and latest available guidance. A full copy of the latest version of the design proposals is included in the Estates Annex.

The Phase Two works focuses on the fire safety matters identified by MWWFRS in areas with a patient sleeping risk potential or proximity (i.e. mainly in ward and department areas).

A phasing methodology and approach to delivering the works has been agreed in principle with the hospital management team and is further detailed within the Estates Annex. Works will progress in Ward, ITU and Theatre environments with spaces decanted to maintain effective hospital operations. Construction works will be completed on an area-by-area basis maintaining patient services.

5.3 Commercial Arrangements

This section details the procurement approach and associated commercial arrangements. The preferred funding option for the investment is via Welsh Government Funding as public funding is considered the only viable option for this scheme.

5.3.1 Contractual Arrangements

In consultation with NWSSP SES, the Health Board have elected to adopt the NEC Option E contract and the HDUHB is currently committed to that for the BJC stage. Beyond this point WG and HDUHB have flexibility to modify current arrangements and the form of contract utilised to give added assurance Value for Money is being achieved at all times. The current Option E contract is a cost reimbursable contract in which the contractor is reimbursed the actual costs they incur in carrying out the works plus an additional fee. Whilst this does place a greater financial risk on the Health Board, this contract type tends to be used where the nature or scope of the work cannot be properly defined at the outset, and the risks associated with the works are high. Option E was therefore felt to be the most appropriate contract type for this scheme, although a review of these arrangements will be considered as part of the proposed BJC scrutiny procurement workshop. The outcome of this work may lead to alternative contractual route being followed for part or all of the Phase Two construction work. This could also include the use of an alternative framework (not Designed for Life Building for Wales),with appropriate arrangements developed for consultant appointments to support any revised approach. The outcome also needs to ensure that Value for Money is delivered in progressing this major investment and the HDUHB is fully supportive of this and will work closely with NWSSP-SES in moving this forward.

5.3.2 Payment Arrangements

The Health Board have made, and will continue to make, payments to the externally appointed team in respect of products and services as follows:

- The contract will be managed by Hywel Dda University Health Board under the NEC3 Option C Target Cost Contract with regards to the Project Manager and Cost Advisor appointments, in line with 'Building for Wales' Framework terms and conditions;
- The contract will be managed by Hywel Dda University Health Board under the NEC3 Option E Cost Reimbursable with regards to the Supply Chain Partner appointment in line with 'Building for Wales' Framework terms and conditions.

The Project Bank Account is in place.

5.3.3 Proposed Charging Mechanisms

At the completion of the projects there will be no ongoing service arrangements provided by the Procurement partner and therefore no recurring charges associated with project.

5.4 Quality Assurance / Standards Compliance

Upgrade works will be designed and installed in line with HTM 05-02 where reasonably practicable. Where total compliance cannot be achieved, engineered judgement from competent fire safety specialists will be drawn upon to ensure compliance with the functional requirements of the regulations can be achieved. A full derogations schedule is included within the Estates Annex accompanying this BJC.

Due to the nature of the project, the existing building, and project scope of works, BIM level 2 will not be provided. A Common Data Environment and naming conventions of which the client team will be involved with, will be in place.

Following completion of the works, there will be a comprehensive fire and evacuation strategy for the Withybush General Hospital (including Residential Accommodation Blocks) and Bro Cerwyn / St Brynach Day Hospitals (including St Caradog's & St Non's Wards).

Planning permission is not required due to the nature of the works. AEDET, NEAT and BREEAM are also not relevant to this scheme.

5.5 Personnel Implications

As this procurement is for construction only there are no Transfer of Undertakings (Protection of Employment) (TUPE) and Retention of Employment (RoE) implications.

The internal project management arrangements and requirements for specialist advice to support the design, procurement and delivery of the project will be reviewed on an ongoing basis to ensure that adequate resources are available to deliver to the quality, cost and timelines required. The resource implications for the work packages are identified in the cost forms.

5.6 Potential for Risk Transfer

The general principle is that risks should be passed to "the party best able to manage them", subject to value for money (VFM). The following table indicates where the responsibility for risk lies between public and private sector:

Risk category	Potential Allocation		
	Public	Private	Shared
Design Risk	✓		
Construction and development risk	✓		
Transition and implementation risk	✓		
Availability and performance risk	✓		
Operating risk	✓		
Variability of revenue risks	✓		
Termination risks	✓		
Technology and obsolescence risks	✓		
Control risks	✓		
Residual value risks	✓		
Financing risks	✓		
Legislative risks	✓		
Other project risks	✓		

Table 10: Risk Allocation Matrix

The HDUHB has agreed with WG and Shared Services that due to the difficulty in scoping the works contained in this Phase One BJC, that an additional risk allocation, over and above the project risk allocation, will be held centrally by WG. The estimated cost of over boarding walls to achieve the required fire rating are included in this separate Risk Contingency and is excluded from the Works Cost. The mechanism for accessing this risk fund will be agreed with WG.

5.7 Accountancy Treatment

It is estimated that the impact on the Balance Sheet of the Health Board will be an increase in the value of fixed assets by £7,082,572.

6.0 Financial Case

6.1 Capital Costs

The purpose of this section is to set out the financial implications of the proposed solution identified in the Economic Case and the proposed deal as described in the Commercial Case.

The capital costs of the proposed solution outturn at an estimated cost of **£23,743,209** including VAT. This includes the quantified risk contingency held by the Health Board and an additional quantified risk contingency to be held by WG as summarised in Table 11 below. The cash flow is included in Table 12. Capital cost forms are included at Appendix 3.

Element	Capital Costs
Works Cost	£9,660,480
Fees	£3,244,874
Non-works Costs	£704,454
Equipment	N/A
Quantified Risk Contingency	£1,334,192
Project Sub Total (excl. VAT)	***£14,944,000***
VAT	£2,685,356
Project Outturn Cost (inc. VAT)	**£17,629,356**
Additional Quantified Risk Contingency (Held by WG)	£5,094,878
VAT	£1,018,976
***Risk Contingency* Total (inc. VAT)**	**£6,113,854**
Forecast Project Outturn Cost	**£23,743,209**

Table 11: Indicative Capital Costs

2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Total
£712,135	£620,628	£10,524,077	£10,862,779	£935,522	£88,069	**£23,743,209**

Table 12: Indicative cash flow for capital expenditure

6.1.1 Capital Cost Assumptions

The following assumptions have been made in developing the capital costs for this BJC:

- Capital costs – costs are escalated with published and assessed inflation for the duration of the project;
- Professional Fees – based on allowance of 33.59% of works costs;
- Location Factor – 1.00 (all rates / costs indexed to site location);
- Risk Contingency – based on quantified risk register (Appendix 5) equating to 9.8% of combined works, fees and non-works costs;
- A planning contingency has not been included;
- VAT: with the exception of professional fees (20%), no allowance has been made for VAT recovery. An assessment will be made of potential VAT recovery with the Health Board's VAT advisors with opportunities for VAT recovery maximised;
- An additional quantified risk contingency (to be held by WG) has been included in relation to the anticipated additional risk level associated with a project of this nature. This equates to 34.09% of BJC Project Costs;
- The internal project management costs associated with the development of this programme business case have been included in the professional fees.

6.1.2 Changes in Capital Cost Assumptions from PBC

At PBC stage (March 2020), a series of technical surveys were undertaken to allow initial assessments and assumptions of the required works to be made. It was acknowledged that the full extent of works could not be fully determined at that stage and that more detailed analysis of requirements at BJC stage would refine the assumptions. As described in section 3.5.6 there have been changes in the Phase Two scope of works which have reflected lessons learnt during the Phase One programme, therefore, a direct comparison in cost assumptions from PBC has not been included.

6.2 Revenue Implications and Affordability

For the purposes of this business case it has been assumed that there will be no additional recurrent pay and non-pay costs, with the exception of capital charges attributable to the delivery of the programme. The Health Board's assumption is that capital charges including increased depreciation and any impairment charges on completion will be funded by Welsh Government. The estimated Annually Managed Expenditure (AME) Impairment charge is £16.7m and annual Departmental Expenditure Limit (DEL) depreciation charge is £118k.

6.3 Funding Arrangements

This project requires further funding from the Welsh Government NHS All Wales Capital programme.

7.0 Management Case

This section of the BJC demonstrates the approach that HDUHB will take to support the delivery of the programme in accordance with best practice. The programme management arrangements are aligned with those described in the Estates Infrastructure Programme Business Case ensuring that the Health Board is able to make progress against the identified key priority areas but also have sufficient flexibility to respond to changing requirements.

7.1 Programme Management Arrangements

The programme management structure within which this project sits, is aligned with the Business Continuity (Major Infrastructure) Programme Approach which has been formally constituted and established in line with best practice (Managing Successful Programmes) and will be managed in accordance with PRINCE 2 methodology.

The programme of works identified within this business case will be managed via the WGH Delivery Team with direct reporting into the Project Board and the Capital Sub-Committee (CSC). A fortnightly Fire Enforcement Control Group has been established to ensure delivery of the agreed action plan.

The Estates Infrastructure Programme Board will provide strategic direction in order to develop the specific capital investment proposals within this Business Justification Case and ensure that these are aligned with the Business Continuity (Major Infrastructure) PBC. Progress will be reported to the Health Board via the Capital Sub-committee as illustrated in Figure 2 below.

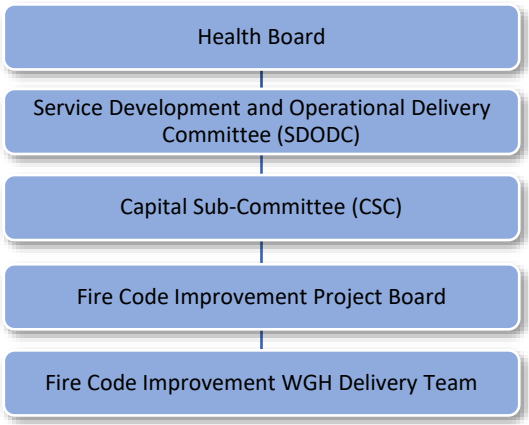

Figure 2: Governance Structure

7.1.1 Project Roles and Responsibilities

The Health Board Director of Operations is the formal Senior Responsible Officer (SRO) and will ensure that the programme meets its overall objectives and delivers its expected benefits. The Director of Estates, Facilities and Capital Management is the Programme Director who will be responsible for the successful delivery of all projects within the programme. The Capital Development Manager is the Estates lead overseeing operational delivery of the project.

Role	Responsibility
Project Board	Responsible for successful delivery of the Programme to meet requirements of MWWFRS • Monitor programme / project plan for completion at key stages in capital investment process and monitor on a monthly or as required basis; • Provide strategic leadership and direction to the Delivery Team; • Approve project plan for completion of key stages and monitor on behalf of HDUHB; • Provide a challenge mechanism for the project; • Receive project reports and outputs ensuring sufficient detail is provided; • Progress strategic specific issues and monitor the associated work programmes; • Support the development of technical briefs and outline design in conjunction with the Delivery Team; • Ensure that there are adequate project management arrangements in place; • Brief WG / MWWFRS on a regular basis to ensure good communication and understanding of project; • Monitor capital costs; • Support and guide the development of the technical documentation for the BJC in support of the delivery team and approval of the Health Board.
Delivery Team	Responsible for delivering the projects • Develop programme / project plan for completion at key stages in capital investment process and monitor on a monthly or as required basis; • Implementation of project plan activities on a daily basis; • Develop and monitor project planning, phasing and sequencing programme; • Manage associated work programme; • Provide operational and technical lead for the site; • Communicate with the site operational managers and master planning team; • Ensure suitable project management arrangements are in place; • Implement project systems and controls e.g. risk, change management; • Issue regular progress reports to the Programme Board; • Develop capital costs; • Develop BJCs; • Participate in internal and external audit processes.

Table 13: Programme Roles and Responsibilities

7.1.2 Use of Special Advisors

The following team of specialist advisors has been appointed by the Health Board.

Advisor	Responsibility
Mace Ltd	Project Management
Lee Wakemans Management	Cost Advisor
Strategic Healthcare Planning	Business Case Author
Integrated Health Projects (IHP)	PSCP and Contractor
HLM Architects	Architect
Hydrock Consultants	M&E and Civil & Structural Engineer
Hydrock Consultants	Fire Engineer
Imtech	Principal M&E Installer

Table 14: Specialist Advisors

7.2 Programme Milestones

Given the locations and concealed nature of the works, full exposure of the as-built arrangements and conditions will be required to fully assess the scope of works and establish accurate timescales for their execution. Temporary or permanent diversions to existing services may also be required to facilitate access to the works. Indicative allowances and assumptions have therefore been made for certain elements.

The programme takes account of these assumptions and is built up using quantitative analysis of surveyed information for representative work sections and relative allowances for other sections based on size and complexity.

A detailed programme based on an overall contract duration of 108 weeks is included in Appendix 4 with the key milestones summarised in Table 15 below.

Programme	Milestone
Business Justification Case submission to WG	March 2024
WG Scrutiny and BJC Approval	May 2024
Phase Two Works	August 2024 – July 2026
Phase Two Contract mop up (demobilisation)	August 2026

Table 15: Programme Milestones

7.2.1 Phasing Strategy

The programme has been discussed with hospital stakeholders and a detailed approach to the works has been developed following feedback. Engagement will continue throughout the construction phase with monthly updates and the preparation of lookahead programmes that will clearly identify current and forthcoming works in the short term.

For the main hospital building, each of the floors are divided into manageable works sections. Dedicated teams will carry out the works moving progressively from one section to the next in a focused and efficient manner. Theatre works have been phased to follow the completion of works to the decanted wards to maintain patient flow where possible and to minimise disruption to the operation of the hospital.

As much as possible works are sequenced concurrently on lower ground floor, Ground Floor and First Floor.

The number and complexity of works sections on the Ground floor, requires these to progress concurrently with each of the first and lower ground floors in turn. The start of the ground floor is purposely constrained to ensure a reasonable period of familiarisation and learning before the deployment of additional teams.

Phase	Duration	Indicative Dates
Ward Areas (inc ITU)	48 weeks	16 August 2024 – 12 August 2025
Ground Floor	54 weeks	16 August 2024 – 18 September 2025
Lower Ground Floor	37 weeks	16 August 2024 – 26 May 2025
Theatres	33 weeks	12 August 2025 – 17 April 2026

Table 16: Phasing Plan Indicative Milestones

7.3 Arrangements for Contract Management

This will be administered under the NEC3 Engineering & Construction (ECC) Form of Contract, Option C Target Contract with Activity Schedule, with standard Designed for Life: Building for Wales Framework amendments for both the Project Manager and Cost Advisor.

For the design and construction contract for the Supply Chain Partner, Integrated Health Projects (IHP), this will be administered under the NEC3 Engineering & Construction (ECC) Form of Contract, Option E Cost Reimbursable Contract.

7.4 Arrangements for Change Management

The Health Board recognises the challenges associated with delivery of these works whilst maintaining an operational site.

The works will be implemented in a systematic way that causes the least disruption to services. The project structure has been established to implement the necessary changes and ensure operational management leadership remains central to this.

To take this process forward working groups have been established during the development of the BJC involving the key hospital managers and nursing heads, or delegated leads. These groups will be fully consulted with regards to any changes to the works that may impact the provision of health services on the Withybush site. Any fundamental changes to the project scope or timeline will be authorised in advance by the Project Director and established Project Board.

7.5 Risk Management

There are a number of objectives from the implementation of a robust risk management process. The key objectives are as follows:

- Secure predictability: by analysing the risks, greater insight can be gained into the likelihood of successfully delivering the project within budget, on programme and to the required quality;
- Manage the risk exposure proactively: a clear understanding of the threats and opportunities will ensure that robust mitigation strategies can be put in place and opportunities are realised. This significantly reduces the chance of failure through a constant reassessment of the project's risk profile;
- Define mitigation strategies: provide clear mitigation strategies and action plans which are to be addressed by the appropriate owners;
- Ensure opportunities are both identified and realised;
- Address contingency management: ensure that the contingency of both client and contractor allowances are managed, providing adequate cover for identified risks. If the opportunity arises to release contingency back in to working capital this should be addressed in line with the requirements of the project.

Risk management helps with matters of cost control and with overall project delivery by assessing potential problems and formulating mitigation measures through the implementation of a structural approach so that:

- Potential risks to a project are identified;
- Management action plans are drafted as a response to the risks;
- Contingencies can be allocated to reflect identified risks;
- An audit trail is produced for the decisions taken;
- There is increased team understanding of the project and of the implications of certain courses of action;
- Risk events are responded to more swiftly and effectively.

Risk management will be an ongoing project control measure that encourages all participants to be proactive in identifying areas of concern and potential risk that can, when identified at an early enough stage, be managed to reduce / eradicate the impact on the programme.

A comprehensive risk register is in place which has been ratified following a workshop including all of the delivery team members, HDUHB estates and operations team and importantly, the key stakeholders representing the hospital nursing / operational teams.

The risk register has been priced to ascertain the level of risk allowance required.

It is proposed that the BJC includes for a reasonable level of contingency (wholly owned by the Health Board) with a further sum allocated to the project but held by the Welsh Government under Group 3 funding, being made available in the event that it is required. The mechanism for accessing this funding will be agreed with WG.

7.5.1 Risk Register

The risk register is a management tool that logs potential risks to the programme, primarily driven by health and safety, cost, programmes delays or any other risks that may be relevant to its successful completion.

The register is a live document and will be updated at regular intervals in Project Team and Board meetings as appropriate. The Project Manager will manage and retain ownership of the risk register throughout the programme. The risk register will be updated by both adding newly identified risks and reallocating risk funds where activities no longer pose risk. The risk register records and logs details of any item or event which is considered by the project team to put the objectives of the programme at risk (Appendix 5).

7.5.2 Main Risks

The main risks were reviewed at a workshop in November 2023 with clinical and operational service representation. The highest rated risks (risk score 16 and above) are identified in the following table:

Risk	Mitigation Measure
Strategic Risks	
Scope of works not fully established / incomplete surveys during BJC stage (e.g. vertical compartmentation) to inform the design, programme and cost due to access to only a sample of locations across hospital.	Base design on agreed scenarios and assumptions from survey output. E.g. using findings from ward surveys taking worst case scenario for number of penetrations etc and applying across other areas. Suitable allowances to be agreed with the SCP within cost plan and project risk contingency in line with assumptions regarding out of hours works or phased works or decanted phasing of works.
Hospital activities impact on proposed phasing / Hospital unable to release work areas in accordance with the programme due to clinical needs of patients. Anticipated decant strategy / decant ward does not happen as expected.	Early engagement with the Hospital and Management Teams to discuss requirements and expectations as well as define phasing strategy. Ongoing coordination between project team and HB during construction phase. P2 works planned on basis of internal decant ward (completion anticipated March 2024). Non ward areas works phased within areas or out of hours.
Other hospital works concurrent with and disrupting works.	Early engagement with the Hospital. Internal HB communication regarding impact of potential other hospital projects. HB to provide ongoing updates as elements are known. Example issue of works programmes provided to SCP.
Construction Risks	
There is a risk that unknown hazardous materials will be discovered in the existing buildings.	Identification of findings to client team and if necessary, execute additional Asbestos etc surveys before commencement of works. Time and cost allowance to be made in BJC. HB to release existing Asbestos registers. Unknown scenarios, i.e. area which can't be accessed to survey in advance, to be managed through contract administration.
Live services impeding the Works and inability to isolate or relocate	Surveys when access available to areas. Unknown scenarios, i.e. area which can't be accessed to survey in advance, to be managed through contract administration or approved derogation item as with Phase 1 examples. HB to provide service osolations confirmations.
Financial Risks	
Capital costs underestimated	Review as part of BJC development, including surveys, design, programming all influencing cost. Supported by robust project risk contingency fund similar to Phase 1 to be agreed with HB.
Increased costs due to unknown works	Financial risk strategy agreed with WG. Contractor to procure the materials in a timely manner. Option E so HB take cost risk.

Table 17: Main Risks

7.6 Benefits Realisation

The main benefit from this project will be HDUHB compliance with fire enforcement notices avoiding closure of buildings and ensuring delivery of patient services can be sustained. Additional benefits in relation to reduced backlog maintenance and a comprehensive concise fire strategy for the site will also be realised.

7.7 Programme Assurance

7.7.1 Risk Potential Assessment

The impact of the programme has been scored against the risk potential assessment (RPA) model (Appendix 6). The project has been assessed as low risk which will continue to be monitored via the Project Board and escalated as required.

7.7.2 Equality and Health Impact Assessment

Due to the nature of this BJC, the Health Board has determined that an Equality and Health Impact is not required. Ensuring that buildings are compliant with fire safety regulations will improve the safety for all patients, staff and visitors to the hospital.

7.7.3 Integrated Impact Assessment

An Integrated Impact Assessment (IIA) has been completed by the Health Board to determine impact on service and workforce (Appendix 7).

As an infrastructure upgrade project there are no long-term impacts anticipated, however there will be disruption to services during the delivery phase of the works. The aim is to minimise this impact and a communications plan is being developed to keep staff informed throughout the duration of the works.

7.7.4 Integrated Assurance and Approval Plan

Capital audit will be undertaking audits of the scheme in accordance with the HB Audit and Risk and Assurance Committee requirements. This will provide assurance on the effectiveness of governance and risk management arrangements and will maintain an appropriate financial focus (Appendix 8).

7.8 Post Project Evaluation

The Programme Board will ensure that post project evaluation will be undertaken in accordance with Welsh Government requirements.

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

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

PPE also sets in place a framework within which the benefits realisation plan can be tested to identify which benefits have been achieved and which have not. NHS guidance on PPE has been published and the key stages which are applicable for this project are:

- Evaluation of the project procurement stage;
- Evaluation of the various processes put in place during implementation.

7.8.1 Stage 1 Evaluation: Project Procurement

The evaluation at this stage will examine:

- The effectiveness of the project management of the scheme;
- The quality of the documentation prepared by HDUHB;
- Communications and involvement during procurement;
- The effectiveness of advisers utilised on the scheme;
- The efficacy of NHS guidance in delivering the scheme;
- Perceptions of advice, guidance and support from:
    - Welsh Government;
    - NWSSP – Estates.

It is planned that this evaluation will be undertaken within four months of BJC approval.

7.8.2 Stage 2 Evaluation: Implementation

The evaluation at this stage will examine:

- The effectiveness of HDUHB project management of the scheme;
- The effectiveness of the PSCP project management of the scheme;
- Communications and involvement during commissioning;
- The effectiveness of the joint working arrangements established by the project partner and the project team;
- Support during this stage from other stakeholder organisations – Welsh Government, Welsh Health Estates and any others as appropriate;

It is planned that this evaluation will be undertaken six months following works completion.

7.9 Contingency Plans

There are no contingency plans should this project fail to achieve approval. The Health Board are at risk of receiving further enforcement notices which would impact on delivery of all hospital services.

8.0 Conclusion and Recommendations

This business case sets out the required actions for Hywel Dda University Health Board to be compliant with fire safety regulations and remove the remaining enforcement notices.

The business case has described the proposed approach to the works which aims for completion of the Phase Two works by August 2026 (dependent on works commencing in August 2024).

The Health Board must comply within the stipulated timeframe set by the Mid and West Wales Fire and Rescue Service or risk prosecution and ultimately the potential closure of the Withybush General Hospital and / or associated sites. It is noted that the delivery programme extends the timelines stipulated within the Enforcement Notices, however it is anticipated that MWWFRS will align the notices with the proposed programme of works.

It is requested that Welsh Government:

- Approve this business case based on the proposed cost and approach to delivery of work;
- Acknowledge the MWWFRS expectations for completion of works by October 2025.

9.0 Glossary of Abbreviations

Abbreviation	Definition
AEDET	Achieving Excellence Design Evaluation Toolkit
AHMWW	A Healthier Mid and West Wales: Our Future Generations living well
AME	Annually Managed Expenditure
BAU	Business As Usual
BGH	Bronglais General Hospital
BIM	Building Information Modelling
BJC	Business Justification Case
BREEAM	Building Research Establishment Environmental Assessment Method
CDM	Construction (Design and Management)
CSC	Capital Sub-Committee
CSF	Critical Success Factor
DEL	Departmental Expenditure Limit
ECC	Engineering and Construction
FDS	Fire/Smoke Dampers
GEM	Generic Economic Model
GGH	Glangwili General Hospital
HBN	Health Building Note
HDUHB	Hywel Dda University Health Board
HSDU	Hospital Sterilisation and Disinfection Unit
HTM	Health Technical Memoranda
IHP	Integrated Health Projects
IIA	Integrated Impact Assessment
IM&T	Information Management and Technology
MWWFRS	Mid and West Wales Fire and Rescue Service
NEAT	NHS Environmental Assessment Tool
NEC	New Engineering Contract
NHS	National Health Service
NWSSP SES	NHS Wales Shares Services Partnership Specialist Estates Services
PBC	Programme Business Case
PPE	Post Project Evaluation
PPH	Prince Philip Hospital
PSCP	Principle Supply Chain Partner

RAAC	Reinforces Aerated Autoclave Planks
RoE	Retention of Employment
RPA	Risk Potential Assessment
SCP	Supply Chain Partner
SDODC	Service Development and Operational Delivery Committee
SES	Specialist Estates Services
SRO	Senior Responsible Officer
TUPE	Transfer of Undertakings (Protection of Employment)
UHB	University Health Board
VAT	Value Added Tax
VFM	Value for Money
WGH	Withybush General Hospital
WG	Welsh Government
WHTM	Welsh Health Technical Memoranda

10.0 Appendices

1. MWWFRS Letters of Fire Safety Matters
2. HDUHB Fire Safety Action Plan
3. Cost Report
4. Programme
5. Risk Register
6. Risk Potential Assessment
7. Integrated Impact Assessment
8. Integrated Assurance and Approval Plan

Hywel Dda University Health Board

Withybush Hospital – Fire Precaution Upgrade Works

Phase Two Business Justification Case

Appendices

Appendices

1. MWWFRS Letters of Fire Safety Matters
2. HDUHB Fire Safety Action Plan
3. Cost Report
4. Programme
5. Risk Register
6. Risk Potential Assessment
7. Integrated Impact Assessment
8. Integrated Assurance and Approval Plan

Appendix One – Letters of Fire Safety Matters

Gwasanaeth Tân ac Achub
Canolbarth a Gorllewin Cymru
Mid and West Wales
Fire and Rescue Service

Prif Swyddog Tân | Chief Fire Officer
Roger Thomas BA(Hons), MSc

tancgc.gov.uk
mawwfire.gov.uk

The Chief Executive
Corporate Offices
Hywel Dda Health Board
Hafan Derwen
Ystwyth Building
Jobs Well Road
Carmarthen
SA31 3BB

Gofynner am/ Please ask for: Watch Manager K Steele

Ext No: 3367

E-bost/E-mail: k.steele@mawwfire.gov.uk

Fy Nghyf/My Ref: BFS/KS/00114719

Dyddiad/Date: 24 August 2023

Dear Sir

The Regulatory Reform (Fire Safety) Order 2005

Letter of Fire Safety Matters

Premises: HYWEL DDA UNIVERSITY HEALTH BOARD, WITHYBUSH HOSPITAL, WITHYBUSH, FISHGUARD ROAD, HAVERFORDWEST, SA61 2PZ

Areas of the hospital referred to within this letter:

Block 4 & Block 5 including ITU.

I visited your premises on 21 August 2023 and evaluated the fire safety provided. You have an ongoing duty to ensure the safety of people. The attached schedule sets out what you need to do.

Timescale for Completion

You should complete the work outlined in the schedule as soon as possible, balancing the need for safety against the demands on your business or undertaking. I will visit again and will contact you in approximately 6 month(s) (from the date of this letter) to arrange my next visit. You should complete the actions and outcomes before that visit.

Consequence for Non-compliance

If you do not do the work in the schedule before my next visit (or I find that safety provisions have worsened), the authority may serve an enforcement notice on you. An enforcement notice would legally bind you to do the work.

Route to Challenge

You can clarify or challenge what you need to do. If you have any feedback you wish to share, please access the Complaints and Compliments section found on our website: https://www.mawwfire.gov.uk/eng/about-us/access-to-information/compliments-comments-and-complaints/.

Fire Safety Management

The schedule sets out what you need to do to improve fire safety. Taking this advice will help you to sustain those improvements.

Alternative Solutions

If you want to use a different solution to bring about safety from fire, please contact me to discuss an action plan. An action plan might enable you to apply an equally appropriate safety solution to better meet your needs. Any alternative solution you propose must meet the 'outcome(s)' stated in the schedule.

Recommendations

The matters in the Schedule are obligations under The Regulatory Reform (Fire Safety) Order 2005, and as, abovementioned, will, if necessary be made requirements in an Enforcement Notice.

The following matters are *recommended* to further improve fire safety in your premises.

- It is recommended that the storerooms in the under croft at the rear of the mortuary are kept locked shut, it was also note in these store rooms there was a considerable amount of bird excrement which could be a health hazard, it was also note that there was items stored there from the Xray department these items should be removed and disposed correctly. The area around the rear mortuary doors had an accumulation of combustible debris this debris could assist the spread of fire in this area.

Yours faithfully

Watch Manager K Steele
Authorised Fire Safety Regulator
On behalf of the Mid and West Wales Fire and Rescue Authority

Steve.Moore2@wales.nhs.uk
Andrew.A.Carruthers@wales.nhs.uk
HIW@gov.wales
Rob.Elliott@wales.nhs.uk
Janice.cole-williams@wales.nhs.uk
Richard.Jupp2@wales.nhs.uk
Daniel.Dyer@wales.nhs.uk

Important Information – schedule referred to in letter

Notes to this schedule: 11

The government guidance most suitable to your premises is GG10 which can be found at http://www.cfoa.org.uk/19512

Before certain changes are made to the premises, you may have to apply for approval from statutory bodies and/or others having interest in them. Should changes or alterations be required, approval should be sought from the relevant body. For example, you may have to apply for approval from a Building Control Body http://www.legislation.gov.uk/uksi/2010/2214/regulation/3/made or in relation to a Heritage Premises you should consult CADW, https://cadw.gov.wales/advice-support.

ITEM 1

Art 8 wedging doors	
Reason	The standard of vertical fire separation provided is not maintained adequately. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. It was noted in the recent inspection that doors to offices storerooms and some staff areas were being wedged open, for example the main office in the corridor leading to the ITU This is contrary to Article 8.
Required Action	Wedges, hooks and any other devices in use at the present time as a means of holding the self-closing doors in the open position shall be removed to ensure that the doors are effectively self-closing.
Outcome	This work is necessary to reduce the risk of the spread of fire

ITEM 2

Art 8 charging items on means of escape	
Reason	The standard of horizontal fire separation provided is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.
Required Action	

	Charging of battery devices must not be done within the means of escape, remove all charging items into a suitable room with a fire door. The means of escape must not be used for storage or charging of electrical items.
Outcome	This work is necessary to reduce the risk of spread of fire.

ITEM 3

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Art 8 Electrical items on means of escape	
Reason	The standard of horizontal fire separation provided is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.
Required Action	The storage and use of electrical equipment/devices within the means of escape is not permitted, remove all electrical devices into a suitable room with a fire door. • Fridge (behind the nurse station WD1) • Photocopier. (next to the nurse station WD3 & 4) • Laptop charging units (noted mounted in various ward corridors / department corridors). The means of escape must not be used for storage or charging of electrical items.
Outcome	This work is necessary to reduce the risk of spread of fire.

ITEM 4

Art 8 reduce the risk from fire

Reason	Combustible materials were too close to an ignition source. This means that fire could easily break out, which could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.
Required Action	Relocate items within the Ward 1 treatment room to improve the rooms safety. There was charging of items and a fridge located next to an oxygen point. This room requires movement of the items to another area and or the oxygen and vacuum point isolating to reduce the risk from fire to an acceptable level.
Outcome	This work is necessary to reduce the risk of fire.

ITEM 5

Art 8 Compartmentation	
Reason	The standard of compartmentation provided in the building is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.
Required Action	During the inspection breaches in compartmentation were identified within the endoscopy storeroom which houses the photocopier and a large air conditioning unit. The breaches in compartmentation would not support the existing evacuation strategy. In the event of fire, breaches in compartmentation, will allow fire and smoke to spread unchecked throughout the building. This would have an impact on the means of escape and render the evacuation strategy of the building ineffective. All breaches in compartmentation should be fire stopped to provide the appropriate fire resistance in accordance with

	building regulations. Compliance with this or an equivalent standard will normally satisfy the requirement. I am happy for this to item to be address in the Phase 2 enforcement works Scheme.
Outcome	This work is necessary to reduce the risk of spread of fire.

ITEM 6

Art 14 Emergency lighting	
Reason	In the event of danger, it is not possible for relevant persons to evacuate the premises as quickly and as safely as possible. There is inadequate emergency lighting within the kitchens on the LGF This is contrary to Article 14.
Required Action	Provide an emergency lighting system (which is to be independent of all other systems), to illuminate • Block 4 LGF Kitchens On completion of the emergency lighting system, the commission certificate is to be completed by a competent person and a copy made available to the Fire and Rescue Authority. This system is to be designed and installed in accordance BS5266-1:2016 Compliance with this or an equivalent standard will normally satisfy the requirement.
Outcome	

	This work is necessary to ensure that the means of escape can be safely and effectively used whenever they are needed.

ITEM 7

Art 8 Air Transfer grille	
Reason	The standard of horizontal fire separation provided is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.
Required Action	Where a fire door is required to be fitted with an air transfer grille, it should only be fitted with one that is capable of sealing both by thermal initiation and by interface with smoke sensors either directly or via a fire alarm panel. This was noted in rooms SF176 & SF166 but applies to any of this type of system fitted to a fire rated door within the means of escape where the room it is fitted to contains a fire risk. The air transfer grill should conform to a relevant standard e.g.BS 8214:2016. Fire doors should conform to a relevant standard e.g. Appendix B (including Appendix C Table B1) of Approved Document B Volume 2 Buildings other than dwelling houses. Compliance with these standards will normally satisfy the requirement
Outcome	This work is necessary to reduce the risk of the spread of fire

ITEM 8

Art 8 Fire Door	
Reason	The standard of horizontal fire separation provided is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.
Required Action	A fire door should be installed providing 30 minutes fire resistance. Panels or partitions above or at the sides of the

	doors should provide a similar degree of fire resistance in the following location: • Between the sluice room and electrical room within Ward 4 Fire resisting doors need to be fitted with • A self-closing device • Intumescent strips and smoke seals. • Three brass/steel hinges. Fire doors should conform to a relevant standard e.g. Appendix B (including Appendix C Table B1) of Approved Document B Volume 2 Buildings other than dwelling houses. BS 8214:2016 - timber-based fire door assemblies – Code of practice Compliance with this or an equivalent standard will normally satisfy the requirement
Outcome	This work is necessary to reduce the risk of spread of fire.

ITEM 9

Art12.2	
Reason	The risks from dangerous substances to relevant persons in the premises have not been eliminated, substituted and/or reduced so far as is reasonably practicable. Flammable items were noted on the shelves of the Ward 4 store cupboard with other consumables increasing the risk of fire within this area. This is contrary to Article 12.
Required Action	Ensure all flammable items are stored in an safe manner. Flammable items are required to be stores in a metal flame resistant cupboard.
Outcome	This work is necessary to reduce the risk of fire.

ITEM 10

Art14	
Reason	The distance from the dead end situation in the Staffroom within the theatres area to the nearest place of relative safety is so great that fire and smoke can overtake people before they reach the exit. This is contrary to Article 14.
Required Action	Reduce the risk within this area to as low as practicable by: Either reconfigure the area by moving the kitchen into the staff room or make up the corridor so it provides adequate fire resistance to allow the relevant person to effect a safe exit.
Outcome	This work is necessary to provide sufficient escape routes (corridors, stairs and doors) for people

ITEM 11

Art8.6	
Reason	The current layout (ward 3 approach) will have an impact on the means of escape and render the evacuation strategy of the ward block ineffective. This is contrary to Article 8.
Required Action	Confirm that the ward approach to ward 3 will be made up to mirror the other ward approach areas within the hospital, to allow for progressive horizontal evacuation of the relevant person The fire separation should conform to a relevant standard e.g. Appendix A (including Table A1, A2) of Approved Document B Volume 2 Buildings other than dwelling houses. Compliance with this or an equivalent standard will normally satisfy the requirement.
Outcome	This work is necessary to reduce the risk of spread of fire.

1. Can you please confirm that the gas in the main kitchen is isolated on the activation of the fire alarm system.

2. Can you confirm that the main kitchen gas shutoff located in the cupboard close to the front of house complies with the gas safety regulations.

Gwasanaeth Tân ac Achub
Canolbarth a Gorllewin Cymru

Mid and West Wales
Fire and Rescue Service

Prif Swyddog Tân | Chief Fire Officer
Roger Thomas BA(Hons), MSc

tancgc.gov.uk
mawwfire.gov.uk

The Chief Executive
Corporate Offices
Hywel Dda Health Board
Hafan Derwen
Ystwyth Building
Jobs Well Road
Carmarthen
SA31 3BB

Gofynner am/ Please ask for: Watch Manager K Steele

Ext No: 3367

E-bost/E-mail: k.steele@mawwfire.gov.uk

Fy Nghyf/My Rei BFS/ KS /00114719

Dyddiad/Date: 12 December 2023

Dear Sir/Madam,

The Regulatory Reform (Fire Safety) Order 2005

Letter of Fire Safety Failures; Action Plan of Remedial Measures

Premises: HYWEL DDA UNIVERSITY HEALTH BOARD, WITHYBUSH HOSPITAL, WITHYBUSH, FISHGUARD ROAD, HAVERFORDWEST, SA61 2PZ

To ensure compliance with The Regulatory Reform (Fire Safety) Order 2005 and to satisfy the agreed requirements itemised within Enforcement notice, reference KS 890 04, the Phase 2 works (proposed solution) Action Plan and timeframes for Withybush General Hospital must be adhered to.

You have an ongoing duty under the Regulatory Reform (Fire Safety) Order 2005 ("The Order") to ensure the safety of relevant persons.

The agreed Action Plan below sets out what you need to do.

Timescale for Completion

You should complete the work outlined in the Action Plan by the agreed dates set out in the schedule below. An extension to the agreed timeframes will not be granted.

Consequence for Non-compliance

If you do not complete the work in the Action Plan, within the agreed timescales (or I find that safety provisions have worsened, during my next visit), the Mid and West Wales Fire and Rescue Authority ("The Authority") will consider serving a further enforcement notice on you as the person with responsibilities for The Premises. A further enforcement notice would legally bind you to do the work in the notice.

Route to Appeal

You can clarify or challenge what you need to do. If you have any feedback you wish to share, please access the Complaints and Compliments section found on our website: **https://www.mawwfire.gov.uk/eng/about-us/access-to-information/compliments-comments-and-complaints/.**

Alternative Solutions

If you want to use a different solution to bring about safety from fire, please contact me to discuss further. Any alternative solution you propose must meet the 'outcome(s)' and timeframes as stated in the agreed Action Plan.

Yours faithfully,

Watch Manager K Steele
Authorised Fire Safety Regulator
On behalf of the Mid and West Wales Fire and Rescue Authority

CC's

Steve.moore2@wales.nhs.uk

Andrew.A.Carruthers@wales.nhs.uk

HIW@gov.wales

Rob.elliott@wales.nhs.uk

Janice.cole-williams@wales.nhs.uk

Richard.Jupp2@wales.nhs.uk

Daniel.Dyer@wales.nhs.uk

Important Information – Action Plan referred to in letter

Notes to this schedule:

The government guidance most suitable to your premises is WHTM 05/02 / fire safety in healthcare premises, which can be found at https://www.gov.uk/workplace-fire-safety-your-responsibilities/fire-risk-assessments

Before you make certain changes to the premises, you may have to apply for approval from statutory bodies and/or others having interest in them. If you have doubt about the need for approval, you should ask the relevant body. For example, you may have to apply for approval from a Building Control Body **http://www.legislation.gov.uk/uksi/2010/2214/regulation/3/made.**

Action Plan Schedule:

Phase 2 works (proposed solution document)

1. Complete all the works set out in the proposed solution document dated 19 July 2023 relating to Phase 2 by the agreed date of 31st October 2025.
   (Original agreed Phase 2 Works Concern – All department / Ward Areas including any sub compartmentation and risk room area).

2. Complete the works highlighted in section 1.5 from the document presented to the Fire Authority on the 10th of November 2023 (Fire Enforcement Project Teams - Update to MWWFRS, Fri 10 November 2023) by the agreed date of 31st October 2025.

3. Complete the works highlighted in section 1.8 from the document presented to the Fire Authority on the 10th of November 2023 (Fire Enforcement Project Teams - Update to MWWFRS, Fri 10 November 2023) by the agreed date of 31st October 2025.

4. Complete the works highlighted in section 1.10 from the document presented to the Fire Authority on the 10th of November 2023 (Fire Enforcement Project Teams - Update to MWWFRS, Fri 10 November 2023) by the agreed date of 31st October 2025.

5. The provision of adequate fire safety training is a legal duty placed on the responsible person by the Fire Safety Order. In order to satisfy the legal requirements for training, staff need to have an understanding of the fire risks to which they may be exposed and know what to do in the event of a fire so that fire safety procedures can be applied effectively. The requirements are laid out in the Health Technical Memorandum 05-01: Managing healthcare fire safety (Second edition)

Further to the above, the following outstanding and agreed works as laid out in the letters of Fire Safety Matters issued to you on the 24th August 2023 reference BFS/KS/00114719 and included in your Action Plan 2023 (Fire Enforcement Project Teams - Update to MWWFRS, Fri 10 November 2023) under sections 1.1 – 1.4, 1.6 – 1.7 and 1.9 are to be completed by the 1st March 2024.

For reference I attach a copy of your Action Plan and letter of Fire Safety Matters (BFS/KS/00114719).

Appendix Two – Fire Safety Action Plan

Location: Withybush General Hospital, Haverfordwest

LoFSM Action Plan Prepared Date: 14th September 2023

Letters Received Embedded Below:

Owned by: Estates Department

Responsible Actions: As recorded in the action log

Updated on Oct 2023

ACTION PLAN

Block 4 & Block 5 including ITU

Letter reference - BFS/KS/00114719

Letter received on – 24th August 2023

Ref	Reason	Required Action	Outcome	HB Comments	Responsible Officer	Time scale	COST
1.1	The standard of vertical fire separation provided is not maintained adequately. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. It was noted in the recent inspection that doors to offices, storerooms and some staff areas were being wedged open, for example the main office in the corridor leading to the ITU This is contrary to Article 8.	Wedges, hooks and any other devices in use at the present time as a means of holding the self-closing doors in the open position shall be removed to ensure that the doors are effectively self-closing.	This work is necessary to reduce the risk of the spread of fire	To be removed by FSA and concerns communicated to responsible persons/staff	DD	Nov 23	N/A
1.2	The standard of horizontal fire separation provided is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8	Charging of battery devices must not be done within the means of escape, remove all charging items into a suitable room with a fire door. The means of escape must not be used for storage or charging of electrical items.	This work is necessary to reduce the risk of spread of fire.	To be instructed by FSA to risk owner	DD	Nov 23	N/A

1.3	The standard of horizontal fire separation provided is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.	The storage and use of electrical equipment/devices within the means of escape is not permitted, remove all electrical devices into a suitable room with a fire door. • Fridge (behind the nurse station WD1) • Photocopier. (next to the nurse station WD3 & 4) • Laptop charging units (noted mounted in various ward corridors / department corridors). The means of escape must not be used for storage or charging of electrical items.	This work is necessary to reduce the risk of spread of fire.	To be instructed by FSA to risk owners	DD	Nov 23	N/A
1.4	Combustible materials were too close to an ignition source. This means that fire could easily break out, which could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.	Relocate items within the Ward 1 treatment room to improve the rooms safety. There was charging of items and a fridge located next to an oxygen point. This room requires movement of the items to another area and or the oxygen and vacuum point isolating to reduce the risk from fire to an acceptable level.	This work is necessary to reduce the risk of fire.	To be instructed by FSA to risk owners	DD	Nov 23	N/A

1.5	The standard of compartmentation provided in the building is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.	During the inspection breaches in compartmentation were identified within the endoscopy storeroom which houses the photocopier and a large air conditioning unit. The breaches in compartmentation would not support the existing evacuation strategy. In the event of fire, breaches in compartmentation, will allow fire and smoke to spread unchecked throughout the building. This would have an impact on the means of escape and render the evacuation strategy of the building ineffective. All breaches in compartmentation should be fire stopped to provide the appropriate fire resistance in accordance with building regulations. Compliance with this or an equivalent standard will normally satisfy the requirement. I am happy for this to item to be address in the Phase 2 enforcement works Scheme.	This work is necessary to reduce the risk of spread of fire.		Forms Part of Phase 2	Phase 2 Date	JW

1.6	In the event of danger, it is not possible for relevant persons to evacuate the premises as quickly and as safely as possible. There is inadequate emergency lighting within the kitchens on the LGF. This is contrary to Article 14.	Provide an emergency lighting system (which is to be independent of all other systems), to illuminate • Block 4 LGF Kitchens On completion of the emergency lighting system, the commission certificate is to be completed by a competent person and a copy made available to the Fire and Rescue Authority. This system is to be designed and installed in accordance BS5266-1:2016 Compliance with this or an equivalent standard will normally satisfy the requirement.	This work is necessary to ensure that the means of escape can be safely and effectively used whenever they are needed.	Full work to be scoped and costed.	Ops to address – further discussion to agree scope	Jan 24	TBC
1.7	The standard of horizontal fire separation provided is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.	Where a fire door is required to be fitted with an air transfer grille, it should only be fitted with one that is capable of sealing both by thermal initiation and by interface with smoke sensors either directly or via a fire alarm panel. This was noted in rooms SF176 & SF166 but applies to any of this type of system fitted to a fire rated door within the means of escape where the room it is fitted to contains a fire risk. The air transfer grill should conform to a relevant standard	This work is necessary to reduce the risk of the spread of fire.	Full work to be scoped and costed.	Ops to address – further discussion to agree scope	Jan 24	TBC

		e.g.BS 8214:2016. Fire doors should conform to a relevant standard e.g. Appendix B (including Appendix C Table B1) of Approved Document B Volume 2 Buildings other than dwelling houses. Compliance with these standards will normally satisfy the requirement.					
1.8	The standard of horizontal fire separation provided is not adequate. A fire could spread rapidly and make the escape route unsafe for relevant persons to use. This is contrary to Article 8.	A fire door should be installed providing 30 minutes fire resistance. Panels or partitions above or at the sides of the doors should provide a similar degree of fire resistance in the following location: • Between the sluice room and electrical room within Ward 4 Fire resisting doors need to be fitted with • A self-closing device • Intumescent strips and smoke seals. • Three brass/steel hinges. Fire doors should conform to a relevant standard e.g. Appendix B (including Appendix C Table B1) of Approved Document B	This work is necessary to reduce the risk of spread of fire.		Forms Part of Phase 2	Phase 2 Date	JW

		Volume 2 Buildings other than dwelling houses. BS 8214:2016 - timber-based fire door assemblies – Code of practice Compliance with this or an equivalent standard will normally satisfy the requirement.					
1.9	The risks from dangerous substances to relevant persons in the premises have not been eliminated, substituted and/or reduced so far as is reasonably practicable. Flammable items were noted on the shelves of the Ward 4 store cupboard with other consumables increasing the risk of fire within this area. This is contrary to Article 12	Ensure all flammable items are stored in an safe manner. Flammable items are required to be stores in a metal flame resistant cupboard.	This work is necessary to reduce the risk of fire.	To be instructed by FSA to risk owners	DD	Nov 23	N/A
1.10	The distance from the dead end situation in the Staffroom within the theatres area to the nearest place of relative safety is so great that fire and smoke can overtake people before they reach the exit. This is contrary to Article 14.	Reduce the risk within this area to as low as practicable by: Either reconfigure the area by moving the kitchen into the staff room or make up the corridor so it provides adequate fire resistance to allow the relevant person to effect a safe exit.	This work is necessary to provide sufficient escape routes (corridors, stairs and doors) for people		Forms Part of Phase 2	Phase 2 Date	JW

1.11	The current layout (ward 3 approach) will have an impact on the means of escape and render the evacuation strategy of the ward block ineffective. This is contrary to Article 8.	Confirm that the ward approach to ward 3 will be made up to mirror the other ward approach areas within the hospital, to allow for progressive horizontal evacuation of the relevant person. The fire separation should conform to a relevant standard e.g. Appendix A (including Table A1, A2) of Approved Document B Volume 2 Buildings other than dwelling houses. Compliance with this or an equivalent standard will normally satisfy the requirement.	This work is necessary to reduce the risk of spread of fire.	To be confirmed by the FSA	DD	Comp leted	N/A

Appendix Three – Cost Report

Business Justification Case

Health Board:	Hywel Dda University Health Board
Hospital/Site:	Withybush General Hospital, Haverfordwest
Project Title:	Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest
Project No:	QS2997
Option No:	Option 0 Rev 1
Option Title:	Preferred Option
Prepared by:	Lee Wakemans Ltd.
Date:	20 February 2024 (Version 2.0 Issue)

Project Title:	**Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest**
Option No:	**Option 0 Rev 1**
Option Title:	**Preferred Option**

BASIS OF ESTIMATING

Stage 2 Indicative Cost Plan

BCIS PubSec Index Level	:	N/A	FP - Costs escalated with published and assessed inflation for the duration of the project
Equipment cost level	:	N/A	N/A
Location factor	:	1.00	All rates/costs indexed to site location
Proposed start on site	:	Jul-24	Based on SCP's (IHP) programme HE0006/WGH/FPS/Ph2/BJC/AP02 Rev R5
Proposed completion date	:	Aug-26	

Capital Cost Summary

Ref	Cost Centre			Net £	VAT £	Gross £
1	Departmental Cost (OBC2)			£ -	£ -	£ -
2	On costs (OBC3)	N/A	of (1)	£ 9,660,480	£ 1,932,096	£ 11,592,576
3	Sub-total			£ 9,660,480	£ 1,932,096	£ 11,592,576
4	Provisional location adjustment - indicative costs based on the site's regional location	1.00		£ -	£ -	£ -
5	Works Cost			£ 9,660,480	£ 1,932,096	£ 11,592,576
6	Fees (OBC4)	33.59%	of (5)	£ 3,244,874	£ 648,975	£ 3,893,849
	Management & Design - Pre-Construction Stages	£ 1,113,762	11.53%			
	Management & Design - Construction Stage	£ 703,267	7.28%			
	Additional Management & Supervision - Construction Stage	£ 1,427,845	14.78%			
		£ 3,244,874	33.59%			
7	Non-works Costs (OBC4)			£ 704,454	£ 140,891	£ 845,345
8	Equipment Costs (OBC2)	N/A	of (1)	£ -	£ -	£ -
9	Quantified Risk Contingency: Anticipated risk level normally expected at BJC Stage 2 (OBC) for a low risk traditional project			£ 1,334,192	£ 266,838	£ 1,601,030
	Health Board	£ 1,334,192	All Health Board			
	SCP	£ -				
		£ 1,334,192	(9.8% of 5, 6, 7 & 8)			
10	VAT Reclaim			£ -	(£ 303,444)	(£ 303,444)
11	Optimism Bias - Excluded			-	-	-
12	BJC Project Cost (at OBC equivalent stage)			£ 14,944,000	£ 2,685,356	£ 17,629,356

13	Inflation forecast (escalation for full project escalation included by HDUHB and SCP)	£ -	£ -	£ -
14	***Forecast Project Outturn Cost - Excluding Additional Quantified Risk Contingency to be held by Welsh Government (for approval purposes)***	**£ 14,944,000**	**£ 2,685,356**	**£ 17,629,356**
15	Additional Quantified Risk Contingency: Anticipated additional risk level associated with the ad hoc/bespoke nature of risks associated with a project of this nature to be held by Welsh Government	£ 5,094,878	£ 1,018,976	£ 6,113,854
16	***Forecast Project Outturn Cost - Including additional Quantified Risk Contingency to be held by Welsh Government (for approval purposes)***	**£ 20,038,878**	**£ 3,704,331**	**£ 23,743,209**

Health Board	£ -	
SCP	£ -	
Welsh Government - general risk contingency	£ 5,094,878	Held by Welsh Government on behalf of Health Board
	£ 5,094,878	(34.09% of 14)

Project Title: Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest
Option No: Option 0 Rev 1
Option Title: Preferred Option

CAPITAL COSTS: DEPARTMENTAL AND EQUIPMENT COSTS

Accommodation	Functional Size	Space allowance		N/A/C	Departmental Allowance	Equipment Allowance
		m2	£/m2		£	£
None	N/A			C	£ -	£ -

Total floor area (Nett Area) 0 m2 £ -

Less: Abatement for transferred equipment £ -

Departmental Cost - to OBC1 Summary £ -

Equipment Cost - to OBC1 Summary £ -

Project Title:	Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest
Option No:	Option 0 Rev 1
Option Title:	Preferred Option

CAPITAL COSTS: ON-COSTS

		Net Cost		% of DCA
1	Communications - GIFA:			
a	Space	£	-	N/A
b	Medical Gases	£	-	N/A
c	Lifts	£	-	N/A
2	"External" Building Work			
a	Drainage	£	-	N/A
b	Roads, paths, parking	£	-	N/A
c	Site layout, walls, fencing, gates	£	-	N/A
d	BWIC with "External" engineering work	£	-	N/A
3	"External" Engineering Work			
a	Steam, condensate, heating, hot water and gas supply mains	£	-	N/A
b	Cold water mains and storage	£	-	N/A
c	Electricity mains, sub-stations, standby generating plant	£	-	N/A
d	Calorifiers and associated plant	£	-	N/A
e	Miscellaneous services	£	-	N/A
4	Auxiliary Buildings	£	-	N/A
5	Other on-costs and abnormals			
a	Building abnormals (See Annex A)	£	9,660,480	N/A
b	Engineering (See Annex B)	£	-	N/A
c	Other on-costs (See Annex C)	£	-	N/A
	Total On-costs - to OBC1 Summary	£	9,660,480	0.00%

Project Title:	**Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest**
Option No:	**Option 0 Rev 1**
Option Title:	**Preferred Option**

CAPITAL COSTS: FEES AND NON-WORKS COSTS

			£	% of Works Cost
1	Fees			
1.1	Health Board			
	a. Project Manager	£	344,054	3.56%
	b. Health Board Cost Advisor	£	344,687	3.57%
	c. Supervisor	£	620,271	6.42%
	d. Project Director	£	-	0.00%
	e. In-house Project Sponsorship	£	96,605	1.00%
	f. Financial Vetting	£	-	0.00%
	g. Audit	£	15,000	0.16%
	h. Specialist Advisors	£	96,605	1.00%
	Escalation on 1.1	£	41,837	0.43%
1.2	SCP			
1.2.1	BJC Stages 2 & 3:			
	a. Total for IHP, HLM, Hydrock Fire, Hydrock M&E, Imtech Dalkia, Non-Works Costs, rates escalation and increased fee @ 8.50%	£	850,000	8.80%
1.2.2	Construction Stages 4, 5 & 6 (Year 7 Framework Rates):			
	a. Architect	£	398,095	4.12%
	b. Civil and Structural Engineer	£	10,000	0.10%
	c. Building Services Engineer	£	39,385	0.41%
	d. Principal Designer	£	35,341	0.37%
	e. Other - Fire Engineer	£	255,555	2.65%
	Escalation on 1.2.2 a, b, c & d.	£	31,961	0.33%
	SCP fee @ 8.50% on 1.2.2 a, b, c, d & e.	£	65,479	0.68%
	Total Fees to OBC1 Summary	£	3,244,874	33.59%
2	Non-Works Costs			
	a. Land purchase costs and associated legal fees	£	10,000	
	b. Statutory and Local Authority charges	£	16,000	
	c. Planning and Building Control fees	£	11,500	
	d. Other including escalation	£	666,954	
	Total Non-Works Costs to OBC1 Summary	£	704,454	

Project Title: Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest

Option No: Option 0 Rev 1
Option Title: Preferred Option

PROJECT CASHFLOW FORECAST

Proposed start on site: Jul-24
Proposed completion date: Aug-26

Year	0	1	2	3	4	5	Total
Financial year	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	
Works Cost	£0	£0	£4,566,654	£4,706,726	£348,048	£39,052	£ 9,660,480
Fees	£609,241	£490,521	£925,084	£1,056,234	£153,980	£9,813	£ 3,244,874
Non-works Costs	£0	£12,500	£341,400	£280,629	£69,926	£0	£ 704,454
Equipment Costs	£0	£0	£0	£0	£0	£0	£ -
Quantified Risk Provision - Held by Health Board	£0	£40,000	£616,599	£624,618	£47,583	£5,392	£ 1,334,192
Total for Economic Appraisal	£ 609,241	£ 543,021	£ 6,449,737	£ 6,668,206	£ 619,537	£ 54,258	£ 14,944,000
Gross VAT	£121,848	£108,604	£1,289,947	£1,333,641	£123,907	£10,852	£ 2,988,800
Less: Reclaimable VAT	-£18,955	-£30,998	-£105,717	-£117,827	-£28,192	-£1,756	(£ 303,444)
Net VAT	£ 102,893	£ 77,607	£ 1,184,231	£ 1,215,814	£ 95,715	£ 9,095	£ 2,685,359
Inflation (escalation for full project escalation included by HDUHB and SCP)	£ -	£ -	£ -	£ -	£ -	£ -	£ -
Total for Financial Case (excluding Additional Quantified Risk Contingency to be held by Welsh Government)	£ 712,135	£ 620,628	£ 7,633,967	£ 7,884,021	£ 715,252	£ 63,353	£ 17,629,356
Additional Quantified Risk Provision - General risk held by Welsh Government (including VAT)	£0	£0	£2,890,110	£2,978,758	£220,270	£24,715	£ 6,113,854
Total for Financial Case (including Additional Quantified Risk Contingency to be held by Welsh Government)	£ 712,135	£ 620,628	£ 10,524,077	£ 10,862,779	£ 935,522	£ 88,069	£ 23,743,209

Project Title: Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest

Option No: Option 0 Rev 1
Option Title: Preferred Option

PROJECT CASHFLOW FORECAST

Proposed start on site: Jul-24
Proposed completion date: Aug-26

Funding source: Department for Health and Social Services: Welsh Assembly Government

Year	0	1	2	3	4	5	Total
Financial year	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	
Works Cost	£ -	£ -	£ 4,566,654	£ 4,706,726	£ 348,048	£ 39,052	**£ 9,660,480**
Fees	£ 609,241	£ 490,521	£ 925,084	£ 1,056,234	£ 153,980	£ 9,813	**£ 3,244,874**
Non-works Costs	£ -	£ 12,500	£ 341,400	£ 280,629	£ 69,926	£ -	**£ 704,454**
Equipment Costs	£ -	£ -	£ -	£ -	£ -	£ -	**£ -**
Quantified Risk Provision - Held by Health Board	£ -	£ 40,000	£ 616,599	£ 624,618	£ 47,583	£ 5,392	**£ 1,334,192**
Sub-Total	**£ 609,241**	**£ 543,021**	**£ 6,449,737**	**£ 6,668,206**	**£ 619,537**	**£ 54,258**	**£ 14,944,000**
Gross VAT	£ 121,848	£ 108,604	£ 1,289,947	£ 1,333,641	£ 123,907	£ 10,852	**£ 2,988,800**
Less: Reclaimable VAT	(£ 18,955)	(£ 30,998)	(£ 105,717)	(£ 117,827)	(£ 28,192)	(£ 1,756)	**(£ 303,444)**
Net VAT	**£ 102,893**	**£ 77,607**	**£ 1,184,231**	**£ 1,215,814**	**£ 95,715**	**£ 9,095**	**£ 2,685,356**
Inflation (escalation for full project escalation included by HDUHB and SCP)	£ -	£ -	£ -		£ -	£ -	**£ -**
Total for Financial Case (excluding Additional Quantified Risk Contingency to be held by Welsh Government)	**£ 712,135**	**£ 620,628**	**£ 7,633,967**	**£ 7,884,021**	**£ 715,252**	**£ 63,353**	**£ 17,629,356**
Additional Quantified Risk Provision - General risk held by Welsh Government (including VAT)	£0	£0	£2,890,110	£2,978,758	£220,270	£24,715	**£ 6,113,854**
Total for Financial Case (including Additional Quantified Risk Contingency to be held by Welsh Government)	**£ 712,135**	**£ 620,628**	**£ 10,524,077**	**£ 10,862,779**	**£ 935,522**	**£ 88,069**	**£ 23,743,209**

Funding source:

Year	0	1	2	3	4	5	Total
Financial year	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	
Works Cost							£ -
Fees							£ -
Non-works Costs							£ -
Equipment Costs							£ -
Quantified Risk Contingency							£ -
Sub-Total	£ -	£ -	£ -	£ -	£ -	£ -	£ -
Gross VAT							£ -
Less: Reclaimable VAT							£ -
Net VAT	£ -	£ -	£ -	£ -	£ -	£ -	£ -
Inflation	£ -	£ -	£ -	£ -	£ -	£ -	£ -
Total	£ -	£ -	£ -	£ -	£ -	£ -	£ -

Project Title:	Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest
Option No:	Option 0 Rev 1
Option Title:	Preferred Option

KEY PROGRAMME DATES

	Planned @ SOC	Actual
Submission of SOC to Regional Office	N/a	
Regional Office Approval	N/a	
Submission of OBC to WAG	N/a	
		Forecast @ OBC
Submission of FBC to WAG*		TBC
WAG Approval		TBC
Agreement of Indicative Cost		February 2024
Start on Site		June 2024
Handover		August 2026
Opening of Facility		N/A
Project Closure		TBC

Project Title:	Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest
Option No:	Option 0 Rev 1
Option Title:	Preferred Option

RECOVERABLE VAT CALCULATION

	a	b	c	d
	Cost Net of VAT	VAT at 20% (i.e. prior to recovery)	Percentage recoverable (% of col b)	Recoverable VAT (col b x col c)
Works Cost	£ 9,660,480	£ -	0.00%	£ -
Fees (recoverable VAT)	£ 1,517,222	£ 303,444	20.00%	£ 303,444
Fees (non-recoverable VAT)	£ 1,727,652	£ -	0.00%	£ -
Non-works Costs	£ 704,454	£ -	0.00%	£ -
Equipment Costs	£ -	£ -	0.00%	£ -
Contingencies	£ 1,334,192	£ -	0.00%	£ -
Total				£ 303,444

Project Title: Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest
Option No: Option 0 Rev 1
Option Title: Preferred Option

CAPITAL COSTS: ON-COSTS - Annex A: Building Abnormals

	Item	Qty	Unit	Rate	Net Cost	Comments
	Refer to On-Costs Abnormals Annex A	1	Item	£ 9,660,480	£ 9,660,480	

Total Annex A - to OBC3 Building Abnormals	**£ 9,660,480**
Equivalent to £/m2	N/A

Project Title: Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest
Option No: Option 0 Rev 1
Option Title: Preferred Option

CAPITAL COSTS: ON-COSTS - Annex B: Engineering Abnormals

Item	Qty	Unit	Rate	Net Cost	Comments
None	1	Item	£0	£ -	

Total Annex B - to OBC3 Engineering Abnormals £ -

Equivalent to £/m2 N/A

Project Title: **Phase 2 Fire Precaution Upgrade Works, Withybush General Hospital, Haverfordwest**
Option No: Option 0 Rev 1
Option Title: Preferred Option

CAPITAL COSTS: ON-COSTS - Annex C: Other On-Cost Abnormals

Item	Qty	Unit	Rate	Net Cost	Comments
None	1	Item	£ -	£ -	

Total Annex C - to OBC3 Engineering Abnormals £ -

Equivalent to £/m2 N/A

Phase 2 Fire Precaution Upgrade Works at Withybush General Hospital, Haverfordwest
Employer: Hywel Dda University Health Board (HDUHB)

Estimated BJC Project Costs - OBC (Stage 2), FBC (Stage 3), Design Completion & Construction (Stage 4), Operational Commissioning (Stage 5) & Project Closure (Stage 6) - Forecast Cashflow
Version 2.0 Issue - 20 February 2024
Prepared by: Lee Wakemans

Assumptions:

Provisional location adjustment: Not applicable. all rates based on project location
Inflation forecast by NWSSP-SES: Not applicable, SCP have assessed escalation for the full duration of the project on construction rates and staff and consultant's rates as follows (HDUHB have applied same escalation rates for directly appointed consultants for years 8 and 9 as assessed by IHP and Lee Wakemans):

Actual as published by NWSSP-SES: Year 2 to June 2019 (4.1%), year 3 to June 2020 (4.42%), year 4 to June 2021 -2.66% (minus), year 5 to June 2022 (5.50%), year 6 to June 2023 5.05(%) and year 7 to June 2024 (5.28%)
Forecast by IHP: year 8 to June 2025 (assessed 5%) year 9 to June 2026 (assessed 5%) and year 10 to June 2026 (assessed 5%)

OBC Cost Head / Organisation	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24
	BJC (OBC & FBC equivalent stages)																				BJC - HDUHB Review and WG Scrutiny/Approval	
Works Cost:																						
Departmental Costs - not applicable	£0																					
On costs :																						
Communications -	£0																					
External Building	£0																					
External Engineeri	£0																					
Auxiliary Buildings -	£0																					
Other on-																						
	£0																					
	£0																					
	£0																					
Sub-totals Works Cost	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Fees:																						
Hywel Dda University Health Board - @ Year 7																						
Project	£4,303	£3,606	£6,028	£6,062	£6,363	£5,202	£2,082	£3,589	£5,325	£3,337	£2,434	£2,322	£5,888	£3,838	£3,308	£4,677	£6,475	£5,155	£7,560	£5,000	£5,000	£5,000
Health				£1,366	£1,823	£2,034	£4,971	£1,350	£5,472	£1,707	£2,890	£3,730	£4,226	£1,043	£2,013	£1,333	£9,324	£3,798	£6,357	£10,000	£5,000	£5,000
Supervisor - normal working hours									£35,198										£40,573	£4,000	£4,000	£4,000
Supervisor - out of																						
In-House																						
Financial Vetting																						
VAT Recovery																						
Audit -																						
Specialist Advisors																						
Escalation on Year																						
SCP (IHP) - @ Year 7 Framework Rates:																						
BJC - total for IHP, HLM, Hydrock Fire	£21,775	£76,796	£105,450	£126,264	£59,035	£133,358	-£96,522	£53,991	£34,320	£2,304	£75,857	£0	£0	£80,543	£64,920	£54,249	£0	£0	£0	£40,000	£17,660	
Architect																						
Civil and Structural																						
Building Services																						
Principal																						
Others:																						
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%																						
Year 8 escalation (Jul-24 to Jun-25) - assumed 5% and Year 9 escalation (Jul-25 to Jun-26 - assumed 5% - compounded 10.25%																						
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%, Year 9 escalation (Jul-25 to Jun-26) - assumed 5% and Year 10 escalation (Jul-26 to Jun-27) - assumed 5% - compounded 15.76%																						
SCP (IHP) fee @ 8,5% (fee included in BJC costs)																						
Totals Fees	£26,078	£80,402	£111,478	£133,692	£67,221	£140,594	-£89,469	£58,930	£80,315	£7,348	£81,181	£6,052	£10,114	£85,424	£70,241	£60,259	£15,799	£8,953	£54,490	£59,000	£31,660	£14,000
Non-works Costs:																						
Non-works Costs (refer to detailed breakdown):	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£2,500	£5,000	£5,000	£0	£0
Totals Non-Works Costs	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£2,500	£5,000	£5,000	£0	£0
Equipment Costs:																						
Equipment Costs:	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Totals Equipment	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Works Cost, Fees, Non-Works and Equipment Totals	£26,078	£80,402	£111,478	£133,692	£67,221	£140,594	-£89,469	£58,930	£80,315	£7,348	£81,181	£6,052	£10,114	£85,424	£70,241	£60,259	£15,799	£11,453	£59,490	£64,000	£31,660	£14,000
Quantified Risk Contingency:																						
Quantified Risk Contingency - Held by	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£40,000	£0	£0
Quantified Risk Contingency Totals	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£40,000	£0	£0
Works Cost, Fees, Non-Works, Equipment and Quantified Risk Contingency Totals	£26,078	£80,402	£111,478	£133,692	£67,221	£140,594	-£89,469	£58,930	£80,315	£7,348	£81,181	£6,052	£10,114	£85,424	£70,241	£60,259	£15,799	£11,453	£59,490	£104,000	£31,660	£14,000
VAT:																						
Value Added Tax (20%)	£5,216	£16,080	£22,296	£26,738	£13,444	£28,119	-£17,894	£11,786	£16,063	£1,470	£16,236	£1,210	£2,023	£17,085	£14,048	£12,052	£3,160	£2,291	£11,898	£20,800	£6,332	£2,800
Works Cost, Fees, Non-Works, Quantified Risk Contingency and VAT Totals	£31,294	£96,482	£133,774	£160,430	£80,665	£168,713	-£107,363	£70,716	£96,378	£8,818	£97,417	£7,262	£12,137	£102,509	£84,289	£72,311	£18,959	£13,744	£71,388	£124,800	£37,992	£16,800
VAT Reclaim:																						
Vat Reclaim (20%):	-£861	-£721	-£1,206	-£1,486	-£1,637	-£1,447	-£1,411	-£988	-£9,199	-£1,009	-£1,065	-£1,210	-£2,023	-£976	-£1,064	-£1,202	-£3,160	-£1,791	-£10,898	-£3,800	-£2,800	-£2,800
Works Cost, Fees, Non-Works, Equipment and Quantified Risk Contingency, VAT and VAT Reclaim Totals	£30,433	£95,761	£132,568	£158,945	£79,028	£167,266	-£108,773	£69,728	£87,179	£7,809	£96,352	£6,052	£10,114	£101,533	£83,225	£71,109	£15,799	£11,953	£60,490	£121,000	£35,192	£14,000
Optimism Bias - Excludes:																						
Optimism Bias - Excluded	£0																			£0	£0	
Forecast Project Outturn Cost (for approval Purposes)	£30,433	£95,761	£132,568	£158,945	£79,028	£167,266	-£108,773	£69,728	£87,179	£7,809	£96,352	£6,052	£10,114	£101,533	£83,225	£71,109	£15,799	£11,953	£60,490	£121,000	£35,192	£14,000
Inflation Forecast (excluded to be advised by NWSSP-SES):																						
All costs escalated to completion of the Works	£0																			£0	£0	
Forecast Project Outturn Cost (for approval Purposes)	£30,433	£95,761	£132,568	£158,945	£79,028	£167,266	-£108,773	£69,728	£87,179	£7,809	£96,352	£6,052	£10,114	£101,533	£83,225	£71,109	£15,799	£11,953	£60,490	£121,000	£35,192	£14,000
Additional Quantified Risk Contingency																						
Anticipated additional risk level associated with the ad hoc/bespoke nature of risks associated with a project of this nature to be held by Welsh	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Forecast Project Outturn Cost for Phase 2 Works	£30,433	£95,761	£132,568	£158,945	£79,028	£167,266	-£108,773	£69,728	£87,179	£7,809	£96,352	£6,052	£10,114	£101,533	£83,225	£71,109	£15,799	£11,953	£60,490	£121,000	£35,192	£14,000

OBC Cost Head / Organisation	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
	Contractor Mobilisation - 12 weeks			Construction Period (excluding De-Mobilisation Period and Terminal Float) - 87 weeks																			
Works Cost:																							
Departmental Costs - not applicable																							
On costs :																							
Communications -																							
External Building																							
External Engineeri																							
Auxiliary Buildings -																							
Other on-																							
	£39,429	£78,866	£124,213	£397,074	£550,138	£550,138	£571,516	£571,516	£429,992	£626,886	£626,886	£626,886	£605,508	£468,280	£491,694	£562,457	£343,601	£265,312	£265,312	£265,312	£265,312	£265,312	£281,738
Sub-totals Works Cost	£39,429	£78,866	£124,213	£397,074	£550,138	£550,138	£571,516	£571,516	£429,992	£626,886	£626,886	£626,886	£605,508	£468,280	£491,694	£562,457	£343,601	£265,312	£265,312	£265,312	£265,312	£265,312	£281,738
Fees:																							
Hywel Dda University Health Board - @ Year 7																							
Project	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500	£8,500
Health	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750	£9,750
Supervisor - normal working hours	£7,500	£7,500	£7,500	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000	£15,000
Supervisor - out of			£4,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000	£8,000
In-House	£394	£789	£1,242	£3,971	£5,501	£5,501	£5,715	£5,715	£4,300	£6,269	£6,269	£6,269	£6,055	£4,683	£4,917	£5,625	£3,436	£2,653	£2,653	£2,653	£2,653	£2,653	£2,817
Financial Vetting																							
VAT Recovery			£2,000	£2,000	£2,000	£2,000	£2,000	£2,000															
Audit -																							
Specialist Advisors	£394	£789	£1,242	£3,971	£5,501	£5,501	£5,715	£5,715	£4,300	£6,269	£6,269	£6,269	£6,055	£4,683	£4,917	£5,625	£3,436	£2,653	£2,653	£2,653	£2,653	£2,653	£2,817
Escalation on Year			£913	£913	£913	£913	£913	£913	£913	£913	£913	£913	£913	£913									
															£1,871	£1,871	£1,871	£1,871	£1,871	£1,871	£1,871	£1,871	£1,871
SCP (IHP) - @ Year 7 Framework Rates:																							
BJC - total for IHP, HLM, Hydrock Fire																							
Architect	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308	£17,308
Civil and Structural	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435	£435
Building Services	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712	£1,712
Principal	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537	£1,537
Others:																							
	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£10,683	£11,778	£11,778	£11,778	£11,778	£11,778	£11,778	£11,778	£11,778	£11,778
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%			£1,050	£1,050	£1,050	£1,050	£1,050	£1,050	£1,050	£1,050	£1,050	£1,050	£1,050	£1,050									
Year 8 escalation (Jul-24 to Jun-25) - assumed 5% and Year 9 escalation (Jul-25 to Jun-26 - assumed 5% - compounded 10.25%															£2,152	£2,152	£2,152	£2,152	£2,152	£2,152	£2,152	£2,152	£2,152
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%, Year 9 escalation (Jul-25 to Jun-26) - assumed 5% and Year 10 escalation (Jul-26 to Jun-27) - assumed 5% - compounded 15.76%																							
SCP (IHP) fee @ 8,5% (fee included in BJC costs)	£2,692	£2,692	£2,782	£2,782	£2,782	£2,782	£2,782	£2,782	£2,782	£2,782	£2,782	£2,782	£2,782	£2,782	£2,968	£2,968	£2,968	£2,968	£2,968	£2,968	£2,968	£2,968	£2,968
Totals Fees	£60,906	£61,694	£70,653	£87,610	£90,671	£90,671	£91,099	£91,099	£86,268	£90,206	£90,206	£90,206	£89,779	£87,034	£90,844	£92,260	£87,882	£86,317	£86,317	£86,317	£86,317	£86,317	£86,645
Non-works Costs:																							
Non-works Costs (refer to detailed breakdown):	£2,800	£2,800	£22,704	£40,190	£35,722	£51,740	£31,522	£33,890	£44,122	£34,940	£40,972	£35,990	£31,522	£44,390	£35,303	£15,441	£10,749	£27,568	£11,852	£14,338	£12,954	£27,568	£12,954
Totals Non-Works Costs	£2,800	£2,800	£22,704	£40,190	£35,722	£51,740	£31,522	£33,890	£44,122	£34,940	£40,972	£35,990	£31,522	£44,390	£35,303	£15,441	£10,749	£27,568	£11,852	£14,338	£12,954	£27,568	£12,954
Equipment Costs:																							
Equipment Costs:	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Totals Equipment	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Works Cost, Fees, Non-Works and Equipment Totals	£103,135	£143,360	£217,570	£524,873	£676,532	£692,549	£694,137	£696,504	£560,383	£752,031	£758,064	£753,081	£726,809	£599,704	£617,841	£670,157	£442,233	£379,197	£363,481	£365,967	£364,583	£379,197	£381,338
Quantified Risk Contingency:																							
Quantified Risk Contingency - Held by	£5,360	£11,053	£17,408	£55,426	£76,463	£76,096	£76,770	£75,507	£56,826	£82,802	£82,886	£84,116	£79,595	£61,552	£64,566	£74,126	£45,934	£35,384	£35,118	£35,903	£36,197	£36,205	£35,922
Quantified Risk Contingency Totals	£5,360	£11,053	£17,408	£55,426	£76,463	£76,096	£76,770	£75,507	£56,826	£82,802	£82,886	£84,116	£79,595	£61,552	£64,566	£74,126	£45,934	£35,384	£35,118	£35,903	£36,197	£36,205	£35,922
Works Cost, Fees, Non-Works, Equipment and Quantified Risk Contingency Totals	£108,495	£154,413	£234,978	£580,299	£752,995	£768,645	£770,907	£772,012	£617,209	£834,834	£840,949	£837,197	£806,404	£661,256	£682,408	£744,283	£488,167	£414,581	£398,598	£401,870	£400,781	£415,402	£417,260
VAT:																							
Value Added Tax (20%)	£21,699	£30,883	£46,996	£116,060	£150,599	£153,729	£154,181	£154,402	£123,442	£166,967	£168,190	£167,439	£161,281	£132,251	£136,482	£148,857	£97,633	£82,916	£79,720	£80,374	£80,156	£83,080	£83,452
Works Cost, Fees, Non-Works, Quantified Risk Contingency and VAT Totals	£130,194	£185,296	£281,974	£696,359	£903,594	£922,374	£925,088	£926,414	£740,650	£1,001,801	£1,009,139	£1,004,637	£967,685	£793,507	£818,889	£893,139	£585,800	£497,497	£478,318	£482,244	£480,937	£498,482	£500,712
VAT Reclaim:																							
Vat Reclaim (20%):	-£5,308	-£5,465	-£6,847	-£10,238	-£10,851	-£10,851	-£10,936	-£10,936	-£9,970	-£10,758	-£10,758	-£10,758	-£10,672	-£10,123	-£10,217	-£10,500	-£9,624	-£9,311	-£9,311	-£9,311	-£9,311	-£9,311	-£9,377
Works Cost, Fees, Non-Works, Equipment and Quantified Risk Contingency, VAT and VAT Reclaim Totals	£124,887	£179,830	£275,127	£686,121	£892,743	£911,524	£914,152	£915,478	£730,680	£991,043	£998,382	£993,879	£957,013	£783,384	£808,672	£882,640	£576,176	£488,186	£469,007	£472,933	£471,626	£489,171	£491,335
Optimism Bias - Excludes:																							
Optimism Bias - Excluded				£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Forecast Project Outturn Cost (for approval Purposes)	£124,887	£179,830	£275,127	£686,121	£892,743	£911,524	£914,152	£915,478	£730,680	£991,043	£998,382	£993,879	£957,013	£783,384	£808,672	£882,640	£576,176	£488,186	£469,007	£472,933	£471,626	£489,171	£491,335
Inflation Forecast (excluded to be advised by NWSSP-SES):																							
All costs escalated to completion of the Works				£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Forecast Project Outturn Cost (for approval Purposes)	£124,887	£179,830	£275,127	£686,121	£892,743	£911,524	£914,152	£915,478	£730,680	£991,043	£998,382	£993,879	£957,013	£783,384	£808,672	£882,640	£576,176	£488,186	£469,007	£472,933	£471,626	£489,171	£491,335
Additional Quantified Risk Contingency																							
Anticipated additional risk level associated with the ad hoc/bespoke nature of risks associated with a project of this nature to be held by Welsh	£24,954	£49,912	£78,611	£251,297	£348,168	£348,168	£361,697	£361,697	£272,130	£396,739	£396,739	£396,739	£383,210	£296,362	£311,180	£355,964	£217,456	£167,909	£167,909	£167,909	£167,909	£167,909	£178,305
Forecast Project Outturn Cost for Phase 2 Works	£149,840	£229,742	£353,738	£937,418	£1,240,911	£1,259,691	£1,275,849	£1,277,175	£1,002,811	£1,387,782	£1,395,120	£1,390,618	£1,340,222	£1,079,746	£1,119,852	£1,238,603	£793,632	£656,095	£636,916	£640,842	£639,534	£657,080	£669,640

OBC Cost Head / Organisation	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Totals	VAT Rating	Clarifications
	De-Mobilisation Period and Terminal Float - 16 weeks				Defects Period - 12 months														
Works Cost:																			Based on costs produced by the SCP (IHP) and reviewed by the Cost Advisor (Lee Wakemans)
Departmental Costs - not applicable																	£0	20%	Assume all Works Costs are abnormal building works
On costs :																			
Communications -																	£0	20%	Assume all Works Costs are abnormal building works
External Building																	£0	20%	Assume all Works Costs are abnormal building works
External Engineeri																	£0	20%	Assume all Works Costs are abnormal building works
Auxiliary Buildings -																	£0	20%	Assume all Works Costs are abnormal building works
Other on-																			
	£157,713	£65,212	£43,475	£81,649	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£39,052	£9,660,480	20%	
																	£0	20%	Assume all Works Costs are abnormal building works
																	£0	20%	Assume all Works Costs are abnormal building works
Sub-totals Works Cost	£157,713	£65,212	£43,475	£81,649	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£39,052	£9,660,480		
Fees:																			
Hywel Dda University Health Board - @ Year 7																			
Project	£8,500	£8,500	£8,500	£8,500	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£344,054	0%	
Health	£9,750	£9,750	£9,750	£9,750	£500	£500	£500	£500	£500	£500	£500	£500	£500	£500	£500	£2,500	£344,687	0%	
Supervisor - normal working hours	£7,500	£7,500	£7,500	£7,500													£440,271	20%	Based on 40 hours per week and benchmarked market rates. Also includes assessed hours through defects period.
Supervisor - out of	£4,000	£4,000	£4,000	£4,000													£180,000	20%	Based on 20 hours per week and benchmarked market rates
In-House	£1,577	£652	£435	£816	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£391	£96,605	20%	Based on 1.00% of Works Cost
Financial Vetting																	£0	20%	As instructed by Jason Wood (HDUHB) - 23 June 2021
VAT Recovery	£3,000																£15,000	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Audit -																	£0	20%	Included in Non-works costs
Specialist Advisors	£1,577	£652	£435	£816	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£391	£96,605	0%	Based on 1.0% of Works Cost. Consultants yet to be identified and appointed. As instructed by Jason Wood (HDUHB) 13 February 2024
Escalation on Year																	£10,950		
	£1,871	£1,871	£1,871														£22,448		
				£2,876	£2,876	£236	£236	£236	£236	£236	£236	£236	£236	£236	£236	£323	£8,440	Part 0% & Part 20%	
SCP (IHP) - @ Year 7 Framework Rates:																			
BJC - total for IHP, HLM, Hydrock Fire																	£850,000	20%	Based on actual payment assessment/certificates up to 28 January 2024 assessment
Architect																	£398,095	20%	
Civil and Structural																	£10,000	20%	
Building Services																	£39,385	20%	
Principal																	£35,341	20%	
Others:																		20%	
																	£255,555	20%	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%																	£12,595	20%	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5% and Year 9 escalation (Jul-25 to Jun-26 - assumed 5% - compounded 10.25%																	£19,365	20%	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%, Year 9 escalation (Jul-25 to Jun-26) - assumed 5% and Year 10 escalation (Jul-26 to Jun-27) - assumed 5% - compounded 15.76%																	£0	20%	
SCP (IHP) fee @ 8,5% (fee included in BJC costs)	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£65,479		
Totals Fees	£37,775	£32,925	£32,490	£34,259	£4,376	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£4,604	£3,244,874		
Non-works Costs:																			Based on costs provided by HDUHB and produced by the SCP (IHP) and reviewed by the Cost Advisor (Lee Wakemans)
Non-works Costs (refer to detailed breakdown):	£12,955	£23,982	£12,958	£13,606	£6,425	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£704,454	20%	
Totals Non-Works Costs	£12,955	£23,982	£12,958	£13,606	£6,425	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£704,454		
Equipment Costs:																			
Equipment Costs:	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	20%	As instructed by Jason Wood (HDUHB) - 13 February 2024
Totals Equipment	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0		
Works Cost, Fees, Non-Works and Equipment Totals	£208,443	£122,118	£88,922	£129,515	£10,801	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£43,657	£13,609,808		
Quantified Risk Contingency:																			
Quantified Risk Contingency - Held by	£21,504	£8,891	£5,929	£11,259	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£5,392	£1,334,192	20%	
Quantified Risk Contingency Totals	£21,504	£8,891	£5,929	£11,259	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£5,392	£1,334,192		
Works Cost, Fees, Non-Works, Equipment and Quantified Risk Contingency Totals	£229,947	£131,010	£94,851	£140,773	£10,801	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£1,736	£49,049	£14,944,000		
VAT:																			
Value Added Tax (20%)	£45,989	£26,202	£18,970	£28,155	£2,160	£347	£347	£347	£347	£347	£347	£347	£347	£347	£347	£9,810	£2,988,800	20%	
Works Cost, Fees, Non-Works, Quantified Risk Contingency and VAT Totals	£275,936	£157,212	£113,822	£168,928	£12,961	£2,084	£2,084	£2,084	£2,084	£2,084	£2,084	£2,084	£2,084	£2,084	£2,084	£58,859	£17,932,800		
VAT Reclaim:																			As instructed by Jason Wood (HDUHB) on 13 February 2024: Assume for the BJC 100% reclaim on HDUHB's directly employed consultants, other VAT reclaim opportunities to be confirmed by HDUHB's VAT Advisor and HMRC.
Vat Reclaim (20%):	-£7,181	-£6,211	-£6,124	-£6,277	-£300	-£300	-£300	-£300	-£300	-£300	-£300	-£300	-£300	-£300	-£300	-£856	-£303,444	20%	
Works Cost, Fees, Non-Works, Equipment and Quantified Risk Contingency, VAT and VAT Reclaim Totals	£268,755	£151,001	£107,698	£162,651	£12,661	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£58,002	£17,629,356		
Optimism Bias - Excludes:																			
Optimism Bias - Excluded	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	20%	
Forecast Project Outturn Cost (for approval Purposes)	£268,755	£151,001	£107,698	£162,651	£12,661	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£58,002	£17,629,356		
Inflation Forecast (excluded to be advised by NWSSP-SES):																			
All costs escalated to completion of the Works	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	20%	
Forecast Project Outturn Cost (for approval Purposes)	£268,755	£151,001	£107,698	£162,651	£12,661	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£58,002	£17,629,356		**Excluding Additional Project Risk Contingency held by Welsh Government**
Additional Quantified Risk Contingency																			
Anticipated additional risk level associated with the ad hoc/bespoke nature of risks associated with a project of this nature to be held by Welsh	£99,812	£41,271	£27,514	£51,673	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£24,715	£6,113,854	Included	
Forecast Project Outturn Cost for Phase 2 Works	£368,567	£192,272	£135,212	£214,325	£12,661	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£1,784	£82,718	£23,743,209		

Phase 2 Fire Precaution Upgrade Works at Glangwili General Hospital, Carmarthen
Employer: Hywel Dda University Health Board (HDUHB)

Estimated BJC Project Costs - OBC (Stage 2), FBC (Stage 3), Design Completion & Construction (Stage 4), Operational Commissioning (Stage 5) & Project Closure (Stage 6) - Forecast Cashflow
On-Costs - Building abnormals (Annex A):
Version 2.0 Issue - 20 February 2024
Prepared by: Lee Wakemans

leewakemans management

Clarifications:

Basis of Costs: Based on the SCP's (Integrated Healthcare Projects [IHP]) Phase Cost Plan BJC Rev 5
Risks: IHP's costs based on limited site surveys and design solutions leading to the requirement for a larger than normal Quantified Risk Contingency as discussed and agreed in principle with HDUHB and NWSSP-SES.
Provisional location adjustment: Not applicable, all rates based on project location
Inflation forecast by NWSSP-SES: Not applicable, SCP have assessed escalation for the full duration of the project on construction rates and staff and consultant's rates as follows (HDUHB have applied same escalation rates for directly appointed consultants for years 8 and 9 as assessed by IHP and Lee Wakemans):

Actual as published by NWSSP-SES: Year 2 to June 2019 (4.1%), year 3 to June 2020 (4.42%), year 4 to June 2021 -2.66% (minus), year 5 to June 2022 (5.50%), year 6 to June 2023 5.05(%) and year 7 to June 2024 (5.28%)
Forecast by IHP: year 8 to June 2025 (assessed 5%) year 9 to June 2026 (assessed 5%) and year 10 to June 2026 (assessed 5%)

OBC Cost Head / Organisation	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Totals	VAT Rating	Clarifications
	WG Approval	Contractor Mobilisation			Construction Period (excluding De-Mobilisation Period and Terminal Float) - 87 weeks																				De-Mobilisation Period and Terminal Float - 16 weeks				Defects Period - 12 months (first 3 months commercial agreement of final account)													
Works Cost (framework rates @ Year 7, Jul-23 to Jun-24, refer to escalation below) - Building abnormals:																																											Based on costs produced by the SCP (IHP) and reviewed by the Cost Advisor (Lee Wakemans)
Lower ground floor - non wards					£126,478	£126,478	£126,478	£126,478	£126,478	£126,478	£126,478	£126,478	£126,478	£126,478														£5,268												£5,268	**£1,275,312**	20%	
Ground floor wards						£130,437	£130,437	£130,437	£130,437																			£2,173												£2,173	**£526,093**	20%	
Ground floor - non wards					£68,720	£68,720	£68,720	£68,720	£68,720	£68,720	£68,720	£68,720	£68,720	£68,720	£68,720	£72,156	£72,156	£72,156										£4,008												£4,008	**£980,398**	20%	
First floor wards											£181,469	£181,469	£181,469	£181,469	£181,469	£190,542	£190,542											£5,291												£5,291	**£1,299,009**	20%	
First floor - non wards																	£65,220	£65,220	£65,220	£65,220	£65,220	£65,220	£65,220	£65,220	£65,220			£2,279												£2,329	**£591,584**	20%	
Phase 1 deferred works - lower ground floor								£11,815	£11,815	£11,815	£11,815	£11,815	£11,815															£295												£295	**£71,479**	20%	
Phase 1 deferred works - ground floor						£10,637	£10,637	£10,637	£10,637	£10,637	£10,637	£10,637	£10,637	£10,637	£10,637	£11,169	£11,169											£532												£532	**£129,771**	20%	
Phase 1 deferred works - first								£7,888	£7,888	£7,888	£7,888	£7,888	£7,888															£197												£197	**£47,722**	20%	
SCP (IHP) staff costs subject to framework rate escalation		£27,925	£55,857	£83,785	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£124,979	£135,531	£55,857	£41,892	£27,928	£38,481												£10,555	**£2,852,413**	20%	
M&E Installer (Imtech Dalkia) staff costs subject to framework rate escalation		£8,415	£16,831	£25,246	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£37,658	£40,838	£16,831	£12,623	£8,415	£11,595												£3,180	**£859,483**	20%	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%				£5,452	£8,132	£8,132	£8,132	£8,132	£8,132	£8,132	£8,132	£8,132	£8,132	£8,132	£8,132																										**£94,902**	20%	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5% and Year 9 escalation (Jul-25 to Jun-26 - assumed 5% - compounded																£16,670	£16,670	£16,670	£16,670	£16,670	£16,670	£16,670	£16,670	£18,078	£7,450	£5,588	£3,725	£5,133													**£173,337**	20%	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%, Year 9 escalation (Jul-25 to Jun-26) - assumed 5% and Year 10 escalation (Jul-26 to Jun-27) -																																								£2,165	**£2,165**	20%	
																																									£0	20%	
Sub-total	£0	£36,340	£72,687	£114,482	£365,967	£507,040	£507,040	£526,743	£526,743	£396,306	£577,775	£577,775	£577,775	£558,072	£431,594	£453,174	£518,394	£316,683	£244,527	£244,527	£244,527	£244,527	£244,527	£259,667	£145,357	£60,103	£40,069	£75,252	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£35,991	£8,903,668	20%	
																																										20%	
SCP's Fee - 8.50%	£0	£3,089	£6,178	£9,731	£31,107	£43,098	£43,098	£44,773	£44,773	£33,686	£49,111	£49,111	£49,111	£47,436	£36,686	£38,520	£44,063	£26,918	£20,785	£20,785	£20,785	£20,785	£20,785	£22,072	£12,355	£5,109	£3,406	£6,396	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£3,059	£756,812	20%	
Totals	**£0**	**£39,429**	**£78,866**	**£124,213**	**£397,074**	**£550,138**	**£550,138**	**£571,516**	**£571,516**	**£429,992**	**£626,886**	**£626,886**	**£626,886**	**£605,508**	**£468,280**	**£491,694**	**£562,457**	**£343,601**	**£265,312**	**£265,312**	**£265,312**	**£265,312**	**£265,312**	**£281,738**	**£157,713**	**£65,212**	**£43,475**	**£81,649**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£39,052**	**£9,660,480**		

Phase 2 Fire Precaution Upgrade Works at Glangwili General Hospital, Carmarthen
Employer: Hywel Dda University Health Board (HDUHB)

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Estimated BJC Project Costs - OBC (Stage 2), FBC (Stage 3), Design Completion & Construction (Stage 4), Operational Commissioning (Stage 5) & Project Closure (Stage 6) - Forecast Cashflow
Non-works Costs:
Version 2.0 Issue - 20 February 2024
Prepared by: Lee Wakemans

Clarifications:
Basis of Costs: Based on indicative estimated costs provided by HDUHB and IHP and benchmark cost data.

OBC Cost Head / Organisation	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23
	BJC (OBC & FBC equivalent stages)																
SCP's Fee -	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Sub-total	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Totals	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**

OBC Cost Head / Organisation	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
	BJC (OBC & FBC equivalent stages)			BJC - HDUHB Review and WG Scrutiny/Approval		Contractor Mobilisation - 12 weeks		
Non-works Costs:								
Hywel Dda University Health Board (@ Year 7 Framework Rate								
Legal Fees (Titling,								£2,500
Mid & West								£2,500
Business case	£2,500	£5,000	£5,000					
Planning Consulta								
Planning Applicati								
Building								£1,000
Building								
IT support for de-								£1,000
Moving patients, medical records, equipme								£1,250
District Valuer								
Welsh translatio						£300	£300	£300
Art								
BREEAM								
Statutory notice								
Temporary supplies								
Other fees & miscellaneous costs including						£2,500	£2,500	£2,500
Asbestos Consultant to								£550
Minor works associated with shutdown								
Furniture removal, storage and reinstate								
IT solutions -								£800
External electrical								
Internal facilities								
Audit								
Fire alarm general -								
Fire alarm upgrade								
SCP (IHP @ Year 7 Framework Rate								
Builder's								
Temporar								
Additiona								
Building								£8,500
Project Extranet - Viewpoint								
Contract Management - Sypro								
SCP's Fee -	£0	£0	£0	£0	£0	£0	£0	£723
Sub-total	£2,500	£5,000	£5,000	£0	£0	£2,800	£2,800	£21,623
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%								£1,081
Year 8 escalation (Jul-24 to Jun-25) - assumed 5% and Year 9 escalation (Jul-25 to Jun-26 - assumed 5%								
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%, Year 9 escalation (Jul-25 to Jun-26) - assumed 5% and Year 10 escalation (Jul								
Totals	**£2,500**	**£5,000**	**£5,000**	**£0**	**£0**	**£2,800**	**£2,800**	**£22,704**

OBC Cost Head / Organisation	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25
	Construction Period (excluding De-Mobilisation Period and Terminal Float) - 87 weeks											
Non-works Costs:												
Hywel Dda University Health Board (@ Year 7 Framework Rate												
Legal Fees (Titling,	£2,500	£2,500	£2,500									
Mid & West	£2,500	£2,500	£2,500									
Business case												
Planning Consulta												
Planning Applicati												
Building						£1,000						£1,000
Building												
IT support for de-	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750
Moving patients, medical records, equipme	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250
District Valuer												
Welsh translatio	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300
Art												
BREEAM												
Statutory notice	£1,000			£1,000			£1,000			£1,000		
Temporary supplies												
Other fees & miscellaneous costs including	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500
Asbestos Consultant to	£550	£550	£550	£550	£550	£550	£550	£550	£550	£550	£550	£550
Minor works associated with shutdown	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250
Furniture removal, storage and reinstate	£750	£750	£750	£750	£750	£750	£750	£750	£750	£750	£750	£750
IT solutions -												
External electrical	£150	£150	£150	£150	£150	£150	£150	£150	£150	£150	£150	£150
Internal facilities	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250
Audit			£2,000			£2,000			£2,000			£2,000
Fire alarm general -			£10,000			£10,000		£10,000			£10,000	
Fire alarm upgrade	£19,271	£19,271	£19,271	£19,271	£19,271	£19,271	£19,271	£19,271	£19,271	£19,271	£19,271	£19,271
SCP (IHP @ Year 7 Framework Rate												
Builder's	£500		£500		£500		£500		£500		£500	
Temporar	£500		£500		£500		£500		£500		£500	
Additiona	£1,000		£1,000		£1,000		£1,000		£1,000		£1,000	
Building												
Project Extranet - Viewpoint												
Contract Management - Sypro	£1,000		£1,000		£1,000		£1,000		£1,000		£1,000	
SCP's Fee -	£255	£0	£255	£0	£255	£0	£255	£0	£255	£0	£255	£0
Sub-total	£38,276	£34,021	£49,276	£30,021	£32,276	£42,021	£33,276	£39,021	£34,276	£30,021	£42,276	£32,021
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%	£1,914	£1,701	£2,464	£1,501	£1,614	£2,101	£1,664	£1,951	£1,714	£1,501	£2,114	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5% and Year 9 escalation (Jul-25 to Jun-26 - assumed 5%												£3,282
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%, Year 9 escalation (Jul-25 to Jun-26) - assumed 5% and Year 10 escalation (Jul												
Totals	**£40,190**	**£35,722**	**£51,740**	**£31,522**	**£33,890**	**£44,122**	**£34,940**	**£40,972**	**£35,990**	**£31,522**	**£44,390**	**£35,303**

OBC Cost Head / Organisation	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26
Non-works Costs:												
Hywel Dda University Health Board (@ Year 7 Framework Rate												
Legal Fees (Titling,												
Mid & West												
Business case												
Planning Consulta												
Planning Applicati												
Building												
Building												
IT support for de-	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750	£1,750
Moving patients, medical records, equipme	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250
District Valuer							£2,000	£2,000	£2,000	£2,000	£2,000	£2,000
Welsh translatio	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300
Art												
BREEAM												
Statutory notice	£1,000			£1,000								
Temporary supplies												
Other fees & miscellaneous costs including	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500	£2,500
Asbestos Consultant to	£550	£550	£550	£550	£550	£550	£550	£550	£550	£550	£550	£550
Minor works associated with shutdown	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250
Furniture removal, storage and reinstate	£750	£750	£750	£750	£750	£750	£750	£750	£750	£750	£750	£750
IT solutions -												
External electrical	£150	£150	£150	£150	£150	£150	£150	£150	£150	£150	£150	£150
Internal facilities	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,250	£1,251	£1,252	£1,253	£1,254
Audit			£2,000			£2,000						
Fire alarm general -			£10,000				£10,000			£10,000		
Fire alarm upgrade												
SCP (IHP @ Year 7 Framework Rate												
Builder's	£500		£500		£500		£500					
Temporar	£500		£500		£500		£500					
Additiona	£1,000		£1,000		£1,000		£1,000					
Building												
Project Extranet - Viewpoint												
Contract Management - Sypro	£1,000		£1,000		£1,000		£1,000					
SCP's Fee -	£255	£0	£255	£0	£255	£0	£255	£0				
Sub-total	£14,005	£9,750	£25,005	£10,750	£13,005	£11,750	£25,005	£11,750	£11,751	£21,752	£11,753	£11,754
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%												
Year 8 escalation (Jul-24 to Jun-25) - assumed 5% and Year 9 escalation (Jul-25 to Jun-26 - assumed 5%	£1,436	£999	£2,563	£1,102	£1,333	£1,204	£2,563	£1,204	£1,204	£2,230	£1,205	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%, Year 9 escalation (Jul-25 to Jun-26) - assumed 5% and Year 10 escalation (Jul												£1,852
Totals	**£15,441**	**£10,749**	**£27,568**	**£11,852**	**£14,338**	**£12,954**	**£27,568**	**£12,954**	**£12,955**	**£23,982**	**£12,958**	**£13,606**

OBC Cost Head / Organisation	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Totals	VAT Rating	Clarifications
	Defects Period - 12 months (first 3 months commercial agreement of final account)														
Non-works Costs:															
Hywel Dda University Health Board (@ Year 7 Framework Rate															
Legal Fees (Titling,													**£10,000**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Mid & West													**£10,000**	20%	As instructed by Christine Thomas (HDUHB) - 8 February 2024
Business case													**£12,500**	20%	As instructed by Christine Thomas (HDUHB) - 8 February 2024
Planning Consulta													**£0**	20%	Agreed with Jason Wood (HDUHB) and Miles Brown (Mace), not required - 13 February 2023
Planning Applicati													**£0**	20%	Agreed with Jason Wood (HDUHB) and Miles Brown (Mace), not required - 13 February 2023
Building													**£3,000**	20%	Minimal advice to support the Local Authority's Building Control
Building													**£0**	20%	Included by IHP
IT support for de-	£1,000												**£44,000**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Moving patients, medical records, equipme	£1,250												**£32,500**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
District Valuer	£1,000												**£13,000**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Welsh translatio	£300												**£8,400**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Art													**£0**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
BREEAM													**£0**	20%	Not required, confirmed by NWSSP-SES on previous phases
Statutory notice													**£6,000**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Temporary supplies													**£0**	20%	Included by IHP
Other fees & miscellaneous costs including													**£67,500**	20%	Note required as instructed by Christine Thomas (HDUHB) - 13 February 2024
Asbestos Consultant to													**£13,750**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Minor works associated with shutdown													**£30,000**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Furniture removal, storage and reinstate													**£18,000**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
IT solutions -													**£800**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
External electrical													**£3,600**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Internal facilities													**£30,010**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Audit	£2,000												**£14,000**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Fire alarm general -													**£70,000**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
Fire alarm upgrade													**£231,250**	20%	As instructed by Christine Thomas (HDUHB) - 13 February 2024
SCP (IHP @ Year 7 Framework Rate															
Builder's													**£5,000**	20%	Provided by IHP
Temporar													**£5,000**	20%	Provided by IHP
Additiona													**£10,000**	20%	Provided by IHP
Building													**£8,500**	20%	Provided by IHP
Project Extranet - Viewpoint													**£0**	20%	Confirmed included by IHP
Contract Management - Sypro													**£10,000**	20%	Provided by IHP
SCP's Fee -	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£3,273**	20%	Provided by IHP
Sub-total	£5,550	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£660,083**		
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%													**£21,319**	20%	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5% and Year 9 escalation (Jul-25 to Jun-26 - assumed 5%													**£20,325**	20%	
Year 8 escalation (Jul-24 to Jun-25) - assumed 5%, Year 9 escalation (Jul-25 to Jun-26) - assumed 5% and Year 10 escalation (Jul	£875	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0		**£2,727**	20%	
Totals	**£6,425**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£0**	**£704,454**		

Appendix Four – Programme

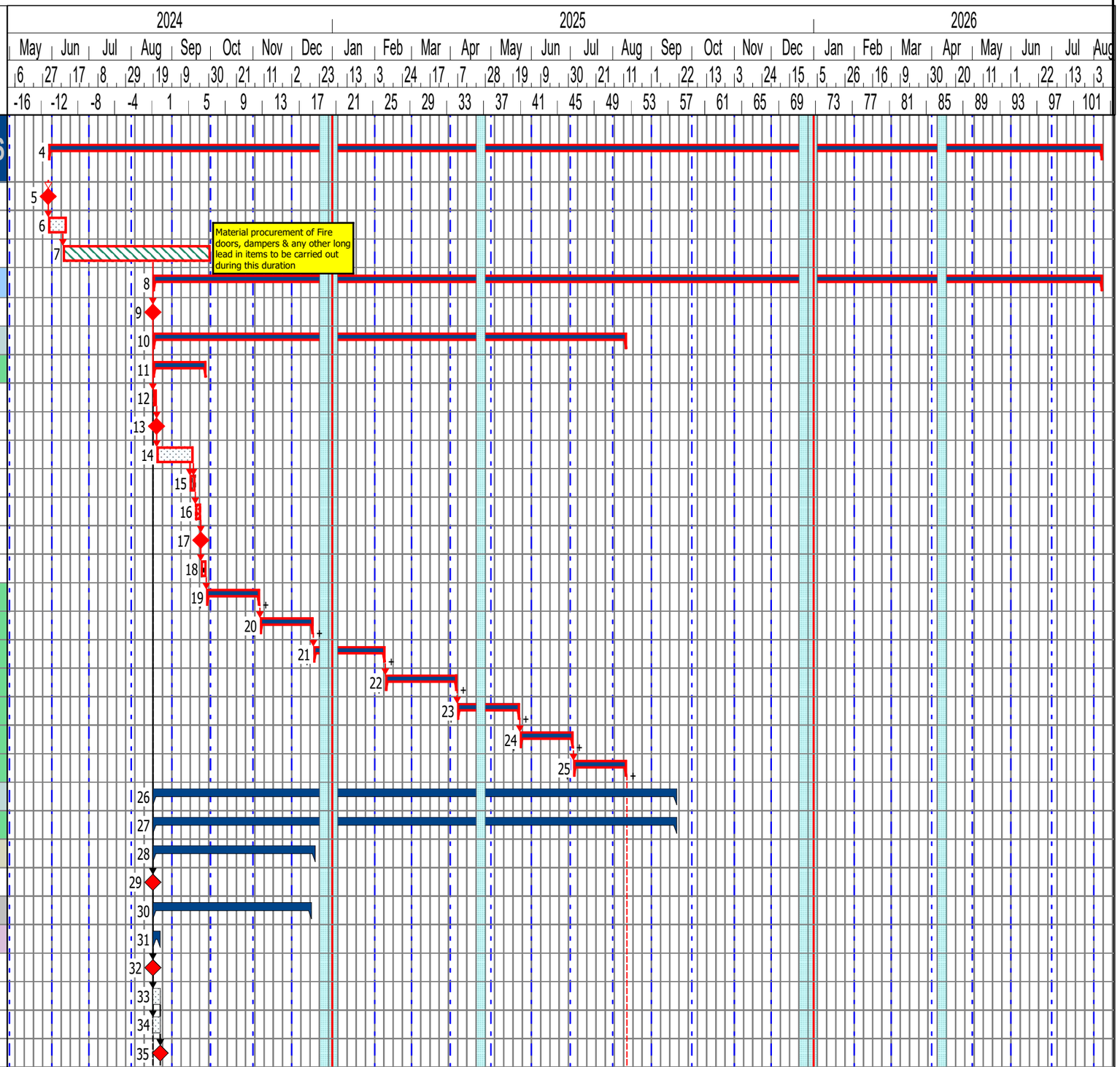
Adeiladu GIG i Gymru
NHS Building for Wales

Withybush General Hospital FPS - PHASE 2

Hywel Dda University Health Board

IHP

Line	Name	Start	Working Duration	Finish
4	**Contract Period**	**30 May 24**	**108.3w**	**07 Aug 26**
5	Issue Confirmation Notice	30 May 24		30 May 24
6	IHP Mobilisation	30 May 24	2w	12 Jun 24
7	Design & Procurement Lead In	11 Jun 24	16w	30 Sep 24
8	**Construction**	**16 Aug 24**	**97w**	**07 Aug 26**
9	Start on site	16 Aug 24		16 Aug 24
10	**De-canted Wards**	**16 Aug 24**	**48.4w**	**12 Aug 25**
11	Ward 3 - L101	16 Aug 24	5.8w	26 Sep 24
12	HB Decant	16 Aug 24	0.4w	20 Aug 24
13	Access date	20 Aug 24		20 Aug 24
14	Construction works	20 Aug 24	4w	17 Sep 24
15	Quality Supervisor sign off	13 Sep 24	0.6w	18 Sep 24
16	Builders Clean	18 Sep 24	0.6w	23 Sep 24
17	Handover	23 Sep 24		23 Sep 24
18	HB Clinical Clean & Re-Occupy	23 Sep 24	0.6w	26 Sep 24
19	Endoscopy - GF03	26 Sep 24	5.8w	06 Nov 24
20	Ward 1- GF02	06 Nov 24	5.8w	17 Dec 24
21	Puffin Ward - GF18	17 Dec 24	5.8w	10 Feb 25
22	HDU/ITU- L103	10 Feb 25	7.8w	04 Apr 25
23	Ward 4 - L102	04 Apr 25	5.8w	22 May 25
24	MDU/MLU - L108	22 May 25	5.8w	02 Jul 25
25	CHEMO Day Unit - L107	02 Jul 25	5.8w	12 Aug 25
26	**Non-Ward areas**	**16 Aug 24**	**53.8w**	**18 Sep 25**
27	Ground Floor	16 Aug 24	53.8w	18 Sep 25
28	Gynae/Antenatal/Physio- GF09 & GF10	16 Aug 24	17.6w	18 Dec 24
29	Access Date	16 Aug 24		16 Aug 24
30	Construction Works	16 Aug 24	17.2w	16 Dec 24
31	Batch 1	16 Aug 24	0.8w	22 Aug 24
32	Access Date	16 Aug 24		16 Aug 24
33	R123 - Waiting Area	16 Aug 24	0.8w	22 Aug 24
34	Cubicle One	16 Aug 24	0.8w	22 Aug 24
35	Handover	22 Aug 24		22 Aug 24



Programme No: HE0006/WGH/FPS/Ph2/BJC	
Revision: R5	Date 20/10/2023
Rev Comment:	

Hywel Dda University Local Health Board.

Programme Status:	
Prepared For (Owner): Sion Rees	
Drawn By (Planner): OO	
Region: SW & W	Progress Date: 24/01/2024

'Note that the Duration Column Shows Working Weeks and Does Not Include Holidays'

Filename C:\Users\omaro\OneDrive - VINCI Construction\Documents\Powerproject\Projects\Withybush General Hospital FPS - PHASE 2 (IHP stage 3).pp

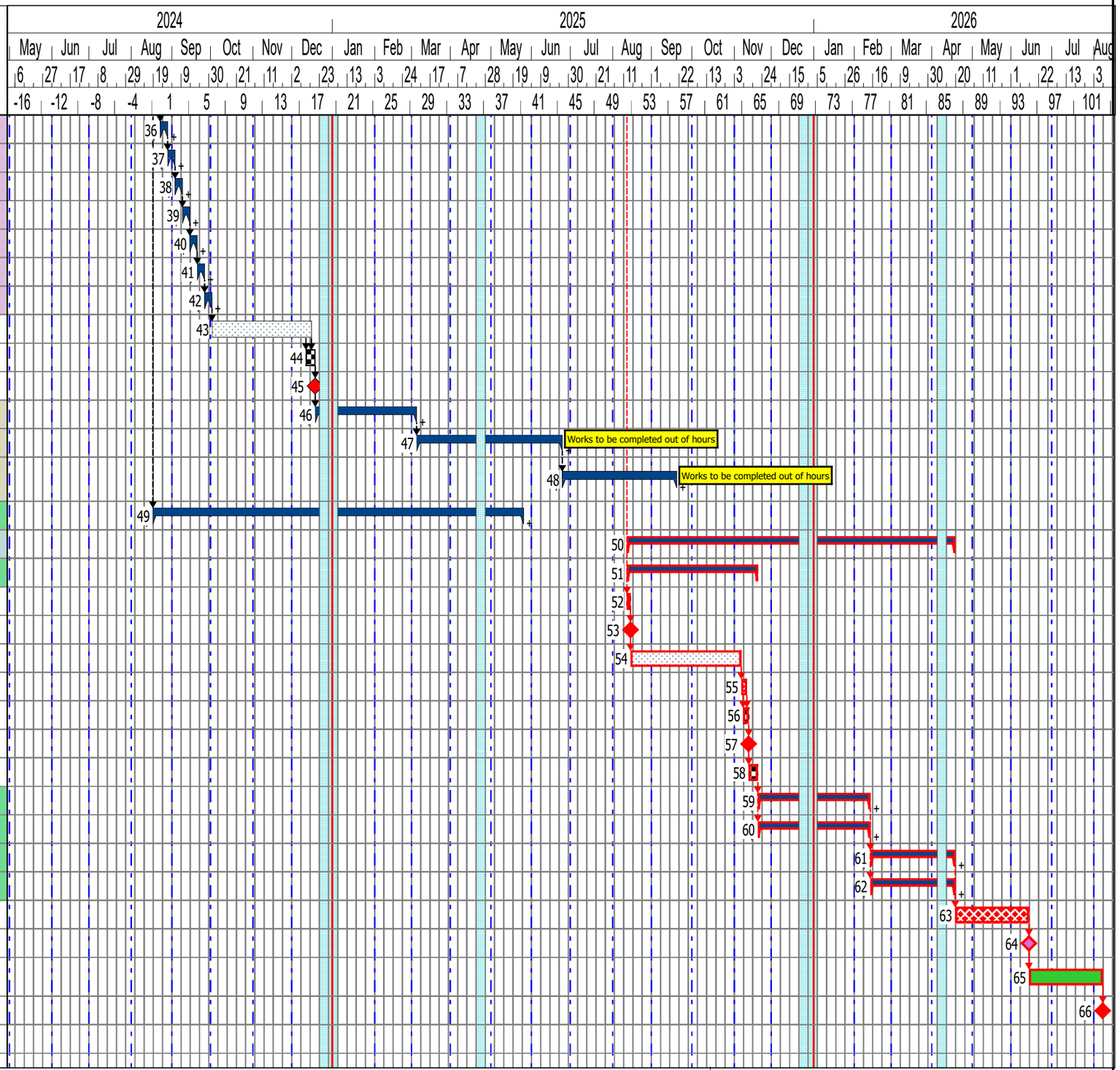
Adeiladu GIG i Gymru
NHS Building for Wales

Withybush General Hospital FPS - PHASE 2

Hywel Dda University Health Board

IHP

Line	Name	Start	Working Duration	Finish
36	Batch 2	22 Aug 24	0.8w	28 Aug 24
37	Batch 3	28 Aug 24	0.8w	03 Sep 24
38	Batch 4	03 Sep 24	0.8w	09 Sep 24
39	Batch 5	09 Sep 24	0.8w	13 Sep 24
40	Batch 6	13 Sep 24	0.8w	19 Sep 24
41	Batch 7	19 Sep 24	0.8w	25 Sep 24
42	Batch 8	25 Sep 24	0.8w	01 Oct 24
43	Reamining 27 Rooms	01 Oct 24	10.8w	16 Dec 24
44	Quality Supervisor sign off	11 Dec 24	1w	18 Dec 24
45	Handover	18 Dec 24		18 Dec 24
46	Outpatients B - GF 14	18 Dec 24	9w	05 Mar 25
47	Radio - diagnostic	05 Mar 25	14.8w	24 Jun 25
48	Laboratory Pathology & Blood Sciences - GF11	24 Jun 25	12.4w	18 Sep 25
49	Lower Ground Floor	16 Aug 24	37.2w	26 May 25
50	**Theatres**	**12 Aug 25**	**32.6w**	**17 Apr 26**
51	Theatre Recovery - L104	12 Aug 25	14.2w	19 Nov 25
52	HB Decant	12 Aug 25	0.4w	14 Aug 25
53	Access date	14 Aug 25		14 Aug 25
54	Construction Works	14 Aug 25	12w	06 Nov 25
55	Builders Clean	06 Nov 25	0.6w	11 Nov 25
56	Quality Supervisor sign off	07 Nov 25	0.6w	12 Nov 25
57	Handover	12 Nov 25		12 Nov 25
58	HB Deep Cleaning & Re-Occupy	12 Nov 25	1w	19 Nov 25
59	Theatre 4 - L104	19 Nov 25	10.2w	12 Feb 26
60	Theatre 3 - L104	19 Nov 25	10.2w	12 Feb 26
61	Theatre 1 - L105	12 Feb 26	8.2w	17 Apr 26
62	Theatre 2 - L105	12 Feb 26	8.2w	17 Apr 26
63	De-mobilisation Period	17 Apr 26	8w	12 Jun 26
64	Planned Completion	12 Jun 26		12 Jun 26
65	Terminal Float (make into buffer task just for progress entry)	12 Jun 26	8w	07 Aug 26
66	Completion Date	07 Aug 26		07 Aug 26



Programme No: HE0006/WGH/FPS/Ph2/BJC
Revision: R5 | Date 20/10/2023
Rev Comment:

Hywel Dda University Local Health Board.

Programme Status:
Prepared For (Owner): Sion Rees
Drawn By (Planner): OO
Region: SW & W | Progress Date: 24/01/2024

'Note that the Duration Column Shows Working Weeks and Does Not Include Holidays'

Filename C:\Users\omaro\OneDrive - VINCI Construction\Documents\Powerproject\Projects\Withybush General Hospital FPS - PHASE 2 (IHP stage 3).pp

Appendix Five – Risk Register

Project: Withybush General Hospital Fire Enforcement Works - Phase 2 Main Works

Project Risk Register - Version 2 - Health Board - 13 November 2023

Identification				Assessment					Management				Risk Quantification Calculation			
Nr	Risk Description	Risk Consequence: 1. Time 2. Cost 3. Quality 4. Operational	Risk Owner	Probability	Impact	Score	Risk Allocation	Category	Management Actions	Action Owner	Review Date	Comments	Cost if it happens (£)	Likelihood Factor	Expected Value (£)	Basis
	STRATEGIC/PLANNING/PROGRAMME RISKS															
S1	The Contractor's ability to undertake the works (or part thereof) is directly affected by a COVID-19/Pandemic type event. There is risk for disruptions, close down, delays and lock down of workfaces or the entire site due to actions taken by Government, Local Authorities, the Hospital Management, the Client and/or the Constructor that are due to the risk of a COVID - 19/Pandemic type infection spread. Business closures and furloughed staff restricting supply of materials and services, social distancing measures, reduced workforce due to illness, compliance with he Construction Leadership Council's Site Operating Procedures.	Time, Cost, Operational	Health Board	3	5	15		Programme	As applicable; Works on site to be constantly reviewed to ensure compliance with the Construction Leadership Council's Site Operating Procedures, as well as Health Board Management Plan and Hywel Dda are to be updated regularly on the impact to programme and costs on the project; Contractor to provide a COVID-19/Pandemic Management Plan; Contractor to provide a financial/timeline (if any) impact assessment for each COVID-19 Management Plan, which needs to include mitigating actions; Any financial consequences for the Authority must exclude any profit element and be prepared on an open book and transparent basis; Contractor to seek approvals in a timely manner and applications deemed late will be dismissed.	Health Board	Ongoing		£48,825	0.30	£14,648	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S2	Nature of works resulted in contract choice NEC Option E to encourage contractor tendering, as a result this presents challenges relative to cost and programme control.	Cost	Health Board	3	5	15		Strategic	Apply lessons learnt from Phase 1 including regular monitoring of site records. Additional allowances in cost estimate/budget. Larger than typical project risk contingency, including allowance held by WG. HDUHB to continue to provide additional site supervision to monitor activity on site.	Health Board/SCP	Ongoing		£47,847	0.60	£28,708	Assume cost if it happens 0.5% of Works Cost
S3	Scope of works not fully established/Incomplete surveys during BJC stage (e.g. vertical compartmentation) to inform the design, programme and cost due to access to only a sample of locations across hospital.	Time, Cost, Quality	Health Board	4	5	20		Strategic	Base design on agreed scenarios and assumptions from survey output. For example using findings from ward surveys taking worst case scenario for number of penetrations etc and applying that across other areas. Suitable allowances to be agreed with the SCP within cost plan and project risk contingency in line with assumptions regarding out of hours works or phased works or decanted phasing of works.	Health Board/SCP	Ongoing		£97,650	0.40	£39,060	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S4	Risk regarding delivering the BJC and works within the MWWFRS timescales and this risk is associated with further enforcement action - Various causes of delay in a live hospital resulting in delay of delivery of works.	Time, Cost	Health Board	3	4	12		Programme	HB ongoing and open dialogue with MWWFRS regarding progress and programme. Ensure programme is actively monitored and request for extension justified and explained.	Health Board	Ongoing		£8,500	0.48	£4,080	Based on a 1 week design delay. £8,500 a week for SCP and direct fees.
S5	The extent of fire strategy and fire stopping compliance works in relation to fire service improvement notices are underestimated.	Time, cost	Health Board	3	4	12		Programme	Fire strategy developed by the HB in collaboration with the SCP and their design team and endorsement sought from MWWFRS and then instructed by the HB for the preferred option.	Health Board	Ongoing		£48,825	0.24	£11,718	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S6	Hospital activities impact on proposed phasing. Hospital unable to release work areas in accordance with the programme due to clinical needs of patients. Anticipated decant strategy/decant ward does not happen as expected.	Time, cost	Health Board	4	5	20		Strategic	Early engagement with the Hospital and Management Teams to discuss requirements and expectations as well as define phasing strategy. Ongoing coordination between project team and HB during construction phase. P2 works planned on basis of internal decant ward. External decant ward completion anticipated end of 2023. Non ward areas works to planned per brief information i.e. phased within areas or out of hours.	Health Board/SCP	Ongoing		£195,300	0.80	£156,240	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S7	Impact of volatile market/inflation on labour, plant and materials.	Time, Cost	Health Board	3	5	15		Programme / Financial	Ongoing monitoring of market costs.	SCP	Ongoing		£47,847	0.60	£28,708	Assume cost if it happens 0.5% of Works Cost
S8	Risk that sign off will not be received in time from project Stakeholders, TA's or Technical Services.	Time	Health Board	2	3	6		Programme	JW/CT to direct stakeholders re sign off of documents in a timely manor.	Health Board	Ongoing		£17,000	0.24	£4,080	Based on a 2 week design delay. £8,500 a week for SCP and direct fees.
S9	There is a risk that elements of the existing infrastructure outside of project scope impacts on the project works requires remedial work - eg fire alarms, duct dampers.	Time, Cost	Health Board	3	3	9		Strategic	SCP notifies HB to coordinate internal estates resource accordingly to implement infrastructure works if required to facilitate fire upgrade works. SCP to develop design in design proposals period if/when scenarios arise and identified through contract management procedures.	SCP	Ongoing		£48,825	0.36	£17,577	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S10	There is a risk that the project will be impacted by delays in governance/approvals process e.g. BJC etc.	Time	Health Board	3	3	9		Strategic	HB to liaise with Boards, NWSSP and WG to mitigate delay risk.	Health Board	Ongoing		£17,000	0.36	£6,120	Based on a 2 week design delay. £8,500 a week for SCP and direct fees.
S11	Changes to Client Team key personnel - A key person from either team leaves and new working practices and relationships need to be established.	Time, Quality, Operational	Health Board	3	2	6		Strategic	Communication with all stakeholders regularly throughout the project.	Health Board	Ongoing		£17,000	0.24	£4,080	Based on a 2 week design delay. £8,500 a week for SCP and direct fees.
S12	Changes to SCP key personnel - A key person from either team leaves and new working practices and relationships need to be established.	Time, Quality, Operational	Health Board	4	3	12		Strategic	Communication with all stakeholders regularly throughout the project.	SCP	Ongoing		£34,000	0.48	£16,320	Based on a 4 week design delay. £8,500 a week for SCP and direct fees.
S13	Other hospital works concurrent with and disrupting our works.	Time, cost	Health Board	4	5	20		Strategic	Early engagement with the Hospital to determine. Internal HB communication regarding impact of potential other hospital projects. HB to provide ongoing updates as elements are known. Example issue of works programmes provided to SCP.	Health Board	Ongoing		£48,825	0.40	£19,530	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S14	Robust programme set for the main construction phase with allowances/provisions for access challenges agreed with Health Board and its team.	Time, Quality, Operational	Health Board	3	4	12		Programme	Review with appointed Designed for Life: Building for Wales Supply Chain Partner (SCP) regularly as design develops. Lessons learnt from Phase 1. Programme allowance to be made for decant/reoccupation time period by HB of areas. Consideration made for OOH working, phased working approach, decant of wards.	Health Board/SCP	Ongoing		£48,825	0.24	£11,718	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S15	Public engagement plans / processes are delayed / poorly coordinated.	Strategic	Health Board	2	3	6		Strategic	Public engagement info published by HB periodically and as needed.	Health Board	Ongoing		£48,825	0.24	£11,718	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S16	Staff Engagement plans / processes are delayed / poorly coordinated.	Strategic	Health Board	2	3	6		Strategic	Early and ongoing engagement with stakeholders/staff members according to areas of work.	Health Board	Ongoing		£48,825	0.18	£8,789	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.

Nr	Risk Description	Risk Consequence: 1. Time 2. Cost 3. Quality 4. Operational	Risk Owner	Probability	Impact	Score	Risk Allocation	Category	Management Actions	Action Owner	Review Date	Comments	Cost if it happens (£)	Likelihood Factor	Expected Value (£)	Basis
S17	HB emergency events disrupting / suspending / ceasing the works.	Time, Cost, Quality	Health Board	2	5	10		Programme / Financial	To be managed on an as needed basis according to event with alternative work areas for SCP to be implemented. HB to seek and issue documentation outlining emergency event information. Instruction issued by the HB as to action to be undertaken according to event type.	Health Board	Ongoing		£48,825	0.30	£14,648	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S18	Change of MWWFRS Fire Officer and potential additional requirements from replacement. Kris Steele currently in place.	Time, Cost, Quality	Health Board	3	5	15		Programme / Financial	Ongoing liaison/communication.	Health Board	Ongoing		£97,650	0.45	£43,943	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of
S19	MWWFRS removal of fire notice at completion of works.	Time, Cost	Health Board	3	5	15		Strategic	Early and ongoing engagement with parties - eg MWWFRS reviewing the works in accordance with endorsement. Appointed Supervisor reviewing and signing off the works in	Health Board/SCP	Ongoing		£48,825	0.45	£21,971	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of
S20	Requirement for over boarding to achieve fire rating to compartments.	Time, Cost	Health Board	3	5	15		Programme / Financial	Consideration of cost and programme to made in BJC allowances. Reduced phase 2 scope limits locations of 60 minute compartments.	Health Board/SCP	Ongoing		£97,650	0.38	£36,619	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
	FINANCIAL RISKS															
F1	Capital costs underestimated.	Cost, time	Health Board	4	5	20		Financial	Review as part of BJC development, including surveys, design, programming all influencing cost. Supported by robust project risk contingency fund similar to Phase 1 to be agreed with HB.	Health Board	Ongoing		£14,354	0.50	£7,177	Assume cost if it happens 0.15% of Works Cost
F2	Risk that the main contractor could fail.	Time, cost	Health Board	1	3	3		Financial	Welsh Government financially stable SCP.	Health Board	Ongoing		£4,785	0.08	£359	Assume cost if it happens 0.05% of Works Cost
F3	Risk of other subcontractor failure.	Time, cost	Health Board	3	5	15		Financial	SCP to ensure financial stability of subcontractors as part of tendering process.	SCP	Ongoing		£4,785	0.38	£1,794	Assume cost if it happens 0.05% of Works Cost
F4	Bankruptcy of suppliers.	Time, cost	Health Board	3	5	15		Financial	SCP to ensure financial stability of suppliers as part of tendering process.	Health Board/SCP	Ongoing		£4,785	0.38	£1,794	Assume cost if it happens 0.05% of Works Cost
F5	There is the risk that the rate for VAT will change again.	Cost	Health Board	1	3	3		Financial	Government policy to be monitored.	Health Board	Ongoing		£4,785	0.08	£359	Assume cost if it happens 0.05% of Works Cost
F6	Significant changes in inflation of key materials or shortages	Time, cost, quality	Health Board	3	3	9		Financial	Contractor to procure the materials in a timely manner. Option E so HB take cost risk.	Health Board/SCP	Ongoing		£4,785	0.23	£1,077	Assume cost if it happens 0.05% of Works Cost
F7	Increased costs due to unknown works.	Time, cost, quality	Health Board	4	5	20		Financial	Contractor to procure the materials in a timely manner. Option E so HB take cost risk.	Health Board/SCP	Ongoing		£4,785	0.50	£2,392	Assume cost if it happens 0.05% of Works Cost
F8	Increased costs due to Statutory changes during the works.	Time, cost, quality	Health Board	3	4	12		Financial	Monitor statutory changes during the works.	Health Board/SCP	Ongoing		£4,785	0.30	£1,435	Assume cost if it happens 0.05% of Works Cost
F9	Additional non works costs incurred for unforeseen circumstances; i.e. additional decant requirements, maintenance issues etc.	Time, cost	Health Board	3	5	15		Financial	Non works allowances to be included within the BJC. CA to liaise with HB/SCP.	Health Board	Ongoing		£4,785	0.38	£1,794	Assume cost if it happens 0.05% of Works Cost
	DESIGN RISKS at BJC or Construction Stage															
D1	MWWFRS/HB Fire Officer Requirements - Unforeseen items required to meet the fire officer's requirements.	Time, Cost	Health Board	2	5	10		Design	Defined Fire Strategy produced for endorsement by MWWFRS. HB will engage with the NWSSP Fire Officers and MWWFRS at an early stage so that the requirements can be agreed and incorporated in a timely manner, Fire Strategy approval etc.	Health Board/SCP	Ongoing		£97,650	0.35	£34,178	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D2	Scope of works changing arising from Hospital request, third party requirements (e.g. fire officer/building control), general briefing changes.	Time, cost	Health Board	2	4	8		Design	Ongoing management by HB client team.	Health Board	Ongoing		£2,871	0.32	£919	Assume cost if it happens 0.03% of Works Cost
D3	Risk that there will be changes in Building Regs, general statutory changes and changes to Health Board Standards after design proposals.	Cost, time	Health Board	2	3	6		Design	Ensure all changes prior to tender are identified. Additional changes, if any, to be managed as part of contract admin.	Health Board	Ongoing		£2,871	0.24	£689	Assume cost if it happens 0.03% of Works Cost
D4	Existing non project specific survey information is inaccurate or incomplete.	Time, Cost	Health Board	4	3	12		Design	SCP to check information as part of the design process and advise/request additional information from HB as appropriate.	Health Board/SCP	Ongoing		£195,300	0.24	£46,872	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D5	Existing structural defects not apparent at time of submitting design proposals (i.e. after surveys completed)	Time, cost	Health Board	3	3	9		Design	SCP to notify any findings to HB. Works to be captured early/as soon as they become apparent, with contract administration process.	Health Board/SCP	Ongoing		£47,847	0.23	£10,766	Assume cost if it happens 0.50% of Works Cost
D6	Design / scope is not compliant with potential changes to Hospital Fire Strategy & Evacuation strategy.	Time, Cost, Quality, Operational	Health Board	2	5	10		Design	Fire strategy for phase 2 developed as part of the BJC and approved by HB/NWSSP fire leads and endorsed by MWWFRS.	Health Board	Ongoing		£47,847	0.25	£11,962	Assume cost if it happens 0.50% of Works Cost
D7	Infection control sign off of details is delayed or not acceptable.	Time, Operational	Health Board	2	3	6		Design	Include as key milestones on programme to manage expectations. Meetings to be arranged with key stakeholders as necessary. i.e infection control.	Health Board/SCP	Ongoing		£97,650	0.15	£14,648	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D8	Compliance with HTMs / HBNs.	Time, Cost, Quality	Health Board	3	3	9		Design	Review designs/derogation schedule to be SCP developed and approved by HB.	Health Board/SCP	Ongoing		£97,650	0.32	£30,760	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D9	Consequential improvements requiring building control approval.	Time, Cost, Quality	Health Board	2	3	6		Design	To be managed through contract administration process as required. Consequential improvements as a result of fire upgrade works no expected. Review designs/derogation schedule to be approved.	Health Board	Ongoing		£23,924	0.15	£3,589	Assume cost if it happens 0.25% of Works Cost
D10	Existing partitions/walls in poor/dangerous structural condition or not meeting fire and smoke resistance requirements.	Time, Cost, Quality	Health Board	3	4	12		Design	If identified carry out survey and identify structural deficiencies and remedial works. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	SCP	Ongoing		£23,924	0.30	£7,177	Assume cost if it happens 0.25% of Works Cost
D11	Existing wall construction not as fire tested ie 2 layers 9.5mm plasterboard	Time, Cost, Quality	Health Board	3	4	12		Design	If identified carry out survey and identify structural deficiencies and remedial works. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	SCP	Ongoing		£23,924	0.30	£7,177	Assume cost if it happens 0.25% of Works Cost
D12	Existing door sets not meeting requirements.	Time, Cost, Quality	Health Board	3	4	12		Design	All doors associated with phase 2 fire strategy to be surveyed to inform requirements at construction stage. Door repair and replacement works being carried out by HB/Fire service approved FIRAS accredited contractor. Appropriate costing allowance for door works assumed replace for BJC costing.	SCP	Ongoing		£33,493	0.30	£10,048	Assume cost if it happens 0.35% of Works Cost
D13	Aesthetic outcomes of the Works - increase decorations etc	Time, Cost, Quality	Health Board	2	3	6		Design	Stakeholder engagement - manage expectations e.g if carrying out works within room, 1 wall will be decorated and existing 3 will have a different finish.	Health Board/SCP	Ongoing		£23,924	0.15	£3,589	Assume cost if it happens 0.25% of Works Cost
D14	Certification of existing glazed screens / doors / windows	Time, Cost, Quality	Health Board	3	4	12		Design	Carry out survey and identify deficiencies/certification and remedial works as part of construction stage to confirm if replacement required.	Health Board/SCP	Ongoing		£33,493	0.30	£10,048	Assume cost if it happens 0.25% of Works Cost

Nr	Risk Description	Risk Consequence: 1. Time 2. Cost 3. Quality 4. Operational	Risk Owner	Probability	Impact	Score	Risk Allocation	Category	Management Actions	Action Owner	Review Date	Comments	Cost if it happens (£)	Likelihood Factor	Expected Value (£)	Basis
D15	Completeness, adequacy and condition of the existing M&E record information and requirement for services diversions.	Time, Cost, Quality	Health Board	3	4	12		Design	Establish existing condition of services for diversions / modification of M&E if required with variance from BJC reported to project team. Surveys to establish flow rates 'before and after' service diversion to confirm reduction. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	SCP	Ongoing		£195,300	0.42	£82,026	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D16	Agree scope and performance for the installation of new fire dampers (FSD/FD)	Time, Cost, Quality	Health Board	1	4	4		Design	Briefing information issued via PMI as part of Phase 2 confirming damper requirements and/or approved design.	Health Board	Ongoing		£48,825	0.14	£6,836	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D17	Additional site attendance/design management from design team over anticipated input.	Cost, time	Health Board	3	3	9		Design	Allowance made in budgets, however, potential for excessive requirements - allow in risk.	Health Board	Ongoing		£33,493	0.32	£10,550	Assume cost if it happens 0.25% of Works Cost
D18	Certification of existing fire stopping works.	Time, Cost, Quality	Health Board	3	4	12		Design	SCP to identify any existing as built fire stopping to client team on an as found basis for fire stopping replacement or derogation to be agreed/confirmed by MWWFRS.	Health Board/SCP	Ongoing		£33,493	0.42	£14,067	Assume cost if it happens 0.25% of Works Cost
D19	Existing fire alarm system sufficiency or extension requirements.	Time, Cost, Quality	Health Board	3	3	9		Design	Design team/SCP to identify any findings of insufficiency of existing fire alarm associated with scope being completed as part of Phase 2 and managed on an as needed basis through contract administration.	Health Board/SCP	Ongoing		£33,493	0.32	£10,550	Assume cost if it happens 0.25% of Works Cost
D20	Compatibility of installed & existing equipment/systems etc.	Time, Cost, Quality	Health Board	3	3	9		Design	Any findings to be identified by SCP and engineered judgement to be made for each scenario.	Health Board	Ongoing		£33,493	0.32	£10,550	Assume cost if it happens 0.25% of Works Cost
	SITE & CONSTRUCTION RISKS															
C1	Control of noise - noise levels during construction not acceptable to hospital causing works to stop.	Time, cost	Health Board	2	4	8		Construction	SCP Safe System of Work in place. Hospital to advise on a specific times/periods when specific restriction apply during early meetings. Ongoing communication with Estates lead and clinical lead on	Health Board/SCP	Ongoing		£48,825	0.28	£13,671	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C2	Control of dust - both internally and externally - not managed appropriately causing works to stop.	Time, Cost, Operational	Health Board	2	4	8		Construction	SCP Safe System of Work in place. e.g extraction, wiping down, vacuum. Ongoing Communication with Estates lead and clinical lead on works stopping etc. Cutting station locations to be agreed with HB.	SCP	Ongoing		£48,825	0.28	£13,671	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C3	Disruption to existing hospital services during construction.	Time, Cost, Operational	Health Board	3	5	15		Construction	Liaise with Hospital regularly throughout the project. Contractor strategy to be developed as part of BJC with programme reflecting working methodology. Ongoing Communication with Estates lead and clinical lead on planned works - weekly coordination/lookahead. SCP Safe System of Work in place and agreed with stakeholders.	SCP	Ongoing		£195,300	0.53	£102,533	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C4	Ward disruption to works - Events happening on wards results in contractors having to stop works.	Time, cost	Health Board	1	4	4		Programme	Hospital wards/wings to be shut down and decanted during construction works.	Health Board	Ongoing		£48,825	0.14	£6,836	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C5	There is a risk that the weather will impact on site progress.	Time, Cost, Quality	Health Board	1	3	3		Construction	SCP to ensure effective mitigation measures in place including protection. Majority of works internal.	SCP	Ongoing		£48,825	0.11	£5,127	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C6	Discovery of vermin - Specialist removal required; delay to works.	Time	Health Board	2	5	10		Construction	Hywel Dda to commission surveys as needed. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	Health Board/SCP	Ongoing		£48,825	0.35	£17,089	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C7	Delayed delivery times - Delay or disruption of the Works. Re-sequencing of Works or out of hours works required.	Time	Health Board	3	2	6		Construction	Contractor strategy to be developed to deal with such circumstances and SCP ongoing coordination with HB.	Health Board/SCP	Ongoing		£48,825	0.21	£10,253	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C8	Restrictions on use of crane/cherry picker/mobile access.	Time, Cost	Health Board	4	2	8		Construction	Hold meeting to discuss and determine mitigation measures where necessary. Hold review meetings when project requirements/Hospital restrictions etc change so that mitigation measures can be updated.	Health Board/SCP	Ongoing		£48,825	0.28	£13,671	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C9	Restrictions to movement of materials into and out of the work areas - Aborted visits to site; delays to works.	Time	Health Board	2	3	6		Construction	Ongoing SCP coordination informing HB of plans in a timely manner during construction.	SCP	Ongoing		£97,650	0.21	£20,507	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C10	Long lead in items.	Time	Health Board	3	4	12		Construction	Early engagement of the Supply Chain, for example fire dampers/doors.	SCP	Ongoing		£48,825	0.42	£20,507	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C11	Non availability of labour and associated costs - Other projects or events reduce the availability of some resources.	Time, Cost, Quality	Health Board	3	5	15		Programme	Liaise with suppliers at earliest opportunity and manage supply chain to agreed/approved programme.	SCP	Ongoing		£97,650	0.53	£51,266	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C12	Working from height.	H&S	Health Board	2	4	8		Construction	SCP Safe System of Works.	SCP	Ongoing		£48,825	0.28	£13,671	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C13	Working in confined spaces	H&S	Health Board	2	4	8		Construction	SCP Safe System of Works.	SCP	Ongoing		£48,825	0.28	£13,671	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C14	Contractors inadequate expertise.	Time, Cost, Quality	Health Board	2	3	6		Construction	Follow project brief and liaise with appointed design team for technical guidance. Ongoing communication and coordination with key HB and NWSSP stakeholders.	SCP	Ongoing		£48,825	0.21	£10,253	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C15	Hospital can't provide access for TA team/contractors when required.	Time, Cost	Health Board	3	3	9		Construction	Advance notice of any requirements for site access. Weekly Access coordination sessions with HB and SCP.	Health Board	Ongoing		£48,825	0.32	£15,380	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C16	Dampers to ductwork - Solution requires extensive fabric or other services removal.	Time, Cost, Quality	Health Board	3	4	12		Construction	Upon finding conditions differing from BJC information during the construction stage, SCP to notify client team and engage with design team to develop an achievable/appropriate solution.	SCP	Ongoing		£97,650	0.42	£41,013	Based on a 2 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.

Nr	Risk Description	Risk Consequence: 1. Time 2. Cost 3. Quality 4. Operational	Risk Owner	Probability	Impact	Score	Risk Allocation	Category	Management Actions	Action Owner	Review Date	Comments	Cost if it happens (£)	Likelihood Factor	Expected Value (£)	Basis
C17	There is a risk that unknown hazardous materials will be discovered in the existing buildings.	Time, cost	Health Board	4	5	20		Construction	Identification of findings to client team and if necessary execute additional Asbestos etc surveys before commencement of works. Time and cost allowance to be made in BJC. HB to release existing Asbestos registers. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	Health Board/SCP	Ongoing		£48,825	0.70	£34,178	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C18	Sequence, zoning not materialising as planned in BJC and restrictions of the Works.	Time, cost	Health Board	3	3	9		Construction	Programme and sequence works to be developed during BJC and details agreed with HB stakeholders as part of works access/planning sessions during construction.	Health Board/SCP	Ongoing		£48,825	0.32	£15,380	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C19	Existing floor planks / primary structure incomplete in location of compartmentation lines.	Time, cost	Health Board	3	3	9		Construction	Surveys when access available to areas. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	Health Board/SCP	Ongoing		£48,825	0.32	£15,380	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C20	Live services impeding the Works and inability to isolate or relocate.	Time, cost	Health Board	4	4	16		Construction	Surveys when access available to areas. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration or approved derogation item as done with Phase 1 examples. Service Isolations confirmations to be provided by HB.	SCP	Ongoing		£48,825	0.56	£27,342	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C21	Smoke sealing to doors / flatness of floors.	Time, cost	Health Board	3	4	12		Construction	All doors associated with phase 2 fire strategy to be surveyed to inform requirements at construction stage. Door repair and replacement works being carried out by HB/Fire service approved FIRAS accredited contractor. Appropriate costing allowance for door works assumed replace for BJC costing. Individual floor issues locations to be identified on an as needed basis.	SCP	Ongoing		£48,825	0.42	£20,507	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C22	Existing roof structure and suitability to access the works.	Time, cost	Health Board	1	4	4		Construction	Access to any roof areas not anticipated. Assessments of loads and access suitability to be undertaken if access is required, however not expected.	SCP	Ongoing		£48,825	0.14	£6,836	Based on a 1 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
	EARLY WARNING NOTICES (SCP NOTIFIED)															
	EARLY WARNING NOTICES (PM NOTIFIED)															
														Contingency Total £:	**£1,334,192**	
														Project indicative capital value (ex vat)	**£13,392,493**	
														% of contingency	**9.96%**	

Project: Withybush General Hospital Fire Enforcement Works - Phase 2 Main Works

Project Risk Register - Version 2 - Welsh Government - 13 November 2023

Identification				Assessment					Management				Risk Quantification Calculation			
Nr	Risk Description	Risk Consequence: 1. Time 2. Cost 3. Quality 4. Operational	Risk Owner	Probability	Impact	Score	Risk Allocation	Category	Management Actions	Action Owner	Review Date	Comments	Cost if it happens (£)	Likelihood Factor	Expected Value (£)	Basis
	STRATEGIC/PLANNING/PROGRAMME RISKS															
S1	The Contractor's ability to undertake the works (or part thereof) is directly affected by a COVID-19/Pandemic type event. There is risk for disruptions, close down, delays and lock down of workfaces or the entire site due to actions taken by Government, Local Authorities, the Hospital Management, the Client and/or the Constructor that are due to the risk of a COVID - 19/Pandemic type infection spread. Business closures and furloughed staff restricting supply of materials and services, social distancing measures, reduced workforce due to illness, compliance with he Construction Leadership Council's Site Operating Procedures.	Time, Cost, Operational	Health Board	3	5	15		Programme	As applicable; Works on site to be constantly reviewed to ensure compliance with the Construction Leadership Council's Site Operating Procedures, as well as Health Board Management Plan and Hywel Dda are to be updated regularly on the impact to programme and costs on the project; Contractor to provide a COVID-19/Pandemic Management Plan; Contractor to provide a financial/timeline (if any) impact assessment for each COVID-19 Management Plan, which needs to include mitigating actions; Any financial consequences for the Authority must exclude any profit element and be prepared on an open book and transparent basis; Contractor to seek approvals in a timely manner and applications deemed late will be dismissed.	Health Board	Ongoing		£195,300	0.30	£58,590	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S2	Nature of works resulted in contract choice NEC Option E to encourage contractor tendering, as a result this presents challenges relative to cost and programme control.	Cost	Health Board	3	5	15		Strategic	Apply lessons learnt from Phase 1 including regular monitoring of site records. Additional allowances in cost estimate/budget. Larger than typical project risk contingency, including allowance held by WG. HDUHB to continue to provide additional site supervision to monitor activity on site.	Health Board/SCP	Ongoing		£191,388	0.60	£114,833	Assume cost if it happens 2.0% of Works Cost
S3	Scope of works not fully established/Incomplete surveys during BJC stage (e.g. vertical compartmentation) to inform the design, programme and cost due to access to only a sample of locations across hospital.	Time, Cost, Quality	Health Board	4	5	20		Strategic	Base design on agreed scenarios and assumptions from survey output. For example using findings from ward surveys taking worst case scenario for number of penetrations etc and applying that across other areas. Suitable allowances to be agreed with the SCP within cost plan and project risk contingency in line with assumptions regarding out of hours works or phased works or decanted phasing of works.	Health Board/SCP	Ongoing		£390,600	0.40	£156,240	Based on a 8 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S4	Risk regarding delivering the BJC and works within the MWWFRS timescales and this risk is associated with further enforcement action - Various causes of delay in a live hospital resulting in delay of delivery of works.	Time, Cost	Health Board	3	4	12		Programme	HB ongoing and open dialogue with MWWFRS regarding progress and programme. Ensure programme is actively monitored and request for extension justified and explained.	Health Board	Ongoing		£34,000	0.48	£16,320	Based on a 4 week design delay. £8,500 a week for SCP and direct fees.
S5	The extent of fire strategy and fire stopping compliance works in relation to fire service improvement notices are underestimated.	Time, cost	Health Board	3	4	12		Programme	Fire strategy developed by the HB in collaboration with the SCP and their design team and endorsement sought from MWWFRS and then instructed by the HB for the preferred option.	Health Board	Ongoing		£195,300	0.24	£46,872	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S6	Hospital activities impact on proposed phasing. Hospital unable to release work areas in accordance with the programme due to clinical needs of patients. Anticipated decant strategy/decant ward does not happen as expected.	Time, cost	Health Board	4	5	20		Strategic	Early engagement with the Hospital and Management Teams to discuss requirements and expectations as well as define phasing strategy. Ongoing coordination between project team and HB during construction phase. P2 works planned on basis of internal decant ward. External decant ward completion anticipated end of 2023. Non ward areas works to planned per brief information i.e. phased within areas or out of hours.	Health Board/SCP	Ongoing		£732,375	0.80	£585,900	Based on a 15 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S7	Impact of volatile market/inflation on labour, plant and materials.	Time, Cost	Health Board	3	5	15		Programme / Financial	Ongoing monitoring of market costs.	SCP	Ongoing		£191,388	0.60	£114,833	Assume cost if it happens 2.0% of Works Cost
S8	Risk that sign off will not be received in time from project Stakeholders, TA's or Technical Services.	Time	Health Board	2	3	6		Programme	JW/CT to direct stakeholders re sign off of documents in a timely manor.	Health Board	Ongoing		£68,000	0.24	£16,320	Based on a 8 week design delay. £8,500 a week for SCP and direct fees.
S9	There is a risk that elements of the existing infrastructure outside of project scope impacts on the project works requires remedial work - eg fire alarms, duct dampers.	Time, Cost	Health Board	3	3	9		Strategic	SCP notifies HB to coordinate internal estates resource accordingly to implement infrastructure works if required to facilitate fire upgrade works. SCP to develop design in design proposals period if/when scenarios arise and identified through contract management procedures.	SCP	Ongoing		£195,300	0.36	£70,308	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S10	There is a risk that the project will be impacted by delays in governance/approvals process e.g. BJC etc.	Time	Health Board	3	3	9		Strategic	HB to liaise with Boards, NWSSP and WG to mitigate delay risk.	Health Board	Ongoing		£68,000	0.36	£24,480	Based on a 8 week design delay. £8,500 a week for SCP and direct fees.
S11	Changes to Client Team key personnel - A key person from either team leaves and new working practices and relationships need to be established.	Time, Quality, Operational	Health Board	3	2	6		Strategic	Communication with all stakeholders regularly throughout the project.	Health Board	Ongoing		£51,000	0.24	£12,240	Based on a 6 week design delay. £8,500 a week for SCP and direct fees.
S12	Changes to SCP key personnel - A key person from either team leaves and new working practices and relationships need to be established.	Time, Quality, Operational	Health Board	4	3	12		Strategic	Communication with all stakeholders regularly throughout the project.	SCP	Ongoing		£136,000	0.48	£65,280	Based on a 16 week design delay. £8,500 a week for SCP and direct fees.
S13	Other hospital works concurrent with and disrupting our works.	Time, cost	Health Board	4	5	20		Strategic	Early engagement with the Hospital to determine. Internal HB communication regarding impact of potential other hospital projects. HB to provide ongoing updates as elements are known. Example issue of works programmes provided to SCP.	Health Board	Ongoing		£195,300	0.40	£78,120	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S14	Robust programme set for the main construction phase with allowances/provisions for access challenges agreed with Health Board and its team.	Time, Quality, Operational	Health Board	3	4	12		Programme	Review with appointed Designed for Life: Building for Wales Supply Chain Partner (SCP) regularly as design develops. Lessons learnt from Phase 1. Programme allowance to be made for decant/reoccupation time period by HB of areas. Consideration made for OOH working, phased working approach, decant of wards.	Health Board/SCP	Ongoing		£195,300	0.24	£46,872	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S15	Public engagement plans / processes are delayed / poorly coordinated.	Strategic	Health Board	2	3	6		Strategic	Public engagement info published by HB periodically and as needed.	Health Board	Ongoing		£195,300	0.24	£46,872	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S16	Staff Engagement plans / processes are delayed / poorly coordinated.	Strategic	Health Board	2	3	6		Strategic	Early and ongoing engagement with stakeholders/staff members according to areas of work.	Health Board	Ongoing		£195,300	0.18	£35,154	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.

Nr	Risk Description	Risk Consequence: 1. Time 2. Cost 3. Quality 4. Operational	Risk Owner	Probability	Impact	Score	Risk Allocation	Category	Management Actions	Action Owner	Review Date	Comments	Cost if it happens (£)	Likelihood Factor	Expected Value (£)	Basis
S17	HB emergency events disrupting / suspending / ceasing the works.	Time, Cost, Quality	Health Board	2	5	10		Programme / Financial	To be managed on an as needed basis according to event with alternative work areas for SCP to be implemented. HB to seek and issue documentation outlining emergency event information. Instruction issued by the HB as to action to be undertaken according to event type.	Health Board	Ongoing		£195,300	0.30	£58,590	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S18	Change of MWWFRS Fire Officer and potential additional requirements from replacement. Kris Steele currently in place.	Time, Cost, Quality	Health Board	3	5	15		Programme / Financial	Ongoing liaison/communication.	Health Board	Ongoing		£292,950	0.45	£131,828	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S19	MWWFRS removal of fire notice at completion of works.	Time, Cost	Health Board	3	5	15		Strategic	Early and ongoing engagement with parties - eg MWWFRS reviewing the works in accordance with endorsement. Appointed Supervisor reviewing and signing off the works in accordance with the fire strategy.	Health Board/SCP	Ongoing		£195,300	0.45	£87,885	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
S20	Requirement for over boarding to achieve fire rating to compartments.	Time, Cost	Health Board	3	5	15		Programme / Financial	Consideration of cost and programme to made in BJC allowances. Reduced phase 2 scope limits locations of 60 minute compartments.	Health Board/SCP	Ongoing		£390,600	0.38	£146,475	Based on a 8 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
	FINANCIAL RISKS															
F1	Capital costs underestimated.	Cost, time	Health Board	4	5	20		Financial	Review as part of BJC development, including surveys, design, programming all influencing cost. Supported by robust project risk contingency fund similar to Phase 1 to be agreed with HB.	Health Board	Ongoing		£47,847	0.50	£23,924	Assume cost if it happens 0.50% of Works Cost
F2	Risk that the main contractor could fail.	Time, cost	Health Board	1	3	3		Financial	Welsh Government financially stable SCP.	Health Board	Ongoing		£19,139	0.08	£1,435	Assume cost if it happens 0.20% of Works Cost
F3	Risk of other subcontractor failure.	Time, cost	Health Board	3	5	15		Financial	SCP to ensure financial stability of subcontractors as part of tendering process.	SCP	Ongoing		£19,139	0.38	£7,177	Assume cost if it happens 0.20% of Works Cost
F4	Bankruptcy of suppliers.	Time, cost	Health Board	3	5	15		Financial	SCP to ensure financial stability of suppliers as part of tendering process.	Health Board/SCP	Ongoing		£19,139	0.38	£7,177	Assume cost if it happens 0.20% of Works Cost
F5	There is the risk that the rate for VAT will change again.	Cost	Health Board	1	3	3		Financial	Government policy to be monitored.	Health Board	Ongoing		£19,139	0.08	£1,435	Assume cost if it happens 0.20% of Works Cost
F6	Significant changes in inflation of key materials or shortages	Time, cost, quality	Health Board	3	3	9		Financial	Contractor to procure the materials in a timely manner. Option E so HB take cost risk.	Health Board/SCP	Ongoing		£19,139	0.23	£4,306	Assume cost if it happens 0.20% of Works Cost
F7	Increased costs due to unknown works.	Time, cost, quality	Health Board	4	5	20		Financial	Contractor to procure the materials in a timely manner. Option E so HB take cost risk.	Health Board/SCP	Ongoing		£19,139	0.50	£9,569	Assume cost if it happens 0.20% of Works Cost
F8	Increased costs due to Statutory changes during the works.	Time, cost, quality	Health Board	3	4	12		Financial	Monitor statutory changes during the works.	Health Board/SCP	Ongoing		£19,139	0.30	£5,742	Assume cost if it happens 0.20% of Works Cost
F9	Additional non works costs incurred for unforeseen circumstances; i.e. additional decant requirements, maintenance issues etc.	Time, cost	Health Board	3	5	15		Financial	Non works allowances to be included within the BJC. CA to liaise with HB/SCP.	Health Board	Ongoing		£19,139	0.38	£7,177	Assume cost if it happens 0.20% of Works Cost
	DESIGN RISKS at BJC or Construction Stage															
D1	MWWFRS/HB Fire Officer Requirements - Unforeseen items required to meet the fire officer's requirements.	Time, Cost	Health Board	2	5	10		Design	Defined Fire Strategy produced for endorsement by MWWFRS. HB will engage with the NWSSP Fire Officers and MWWFRS at an early stage so that the requirements can be agreed and incorporated in a timely manner, Fire Strategy approval etc.	Health Board/SCP	Ongoing		£390,600	0.35	£136,710	Based on a 8 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D2	Scope of works changing arising from Hospital request, third party requirements (e.g. fire officer/building control), general briefing changes.	Time, cost	Health Board	2	4	8		Design	Ongoing management by HB client team.	Health Board	Ongoing		£9,569	0.32	£3,062	Assume cost if it happens 0.10% of Works Cost
D3	Risk that there will be changes in Building Regs, general statutory changes and changes to Health Board Standards after design proposals.	Cost, time	Health Board	2	3	6		Design	Ensure all changes prior to tender are identified. Additional changes, if any, to be managed as part of contract admin.	Health Board	Ongoing		£9,569	0.24	£2,297	Assume cost if it happens 0.10% of Works Cost
D4	Existing non project specific survey information is inaccurate or incomplete.	Time, Cost	Health Board	4	3	12		Design	SCP to check information as part of the design process and advise/request additional information from HB as appropriate.	Health Board/SCP	Ongoing		£781,200	0.24	£187,488	Based on a 16 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D5	Existing structural defects not apparent at time of submitting design proposals (i.e. after surveys completed)	Time, cost	Health Board	3	3	9		Design	SCP to notify any findings to HB. Works to be captured early/as soon as they become apparent, with contract administration process.	Health Board/SCP	Ongoing		£191,388	0.23	£43,062	Assume cost if it happens 2.00% of Works Cost
D6	Design / scope is not compliant with potential changes to Hospital Fire Strategy & Evacuation strategy.	Time, Cost, Quality, Operational	Health Board	2	5	10		Design	Fire strategy for phase 2 developed as part of the BJC and approved by HB/NWSSP fire leads and endorsed by MWWFRS.	Health Board	Ongoing		£191,388	0.25	£47,847	Assume cost if it happens 2.00% of Works Cost
D7	Infection control sign off of details is delayed or not acceptable.	Time, Operational	Health Board	2	3	6		Design	Include as key milestones on programme to manage expectations. Meetings to be arranged with key stakeholders as necessary. i.e infection control.	Health Board/SCP	Ongoing		£390,600	0.15	£58,590	Based on a 8 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D8	Compliance with HTMs / HBNs.	Time, Cost, Quality	Health Board	3	3	9		Design	Review designs/derogation schedule to be SCP developed and approved by HB.	Health Board/SCP	Ongoing		£390,600	0.32	£123,039	Based on a 8 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D9	Consequential improvements requiring building control approval.	Time, Cost, Quality	Health Board	2	3	6		Design	To be managed through contract administration process as required. Consequential improvements as a result of fire upgrade works no expected. Review designs/derogation schedule to be approved.	Health Board	Ongoing		£71,771	0.15	£10,766	Assume cost if it happens 0.75% of Works Cost
D10	Existing partitions/walls in poor/dangerous structural condition or not meeting fire and smoke resistance requirements.	Time, Cost, Quality	Health Board	3	4	12		Design	If identified carry out survey and identify structural deficiencies and remedial works. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	SCP	Ongoing		£71,771	0.30	£21,531	Assume cost if it happens 0.75% of Works Cost
D11	Existing wall construction not as fire tested ie 2 layers 9.5mm plasterboard	Time, Cost, Quality	Health Board	3	4	12		Design	If identified carry out survey and identify structural deficiencies and remedial works. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	SCP	Ongoing		£71,771	0.30	£21,531	Assume cost if it happens 0.75% of Works Cost
D12	Existing door sets not meeting requirements.	Time, Cost, Quality	Health Board	3	4	12		Design	All doors associated with phase 2 fire strategy to be surveyed to inform requirements at construction stage. Door repair and replacement works being carried out by HB/Fire service approved FIRAS accredited contractor. Appropriate costing allowance for door works assumed replace for BJC costing.	SCP	Ongoing		£95,694	0.30	£28,708	Assume cost if it happens 1.00% of Works Cost
D13	Aesthetic outcomes of the Works - increase decorations etc	Time, Cost, Quality	Health Board	2	3	6		Design	Stakeholder engagement - manage expectations e.g if carrying out works within room, 1 wall will be decorated and existing 3 will have a different finish.	Health Board/SCP	Ongoing		£71,771	0.15	£10,766	Assume cost if it happens 0.75% of Works Cost

Nr	Risk Description	Risk Consequence: 1. Time 2. Cost 3. Quality 4. Operational	Risk Owner	Probability	Impact	Score	Risk Allocation	Category	Management Actions	Action Owner	Review Date	Comments	Cost if it happens (£)	Likelihood Factor	Expected Value (£)	Basis
D14	Certification of existing glazed screens / doors / windows	Time, Cost, Quality	Health Board	3	4	12		Design	Carry out survey and identify deficiencies/certification and remedial works as part of construction stage to confirm if replacement required.	Health Board/SCP	Ongoing		£71,771	0.30	£21,531	Assume cost if it happens 0.75% of Works Cost
D15	Completeness, adequacy and condition of the existing M&E record information and requirement for services diversions.	Time, Cost, Quality	Health Board	3	4	12		Design	Establish existing condition of services for diversions / modification of M&E if required with variance from BJC reported to project team. Surveys to establish flow rates 'before and after' service diversion to confirm reduction. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	SCP	Ongoing		£781,200	0.48	£374,976	Based on a 16 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D16	Agree scope and performance for the installation of new fire dampers (FSD/FD)	Time, Cost, Quality	Health Board	1	4	4		Design	Briefing information issued via PMI as part of Phase 2 confirming damper requirements and/or approved design.	Health Board	Ongoing		£195,300	0.22	£42,966	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
D17	Additional site attendance/design management from design team over anticipated input.	Cost, time	Health Board	3	3	9		Design	Allowance made in budgets, however, potential for excessive requirements - allow in risk.	Health Board	Ongoing		£71,771	0.36	£25,837	Assume cost if it happens 0.75% of Works Cost
D18	Certification of existing fire stopping works.	Time, Cost, Quality	Health Board	3	4	12		Design	SCP to identify any existing as built fire stopping to client team on an as found basis for fire stopping replacement or derogation to be agreed/confirmed by MWWFRS.	Health Board/SCP	Ongoing		£71,771	0.48	£34,450	Assume cost if it happens 0.75% of Works Cost
D19	Existing fire alarm system sufficiency or extension requirements.	Time, Cost, Quality	Health Board	3	3	9		Design	Design team/SCP to identify any findings of insufficiency of existing fire alarm associated with scope being completed as part of Phase 2 and managed on an as needed basis through contract administration.	Health Board/SCP	Ongoing		£71,771	0.36	£25,837	Assume cost if it happens 0.75% of Works Cost
D20	Compatibility of installed & existing equipment/systems etc.	Time, Cost, Quality	Health Board	3	3	9		Design	Any findings to be identified by SCP and engineered judgement to be made for each scenario.	Health Board	Ongoing		£71,771	0.36	£25,837	Assume cost if it happens 0.75% of Works Cost
	SITE & CONSTRUCTION RISKS															
C1	Control of noise - noise levels during construction not acceptable to hospital causing works to stop.	Time, cost	Health Board	2	4	8		Construction	SCP Safe System of Work in place. Hospital to advise on a specific times/periods when specific restriction apply during early meetings. Ongoing communication with Estates lead and clinical lead on	Health Board/SCP	Ongoing		£195,300	0.28	£54,684	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C2	Control of dust - both internally and externally - not managed appropriately causing works to stop.	Time, Cost, Operational	Health Board	2	4	8		Construction	SCP Safe System of Work in place. e.g extraction, wiping down, vacuum. Ongoing Communication with Estates lead and clinical lead on works stopping etc. Cutting station locations to be agreed with HB.	SCP	Ongoing		£781,200	0.32	£249,984	Based on a 16 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C3	Disruption to existing hospital services during construction.	Time, Cost, Operational	Health Board	3	5	15		Construction	Liaise with Hospital regularly throughout the project. Contractor strategy to be developed as part of BJC with programme reflecting working methodology. Ongoing Communication with Estates lead and clinical lead on planned works - weekly coordination/lookahead. SCP Safe System of Work in place and agreed with stakeholders.	SCP	Ongoing		£195,300	0.53	£102,533	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C4	Ward disruption to works - Events happening on wards results in contractors having to stop works.	Time, cost	Health Board	1	4	4		Programme	Hospital wards/wings to be shut down and decanted during construction works.	Health Board	Ongoing		£195,300	0.14	£27,342	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C5	There is a risk that the weather will impact on site progress.	Time, Cost, Quality	Health Board	1	3	3		Construction	SCP to ensure effective mitigation measures in place including protection. Majority of works internal.	SCP	Ongoing		£195,300	0.11	£20,507	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C6	Discovery of vermin - Specialist removal required; delay to works.	Time	Health Board	2	5	10		Construction	Hywel Dda to commission surveys as needed. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	Health Board/SCP	Ongoing		£195,300	0.35	£68,355	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C7	Delayed delivery times - Delay or disruption of the Works. Re-sequencing of Works or out of hours works required.	Time	Health Board	3	2	6		Construction	Contractor strategy to be developed to deal with such circumstances and SCP ongoing coordination with HB.	Health Board/SCP	Ongoing		£195,300	0.21	£41,013	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C8	Restrictions on use of crane/cherry picker/mobile access.	Time, Cost	Health Board	4	2	8		Construction	Hold meeting to discuss and determine mitigation measures where necessary. Hold review meetings when project requirements/Hospital restrictions etc change so that mitigation measures can be updated.	Health Board/SCP	Ongoing		£195,300	0.28	£54,684	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C9	Restrictions to movement of materials into and out of the work areas - Aborted visits to site; delays to works.	Time	Health Board	2	3	6		Construction	Ongoing SCP coordination informing HB of plans in a timely manner during construction.	SCP	Ongoing		£390,600	0.21	£82,026	Based on a 8 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C10	Long lead in items.	Time	Health Board	3	4	12		Construction	Early engagement of the Supply Chain, for example fire dampers/doors.	SCP	Ongoing		£195,300	0.42	£82,026	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C11	Non availability of labour and associated costs - Other projects or events reduce the availability of some resources.	Time, Cost, Quality	Health Board	3	5	15		Programme	Liaise with suppliers at earliest opportunity and manage supply chain to agreed/approved programme.	SCP	Ongoing		£390,600	0.53	£205,065	Based on a 8 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C12	Working from height.	H&S	Health Board	2	4	8		Construction	SCP Safe System of Works.	SCP	Ongoing		£195,300	0.28	£54,684	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C13	Working in confined spaces	H&S	Health Board	2	4	8		Construction	SCP Safe System of Works.	SCP	Ongoing		£195,300	0.28	£54,684	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C14	Contractors inadequate expertise.	Time, Cost, Quality	Health Board	2	3	6		Construction	Follow project brief and liaise with appointed design team for technical guidance. Ongoing communication and coordination with key HB and NWSSP stakeholders.	SCP	Ongoing		£195,300	0.21	£41,013	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C15	Hospital can't provide access for TA team/contractors when required.	Time, Cost	Health Board	3	3	9		Construction	Advance notice of any requirements for site access. Weekly Access coordination sessions with HB and SCP.	Health Board	Ongoing		£195,300	0.32	£61,520	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C16	Dampers to ductwork - Solution requires extensive fabric or other services removal.	Time, Cost, Quality	Health Board	3	4	12		Construction	Upon finding conditions differing from BJC information during the construction stage, SCP to notify client team and engage with design team to develop an achievable/appropriate solution.	SCP	Ongoing		£390,600	0.48	£187,488	Based on a 8 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.

Nr	Risk Description	Risk Consequence: 1. Time 2. Cost 3. Quality 4. Operational	Risk Owner	Probability	Impact	Score	Risk Allocation	Category	Management Actions	Action Owner	Review Date	Comments	Cost if it happens (£)	Likelihood Factor	Expected Value (£)	Basis
C17	There is a risk that unknown hazardous materials will be discovered in the existing buildings.	Time, cost	Health Board	4	5	20		Construction	Identification of findings to client team and if necessary execute additional Asbestos etc surveys before commencement of works. Time and cost allowance to be made in BJC. HB to release existing Asbestos registers. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	Health Board/SCP	Ongoing		£195,300	0.70	£136,710	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C18	Sequence, zoning not materialising as planned in BJC and restrictions of the Works.	Time, cost	Health Board	3	3	9		Construction	Programme and sequence works to be developed during BJC and details agreed with HB stakeholders as part of works access/planning sessions during construction.	Health Board/SCP	Ongoing		£195,300	0.32	£61,520	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C19	Existing floor planks / primary structure incomplete in location of compartmentation lines.	Time, cost	Health Board	3	3	9		Construction	Surveys when access available to areas. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration.	Health Board/SCP	Ongoing		£195,300	0.32	£61,520	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C20	Live services impeding the Works and inability to isolate or relocate.	Time, cost	Health Board	4	4	16		Construction	Surveys when access available to areas. Unknown scenarios, i.e. area which cant be accessed to survey in advance, to be managed through contract administration or approved derogation item as done with Phase 1 examples. Service Isolations confirmations to be provided by HB.	SCP	Ongoing		£195,300	0.56	£109,368	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C21	Smoke sealing to doors / flatness of floors.	Time, cost	Health Board	3	4	12		Construction	All doors associated with phase 2 fire strategy to be surveyed to inform requirements at construction stage. Door repair and replacement works being carried out by HB/Fire service approved FIRAS accredited contractor. Appropriate costing allowance for door works assumed replace for BJC costing. Individual floor issues locations to be identified on an as needed basis.	SCP	Ongoing		£195,300	0.42	£82,026	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of £3,825 a week.
C22	Existing roof structure and suitability to access the works.	Time, cost	Health Board	1	4	4		Construction	Access to any roof areas not anticipated. Assessments of loads and access suitability to be undertaken if access is required, however not expected.	SCP	Ongoing		£195,300	0.14	£27,342	Based on a 4 week construction delay of £45,000 a week for contractor and supply chain prelims and additional direct fees of
	EARLY WARNING NOTICES (SCP NOTIFIED)															
	EARLY WARNING NOTICES (PM NOTIFIED)															
														Contingency Total £:	**£5,094,878**	
														Project indicative capital value (ex vat)	**£14,944,000**	
														% of contingency	**34.09%**	

Appendix Six – Risk Potential Assessment

Llywodraeth Cymru
Welsh Government

Welsh Government Integrated Assurance

Risk Potential Assessment Form (RPA)

(IAH-RPA)

Version 2.0 – March 2019

March 2019

INTRODUCTION

About OGC Gateway™:

Programmes and projects provide an important vehicle for the efficient and timely delivery of government aims. Good and effective management and control of programmes and projects is therefore essential to the successful delivery of government objectives. The Welsh Government Assurance Process (consistent with the OGC Gateway) is the responsibility of the Integrated Assurance Hub (IAH) and authorised to deliver assurance under accredited licence from the Infrastructure and Projects Authority (IPA), which is part of the UK's Cabinet Office. This process is designed to provide independent guidance to Senior Responsible Owners (SROs), programme and project teams and to the departments who commission their work, on how best to ensure that their programmes and projects are successful

The OGC Gateway Process examines programmes and projects at 'key decision points' in their lifecycle, and looks ahead to provide assurance that they can progress successfully to the next stage. The OGC Gateway Process is regarded as best practice in central civil government throughout the UK, and applicable to a wide range of programmes and projects, including:

- policy development and implementation
- organisational change and other change initiatives
- acquisition programmes and projects
- property/construction developments
- IT-enabled business change
- procurements using or establishing framework arrangements.

Value of the OGC Gateway Process

OGC Gateway Reviews deliver a 'peer review', in which independent practitioners from outside the programme/project use their experience and expertise to examine the progress and likelihood of successful delivery of the programme or project. They are used to provide a valuable additional perspective on the issues facing the programme/project team, an external challenge to the robustness of plans and processes, and support to SROs in the discharge of their responsibilities to achieve their business aims, by helping to ensure:

- the best available skills and experience are deployed on the programme/project
- all the stakeholders covered by the programme/project fully understand the programme/project status and the issues involved
- there is assurance that the programme/project can progress to the next stage of development or implementation and is well managed in order to provide value for money on a whole life basis
- achievement of more realistic time and cost targets for programmes and projects
- improvement of knowledge and skills among government staff through participation in Reviews
- provision of advice and guidance to programme and project teams by fellow practitioners.

The Welsh Government's Risk Potential Assessment Form (IAH-RPA) is designed to provide a standard set of high-level criteria for assessing the **risk potential** of a programme/project in a strategic context.

The RPA enables a conversation to be had about the risks and responsibilities that the SRO has for delivery and that the programme/project in respect of visibility, reporting and assurance in a wider portfolio management context. The RPA can also help the programme/project to identify areas where specific skills sets, commensurate with the level of complexity, may be required.

The OGC Gateway Process offers an independent assurance for all potential high and medium risk programmes/projects within Welsh Government and Wider Welsh public sector. In order to determine the applicability of an OGC Gateway Review, the RPA **must** be completed by the SRO for the programme/project.

The RPA form is in five sections :

- Section 1 - (Programme/Project General Information) – gathers some basic information about the programme/project

- Section 2 - gathers a brief synopsis of the programme/project, its key objectives and the stage of the programme/project at the current time. This will provide context for the assessment by the IAH.

- Section 3 - is designed to build on information provided in Section 2, by capturing a standard set of high-level criteria for further assessing the **risk potential** of a proposed programme/project. This section is also used to determine if an Assessment Meeting with the SRO is appropriate to discuss whether an OGC Gateway Assurance might be of value to the programme/project. At the end of each question within this section the SRO is required to make a self assessment of the level of risk the programme/project carries. Further information and an explanatory note is required to support the self assessment.

- Section 4 – The SRO is required to provide an overall self assessment of the level of risk the programme/project is at.

- Section 5 – SRO sign off for the RPA form.

Completed forms must be sent directly for assessment to the Integrated Assurance Hub (IAH) Mailbox Assurance@gov.wales

SECTION 1 :	Programme/Project General Information
1. Is this a Portfolio/Programme or Project?	Project
2. Programme/Project name	Hywel Dda University Health Board, Phase 2 Withybush General Hospital Fire Precaution Upgrade Scheme.
3. Your Division/Department	Facilities, Estates and Capital Management
4. Programme/Project Type	Legislation Fire Compliance
5. SRO Contact Details (to include telephone number, mobile number and e-mail address)	**Andrew Carruthers** **Director of Operations** **A.Carruthers@wales.nhs.uk** **Tel 01267 239699**
6. Programme/Project Manager details (to include telephone number, mobile number and e-mail address)	**Rob Elliott** **Director of Estates, Facilities & Capital Management** **Rob.Elliott@wales.nhs.uk** **Tel 01267 227313** **Mobile 07774 776824**
7. Primary contact point for administration of the OGC Gateway™ Review (to include telephone number, mobile number and e-mail address)	**Jason Wood** **Major Capital Development Manager** **Jason.Wood@wales.nhs.uk** **Mobile 07536 009905**
8. Finance Officer details: Review (to include telephone number, mobile number and e-mail address) *(N.B. review costs will initially be met by the Integrated Assurance Hub but will be recouped via journal at the end of the review)*	**Sarah Welsby** **Business Partner – Planning & Major Projects** **Sarah.Welsby@wales.nhs.uk** **Tel 01267 283026**
9. Date of previous Gateway Review if applicable – *please include previous Gateway Product & IAH unique number).*	Click here to enter a date. Choose an item. AH/XX/XX

SECTION 2 : PROGRAMME / PROJECT DETAILS

Please provide a brief synopsis of the programme/project, the key objectives and at which stage the programme/project is currently at:

Following visits from the Mid and West Wales Fire and Rescue Service (MWWFRS) to Withybush Hospital and associated sites in August and December 2019, Hywel Dda University Health Board (HDUHB) received enforcement notifications and letters of fire safety matters in relation to compliance with fire safety regulations.

A Programme Business Case was submitted to Welsh Government in March 2020 detailing a need for capital investment to enable the Health Board to achieve compliance within the stipulated timescales. The delivery programme for the works to address the contents of the MWWFRS notices has been developed and are split into several phases.

General Housing Keeping and Management Actions. These works were funded from within the HB and issues as highlighted by MWWFRS have been addressed.

Advanced Works Package. These works included upgrading of fire doors to main fire escape staircases and bedroom doors at St Caradog's Mental Health Unit. These works were funded by WG and are now complete.

Phase 1. These works with undertake fire improvement works to the main compartment and sub compartment lines and risks rooms on the main stem corridors and escape routes in the main hospital building. These works will include fire stopping, replacement and repair of fire doors, replacement of fire dampers and associated works. Phase 1 will also include remaining fire upgrading works at Bro Cerwyn, St Brynachs, St Caradogs and St Nons Mental Health Facilities, plus residential accommodation blocks, Sealyham Office Block and main plant areas. These works are currently programmed to last circa 60 weeks and are the subject of this Phase 1 BJC for which the HDUHB is seeking capital funding support from WG.

Phase 2 works will address all fire related matters as identified within departmental and ward areas and will be the subject of a further BJC for which HDUHB will be seeking capital funding support from WG. It is envisaged that Phase 2 will follow on from the completion of the phase 1 programme.

The phased approach to the delivery of the works has been agreed in consultation with MWWFRS and WG and is based on providing a continual programme of fire improvement and upgrading works with the final goal of removal of all enforcement notifications and letters of fire safety by MWWFRS.

SECTION 3 : GUIDANCE

Section 3 of the RPA assesses the potential risk for the programmes/project. The overall RPA assessment process at this point is an **indicator** of risk potential and is not an exhaustive risk analysis model. However, it can be the starting point for a more exhaustive risk assessment of a programme/project.

This section is made up of a series of five key short assessments, which will determine the basic and initial risk rating of the programme/project. These assessments are made using the knowledge and judgement of the SRO and programme/project team and should be considered in the light of a programme/project's strategic context. Each question requires an answer using the drop down boxes, a self assessment of the level of risk and a short explanatory note of the reasoning for the self assessment mark. This will provide further detail for the IAH and an audit trail of the considerations.

After completion, the SRO should e-mail the RPA Form directly to the IAH for initial assessment. The IAH will then formally write to the SRO to notify them of the outcome.

The initial assessment will normally be used throughout the life of the OGC Gateway Review process. However, and even though the score might decline during the programme/project lifecycle, should the programme/project's risk assessment increase, the higher assessment may take precedent.

If you have further questions about the use or completion of this section, please contact the Integrated Assurance Hub on 0300 025 0149 or 0300 025 3901 or you can e-mail us on Assurance@gov.wales

SECTION 3.1 Strategic Alignment & Commitment	
3.1.1: Does the programme/project satisfy a ministerial commitment? If YES, please state who is the responsible minister(s)	No Choose an item.
3.1.2: Does the programme/project cut across ministerial portfolios	No
3.1.3: Does the programme/project satisfy a major policy commitment? If YES, Which policy?	No
3.1.4: Does the Programme/Project impact Key Organisational Objectives?	No links to strategic targets or performance indicators
3.1.5: Does the Programme/Project impact Business Change?	No change
Strategic Alignment & Commitment – Self assessed risk rating	Very Low
Further information & explanatory note: As noted previously this Phase 2 BJC is part of a multi phased approach to delivering Fire Precaution Upgrade works required at Withybush General Hospital, Haverfordwest and associated premises to satisfy letters of fire safety and enforcement notices as received from Mid & West Wales Fire & Rescue Service (MWWFRS)	

SECTION 3.2: Financial/funding impact	
3.2.1: How much is the projected budget for the programme/project? *N.B. when completing this part of the form, please take into account the whole-life costs of the programme/project (as defined by HM Treasury Green Book)*	£5M and above
3.2.2: How long is the programme/project expected to run?	Over 2 Years
3.2.3: Is funding secured and in place for the entire lifecycle of the programme/project?	No
3.2.4: Does the programme/project receive external funding?	Yes - Capital Revenue
3.2.5: How is the Programme/Project budget managed?	Budget within delegations and local control
Financial/Funding Impact – Self assessed risk rating	Medium
Further information & explanatory note:	

SECTION 3.3 Stakeholder Engagement	
3.3.1: Has the Programme/Project identified all stakeholders?	Yes - All stakeholders identified and engaged
3.3.2: How complex is stakeholder management?	many stakeholders in one organisation
3.3.3: Impact on resources	most resources in place
3.3.4: How many staff within the organisation will be affected by the programme/project?	100+
3.3.5: Impact on Public	Low impact - Minister advised
Stakeholder Engagement – Self Assessed Risk Rating	Low
Further information & explanatory note: Phase 2 Delivery will have a disruptive effect in all out patient and clinical areas of the main building including ward spaces, however works will be planned either out of hours where possible or rotated through the spare ward made possible via the new Decant ward limiting long term effects on staff and public.	

SECTION 3.4 Governance	
3.4.1: Has the programme/project undertaken a scoping exercise to ensure there is no duplication of work in any other part of the organisation?	Yes -
3.4.2: Are the Programme/Project Governance arrangements in place?	Yes as outlined in the BJC
3.4.3: Are the Programme/Projects Time & Quality Targets Achievable?	Yes subject to funding availability
3.4.4: Has the Programmes/Projects benefits been identified?	Yes working towards removal of current fire notices
3.4.5: Has the programme/project considered and implemented security standards in compliance with regulatory Acts e.g. GDPR?	Not Applicable
3.4.6: Governance – Self Assessed Risk Rating	Low
Further information & explanatory note:	

SECTION 3.5 Programme/Project Dependencies	
3.5.1: Is the Programme or Project dependant on or connected to wider initiatives?	standalone programme/project with no dependency
3.5.2: Does the programme/project depend on key components, consent or approvals which are outside the organisations direct control?	No external factors that requires consent or approval
3.5.3: Does the programme/project key objective require new IT systems and/or the need to develop interfaces with existing IT systems?	No IT dependency
3.5.4: How complex are the commissioning/procurement arrangements for the programme/project	Single supplier required from existing commissioning/procurement framework
Programme/Project Dependencies – Self Assessed Risk Rating	Low
Further information & explanatory note: Suppliers selected from the Designed For Life Building For Wales Framework. No IT dependency in terms of software systems only replacement upgrading of Hub Room enclosure infrastructure	

Section 4: Programme/Project overall self assessment risk rating
Low

Section 5: SRO ENDORSEMENT	
I am satisfied that the Risk Potential Assessment provides an accurate reflection of the programme/project at this stage of development.	
Signed A Carruthers (Senior Responsible Owner)	Date 21/02/2024
I will re-asses the programme/project if there is a significant change to the programme/project scope or budget or if significant changes emerge that may threaten successful delivery.	
Signed A Carruthers (Senior Responsible Owner)	Date 21/02/2024

Appendix Seven – Integrated Impact Assessment

HDUHB Withybush General Hospital Fire Precautions Upgrade Scheme Phase 2 – March 2024

Integrated Impact Assessment Tool	Y/N	Evidence & Further Information	Completed By	Evidence
Financial/Service Impacts				
1. Has the new proposal/service model been costed?	**N/A**	Not Applicable infrastructure upgrade		
2. Does the budget holder have the resources to pay for the new proposal/service model, otherwise how will this be supported?	**N/A**	Not Applicable infrastructure upgrade		
3. Is the new proposal/service model affordable?	**N/A**	Not Applicable infrastructure upgrade		
4. Is there an impact on pay or non pay e.g. drugs, equipment, etc?	**N**	No additional revenue implications resulting from the programme are anticipated as replacement of existing infrastructure		
5. Is this a spend to save initiative?	**N**	This is a business case for capital investment.		
6. What is the financial or efficiency payback (prudency), if any?	**N/A**	Not Applicable		
7. Are there risks if the new proposal/service model is not put into effect?	**Y**	Risks could be MWWFRS take further enforcement action against HDUHB.	Project Group	BJC
8. Are there any recognised or unintended consequences of changes on other parts of the system (i.e. impact on current service, impact of changes in secondary care provision on primary care services and capacity or vice versa, or other statutory services e.g. Local Authorities?)	**Y**	More modern infrastructure and control systems such as fire dampers with central monitoring function.	Project Group	BJC Estates Annex

9. Is there a need for negotiation/lead in times i.e. short term, medium term, long term?	**N**	No required negotiations. Welsh Government capital approval required. Lead in time for Building works mobilisation once approval for the capital is secured.		
10. Are capital requirements identified or funded?	**Y**	See BJC phase 2 for capital funding requirements and cashflow profile	Project Group	BJC/Estates Annex
11. Will capital projects need to be completed in time to support any service change proposed?	**N**			
12. Has a Project Board been identified to manage the implementation?	**Y**	As set out in BJC	Project Group	BJC
13. Is there an implementation plan with timescales to performance manage the process and risks?	**Y**	Phase 2 Delivery Programme and risk register included in BJC and associated Estates Annex based on an anticipated scope of works.	Project Group	BJC/Estates Annex
14. Is there a post project evaluation planed for the new proposal/service model?	**Y**	Post project evaluation and monitoring will be required by Welsh Government. Stages and detail to be agreed.	Project Group	BJC
15. Is the UHB clear of any other constraints which would prevent progress to implementation?	**Y**	The key constraint to the progress of this development is the availability of All Wales Capital from Welsh Government. The Project Risk Register captures current risks.	Project Group	BJC/Estates Annex
Quality/Patient Care Impacts				
16. a)Could there be a *positive* impact on patient outcome/care? b)Could there be a *negative* impact on patient outcome/care	**N** **Y**	Works will be mostly above ceiling line although maybe some minor decorative uplift such as ceiling tile replacement. Disruption to services during the delivery phase of the works although would be planned to minimize. Decanting each ward one at a time through the decant ward, to reduce ongoing disruption.	Project Team	
17. Is there are potential for inequity of provision? E.g. rurality, transport.	**N**	Not applicable infrastructure upgrade		

18. Is there any potential for inconsistency in approach?	**N**	Not Applicable infrastructure upgrade		
19. Is there are potential for postcode lottery/commissioning?	**N**	Not Applicable infrastructure upgrade		
20. Is there a need to consider exceptional circumstances?	**N**	Not Applicable infrastructure upgrade		
21. Are there clinical and other consequences of providing or delaying/denying treatment *or the scheme*(i.e. improved patient outcomes, chronic pain, physical and mental deterioration, more intensive procedures eventually required?	**N**	Not Applicable infrastructure upgrade		
22. Are there any Royal Colleges standards, etc, applicable?	**N**	Not Applicable infrastructure upgrade		
23. Can clinical engagement be evidenced in the design of the new proposal/service model?	**Y**	Even though an infrastructure upgrade the Project Team have engaged with Hospital Management Teams as part of BJC development. Further extensive engagement will be required as part of delivery of the works	Project Team	BJC/Estates Annex
Workforce Impact				
24. Has the impact on the existing staff/WTE been determined?	**N/A**	Not Applicable infrastructure upgrade		
25. Is it deliverable without the need for premium workforce?	**Y**	Service Lead to be established to interface with Project Team		
26. Is there the potential for staff disengagement if there is no clinical/'reasonable' rationale for the action?	**N**			
27. Is there potential for professional body/college/union involvement?	**N**			

28. Could there be any perceived interference with clinical freedom?	**N**			
29. Is there potential for front line staff conflict with the public?	**N**			
30. Could there be challenge from the 'industries' involved?	**N/A**	Not Applicable		
31. Is there a communication plan to inform staff of the new arrangements?	**Y**	A Communication plan is being developed to ensure Clinical Hospital Teams are aware of scheme and impact on services and environment.	Project Group/Team	
32. Has the Organisational Change Policy been followed, including engagement/consultation in accordance with guidance?	**N/A**	Not Applicable		
33. Have training requirements been identified and will this be complete in time to support the new proposal/service model?	**N/A**	Not Applicable		
Risk Impact				
32. Has a risk assessment been completed?	**Y**	Risk Register/ RPA	Project Group	BJC
33. Is there a plan to mitigate the risks identified?	**Y**	As Risk Register	Project Group	BJC
Legal Impact				
34. Has legal compliance been considered e.g. Welsh Language: is there any specific legislation or regulations that should be considered before a decision is made?	**N**	Planning Permission not required Building Regulations/MWWFRS on going	Project Team	

35. Is there a likelihood of legal challenge?	**N**			
36. Is there any existing legal guidance that could be perceived to be compromised i.e. Independent Provider Contracts, statutory guidance re: Continuing Healthcare, Welsh Government Policy etc?	**N**			
37. Is there any existing contract and/or notice periods?	**N**			
Reputational Impact				
38. Is there a likelihood of public/patient opposition?	**N**			
39. Is there a likelihood of political activity?	**N**			
40. Is there a likelihood of media interest?	**N**	Unlikely although could be some negative press once works underway resulting from disruption.	Project Group/Team	
41. Is there the potential for an adverse effect on recruitment?	**N**			
42. Is there the likelihood of an adverse effect on staff morale?	**N**	Unlikely although could be some resulting from disruption caused to deliver works.		
43. Potential for judicial review?	**N**	No service changes		

N/A Not Applicable

Appendix Eight
Integrated Assurance and Approval Plan

Integrated Assurance and Approval Plan

	Assurance to	2020				2023				2024				2025				2026			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Approval Point																					
Local Health Board/Trust																					
Strategic Outline Programme	Investment Decision Make	✓																			
Strategic Outline Case (Not Applicable)	Investment Decision Maker																				
Outline Business Case (Not Applicable)	Investment Decision Maker																				
Full Business Case (Not Applicable)	Investment Decision Maker																				
Business Justification Case (Phase 1)	Investment Decision Maker									✓											
Welsh Government																					
Project Scoping Document	Welsh Government	✓																			
Strategic Outline Programme	Welsh Government	✓																			
Strategic Outline Case	Welsh Government																				
OBC Funding application (Not Applicable)	Welsh Government																				
Outline Business Case (Not Applicable)	Welsh Government																				
Full Business Case (Not Applicable)	Welsh Government																				
Business Justification Case	Welsh Government										✓										
Independent Assurance																					
Risk Potential Assessment (RPA1)	Welsh Government										✓										
Complexity Assessment (RPA2)	Welsh Government																				
Gateway Reviews																					
0 Strategic Assessment	SRO/Welsh Government	✓																			
1 Business Justification	SRO/Welsh Government										✓										
2 Delivery Strategy	SRO/Welsh Government																				
3 Investment Decision	SRO/Welsh Government																				
4 Readiness for Service	SRO/Welsh Government																				
5 Operational Review and Benefits Realisatio	SRO/Welsh Government																				
Project Design and Construction Peer Review	SRO/Welsh Government																				
Post-Project Design and Construction Evaluat	SRO/Welsh Government																				
Functional Assurance							As part of Each BJC														
Service	SRO									✓											
Financial (Revenue and Capital)	SRO									✓											
Operational	SRO									✓											
Technical	SRO									✓											
Quality	SRO									✓											
Audit																					
Internal - Project Audit(s)	Audit Committee															✓				✓	
External - Wales Audit Office	Welsh Government																				
External - Designed for Life: Building for Wo	Welsh Government																				

SRO = Senior Responsible Owner