Adeiladu GIG i Gymru
NHS Building for Wales

DESIGN & CONSTRUCTION POST PROJECT EVALUATION

OF THE

UNIFIED BREAST CARE UNIT

AT

YSBYTY YSTRAD FAWR

May 2025

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Aneurin Bevan University Health Board

GIG CYMRU NHS WALES
Partneriaeth Cydwasanaethau Gwasanaethau Cyfleusterau
Shared Services Partnership Facilities Services

UBCU 2

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EXECUTIVE SUMMARY

Following an investment of £12.24M from Welsh Government, the new Unified Breast Care unit (UBCU) will bring together experts from across the Aneurin Bevan University Health Board area to provide a more resilient and effective breast care service to better meet the needs of the Gwent population.

To expand on the current breast care services offered in Gwent, the clinical teams from Nevill Hall and the Royal Gwent Hospitals have come together to provide outpatient care, diagnostic investigations and surgery for breast cancer in the heart of Ystrad Mynach.

The new unit has led to the introduction of a gold standard one-stop diagnostic service allowing patients to undergo investigative procedures in one visit, significantly improving efficiency and patient satisfaction.

Existing Mammogram machines have been transferred from Nevill Hall and Royal Gwent Hospitals to the new unit. A light-up art piece from Nevill Hall Hospital's Mammogram room has also been repurposed and moved to its new home in Ysbyty Ystrad Fawr, as it is still in keeping with the new unit's feel and aesthetic environment.

The unit facilitates the creation of a centre of excellence, with evidence-based services providing the best clinical outcomes. Services have been designed to provide a seamless, consolidated and holistic approach to patient care, in particular for those patients with urgent suspected cancer referral and those with confirmed cancer.

The new UBCU project is located within the grounds of the existing Ysbyty Ystrad Fawr hospital. The facility is built on columns with a carpark beneath to reflect the current hospital arrangement. There is a connection at first floor via a link corridor to the existing podium slab which connects the unit seamlessly to the main hospital.

The UBCU was subject to a standard business case approval process by Welsh Government namely Strategic Outline Case, Outline Business Case and Full Business Case.

The UBCU project is award winning after successfully being awarded Capital Project of the Year at the recent IHEEM Wales Awards 2025.

The approved budget of the UBCU was £12.24M with a construction value of £8.9M, both figures excluding Valued Added Tax. The design and construction were undertaken utilising the NHS Building for Wales framework with the following parties appointed: -

Supply Chain Partner: BAM

Supply Chain Consultants

Architects: Powell Dobson

Building Service Engineers: ARUP

Civil & Structural Engineers: ARUP

Main Supply Chain Subcontractor: Lorne Stewart

Project Manager: Gardiner & Theobald

Cost Adviser: Gleeds

NEC Supervisor: DRAC Consulting

The UBCU project was successfully opened on time and within the approved budget and to the required standard. The UBCU project also achieved: -

- a BREEAM Excellent Certification
- an AEDET score of 5.6 (maximum score of 6, target of 4).
- 100% of supply chain were paid within 30 days.
- 71% of total expenditure was spent with businesses based in Wales.
- 100% spent on SMEs based in Wales.
- 684 represents the total number of training weeks on this contract.
- 12 apprenticeships created.
- The scheme generated 2,454 tonnes of waste diverted from landfill which resulted in a saving of £39,422.

A summary of best practice and lessons learnt by all parties on this project are: -

Best Practice	**Lessons Learnt**
To provide a Centre for Excellence	
The focus of the project was to provide a model for breast care services that maximise the use of the resources that were spread across 3 separate sites within the Health Board geographic area.	Early stakeholder engagement with the right people.
The project has brought together various breast care services under one roof, creating a specialised centre that can provide more comprehensive care to patients.	In March 2025 92.5% of cancer patients were treated within 62 days compared to the WG target of 75%. Patients are expressing positive experiences of the care they receive in the breast unit.
The finishes were to a high standard and gave the patient a more calming and caring environment.	The finishes were designed to be less clinical to give the patient a more reassuring experience during their treatment.
Business Case Approval Process	
The project brief was clearly defined and included a schedule of accommodation, strategic outline case and a feasibility study.	A clearly defined brief meant there were no fundamental changes which saved a lot of time once the team were appointed.
Streamlining the preconstruction phases of OBC and FBC to maintain design momentum to reduce delay, manage risk, improve buildability and maintain programme and budget control.	For less complex projects of this size consideration should be given to adopting a BJC process where the length of the approval process can be shortened significantly.
The project was delivered through some unprecedented times including COVID and the Ukraine war which had a significant impact on construction inflation. Despite these	Avoiding indecision is key to any project's success.

challenges the project was delivered on time and within budget.	
Best Practice	**Lesson Learnt**
Collaboration & Communication	
Incorporating an estates representative within the project delivery team was a great initiative in assisting with issues such as car parking and site deliveries.	Close liaison with the estates team was key to ensuring that site activities did not affect the day to day running of the main hospital site.
New ways of working were developed during COVID such as Microsoft teams, Skype and Zoom which fostered greater collaboration between the contractor, Health Board, designers and end users.	Regular engagement helped ensure the facility was tailored to the clinical needs and operational workflows required by the end users.
During the projects lifecycle there were a number of changes in personnel although this did not have a detrimental impact on the project's delivery.	For future projects a succession planning document would be helpful in ensuring any changes in personal do not come as a shock to the team.
The NEC Supervisor appointment is key to the successful delivery of any project.	Adequate funding prior to detailed design development needs to be set aside for the NEC Supervisor's appointment.
Close alignment of the NEC contract and internal governance during change is key to the success of any project in avoiding delays to programme and payment protocols.	The Health Board operated an effective sign off procedure which kept in tandem with the timescales of the NEC contract.
Construction Methodology	
A traditional construction methodology in lieu of MMC was adopted for the new unit which was finished to a high-quality standard.	An earlier decision to drop the MMC route would have saved time on the programme.
The traditional route allowed for greater flexibility in making changes and in the choices for creating a	To make the unit as welcoming as possible and minimise the clinical impact.

caring and reassuring environment for staff and patients and their families.	
Best Practice	**Lesson Learnt**
If an MMC construction approach is to be adopted, then it must be defined within the project brief and the appropriate procurement route followed.	MMC was restrictive on this framework because it was not clear how the modular contractor would incorporate a framework subcontractor service.
Handover and Commissioning	
Provide a safe, practical and comfortable facility to WHBN and WHTM standards.	The design tools used to calculate water use need to change in line with the BREEAM requirement to save water.
The role of the NEC Supervisor is key in liaising with both the SCP and NWSPP SES.	Due to the NEC Supervisor not being in post at the start of the project witnessing and defect recording arrangements were not formalised.
Commissioning requirements to be fully aligned with the programme affording time for the NEC Supervisor to fully engage with the contractor over the processes required.	Earlier appointment of the NEC Supervisor.

The evidence shows the UBCU is a successful project; a challenging scheme delivered on time, to budget and to a high quality. The evaluation has confirmed the key objectives have been achieved; a state-of-the-art breast care unit for the people of Gwent, creating a centre of excellence with access to high quality care by creating an environment appropriate for patient sensitivity and privacy providing the very specialist services required.

This Design & Construction Post Project Evaluation has been carried out with the involvement of the whole delivery team in a proactive and a blame free culture. Thanks are extended to all involved.

DESIGN & CONSTRUCTION POST PROJECT EVALUATION METHODOLOGY

Context

The requirement for undertaking a Design and Construction Post-Project Evaluation is a constituent part of delivering the NHS Capital Programme within Wales; this was highlighted within the Welsh Government circular WHC (2018) 043: NHS Wales Infrastructure Investment Guide published October 2018. Framework Members can view this guidance on the Welsh Government website.

Consequently Design and Construction Evaluations are to be facilitated by NWSSP Specialist Estate Services and are to be undertaken during Stage 5: Operational Commissioning and Project Closure; the outputs of an evaluation should focus upon the performance of the project delivery from start of Stage 2: Outline Business Case development to Stage 5: Operational Commissioning and Project Closure (N.B. Stages as defined in the *NHS Building for Wales* process maps and Schedules of Services).

Accordingly, NWSSP Specialist Estate Services issued guidance in the form of 'Guidance *Note: Procedure for Design and Construction Post-Project Evaluation – October 2023*. Framework Members can find this guidance on-line using this hyperlink: DCPPE Guidance Note V8.docx

Why carry out a Design & Construction PPE?

Post-Project Evaluation is a fundamental tool in achieving Best Value for Money and through lessons learnt can improve future project performance and decision making by key stakeholders.

Post Project Evaluation can be an aid to:

- Improved design, organisation, implementation and strategic management of projects.
- Promote organisational learning to improve current and future performance.
- Avoid repeating costly mistakes.
- Improve decision-making and resource allocation (e.g., by adopting more effective project management arrangements).
- Improve accountability by demonstrating to internal and external parties that resources have been used efficiently and effectively; and

Demonstrate acceptable outcomes and/or management action thus making it easier to obtain extra resources to develop healthcare services.

How has this PPE been carried out?

In accordance with the 'Guidance', this evaluation has been undertaken in an impartial, objective and blame free culture, which has involved the Health Board and all other key stakeholders of the Project Delivery Team. A specially structured suite of Pro-forma & questionnaire was issued to all *(refer to Appendix A)* to evoke memoirs of issues both good and not so good that occurred during the project journey. A workshop was then held with a select number of attendees representing Client, Supervisor, Project Manager, Cost Advisor and Supply Chain Partner, to further investigate the main themes and issues noted within the questionnaires to fully understand and highlight lessons learnt. The draft report was then circulated to all respondents for review to enable input into the final edited version, for sign off by the Health Board prior to publishing.

In the interest of continuous learning and to benefit future project design, planning, development and management; this Design and Construction Post-Project Evaluation will be shared with Welsh Government, all NHS bodies, Framework Members and the Service Post Project Evaluation Team Members.

The Service Post-Project Evaluation, completed in accordance with the Benefits Realisation timeframe, will be initiated by the Health Board (normally during Stage 6: Completion). The Welsh Government Integrated Assurance Hub will provide support in developing and undertaking the Service evaluation.

PROJECT DETAILS

The Unified Breast Care Unit located at Ysbyty Ystrad Fawr (YYF) has a construction value of £8.9M and has been delivered through the NHS Building for Wales Framework Agreement. BAM were appointed as main contractor with project management by Gardiner & Theobald and cost advise by Gleeds.

Aneurin Bevan University Health Board was established in October 2009 and covers the areas of Blaenau Gwent, Caerphilly, Monmouthshire, Newport, Torfaen and South Powys. The Health Board as a whole serves a population of more than 600,000.

YYF is a community hospital in the Caerphilly County Borough in Wales situated in Ystrad Mynach between the A469 Caerphilly to Newbridge Road and the old Caerphilly Road between Ystrad Mynach and Llanbradach.

The hospital was opened in 2012 and replaced Caerphilly Miners Hospital, Ystrad Mynach Hospital, Ty Sirhowy Mental Health Unit and smaller community hospitals in the area. The hospital has a total of 204 beds and full assessment facilities. It was the first hospital in South Wales to have individual rooms for all patients.

Coincidentally the hospital was also built by BAM. Many of the site staff involved in the original build were also involved in the development of the New Unified Breast Care Unit.

The hospital also offers a host of services including outpatient appointments for a range of specialities; diagnostic services such as X-rays, MRI and CT scans; Rehabilitation and Therapy services; and the centralisation of the Health Board area's specialist and critical care services.

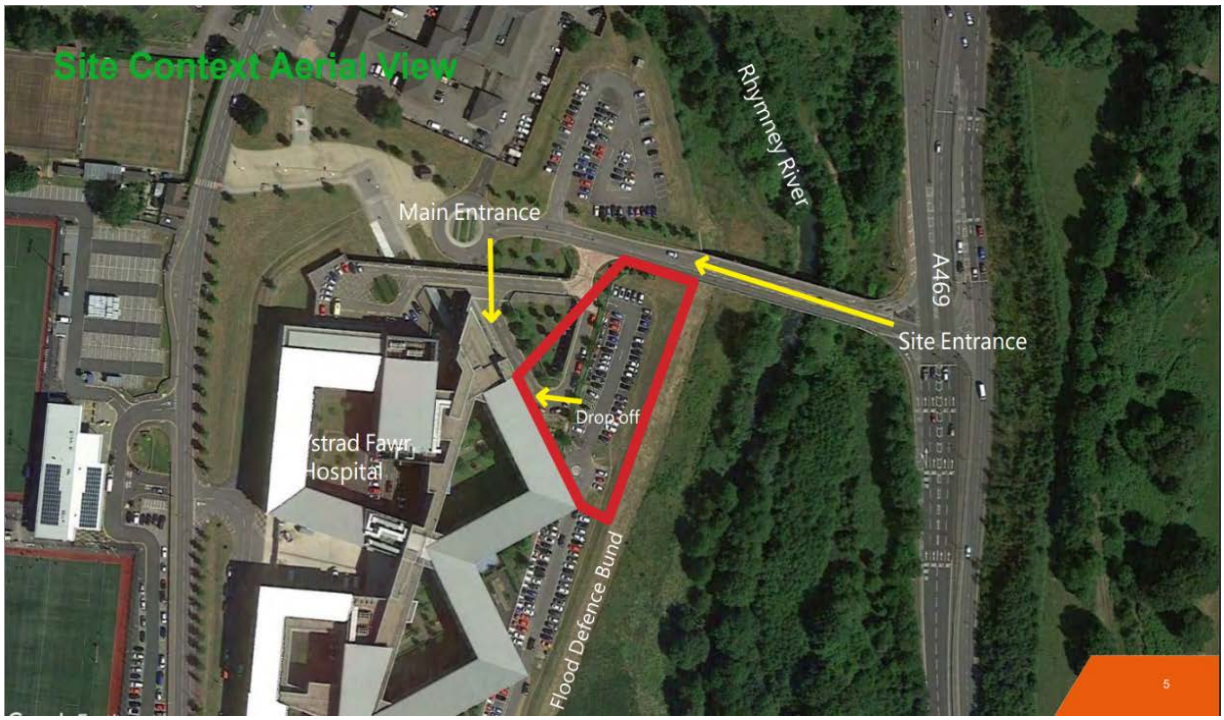
Breast surgery was previously performed on three hospital sites with the majority of surgery being done as day case, particularly at Royal Gwent Hospital. By centralising breast surgery at YYF the Unified Breast Care Unit is now set to become a centre of Excellence of its own by offering localised specialist breast diagnostic and treatment facilities to patients and afford opportunities to increase day case rates and reduce length of stay for breast patients in the Health Board area.

Design philosophy

The new unit was designed to meet the clinical requirements established by Aneurin Bevan Health Board and centralise the Health Boards breast screening facilities at YYF. The clinical spaces are located on the first-floor podium which links to the existing ground floor of YYF via a glazed link corridor. The unit is supported by columns over the existing car park adjacent to the main hospital entrance.

The unit was designed and constructed to minimise the disruption to the main hospital and avoid making alterations to the existing flood defences.

The aerial photo below shows the proposed site highlighted within the red zone in relation to the main hospital entrance.



The entrance to the unit is located in the Southwest corner of the building and leads directly to an open plan waiting area.

The aspiration was to create a building that provides state-of-the-art facilities in an environment that puts the patient's experience first, taking inspiration from café and hotel design.

The café space is located on the Southwest elevation and affords views over the river and woodland boundary.

A secondary staircase acts as a fire escape and discrete exit from the building.

bam First Floor Plan

The patient journey starts at either of the two entrance points, via the main lift core at level 0 or the glazed link at level 1. The majority of people will access the building from the level 0 lift core which is visible from the car park and main entrance. This is enhanced by lighting, signage and large automatic sliding doors. The secondary entrance is located off the podium at level 1, this is for drop-offs, ambulance access and covered access from the maternity department within the hospital.

Wayfinding within UBCU is achieved through internal signage and colour schemes which help to differentiate reception, clinical, treatment, support and administration spaces.

Facilities include:

- Consulting rooms
- Patient treatments rooms
- Prosthetic suite
- Café waiting and reception
- Staff well-being spaces
- Mammography and Ultrasound rooms
- Changing rooms
- Treatment rooms

The grey rainscreen panels were selected to match the existing hospital cladding whilst providing the unit with its own distinct identity. The pink feature panels at the ends of the building provide a civic presence and

help visitors upon arrival to differentiate the UBCU from other facilities within the hospital.

Internally, the design philosophy was to create a modern café or hotel feel with the choice of material palate being carefully considered so not to create an institutional feel associated with most hospitals. This has been achieved through artwork, natural materials, fixed and loose furniture, colour selection and features such as the solid wood feature ceilings in reception.

The objective was to select internal finishes that were also excellent for infection control, maintenance and durability.

One of the innovations BAM introduced during construction was the use of spray plaster which not only saved them a lot of time but gave them a brilliant finish to paint over. The system was ‘highly commended’ at BAMs national Health and Safety Awards 2023.

The Mechanical, Electrical and Public Heath (MEP) services have been designed to provide a functional and comfortable environment for both patients and staff.

In order to achieve the goal of providing a BREEAM excellent building the MEP design has incorporated many energy efficient systems including the use of air source heat pumps, photovoltaics and LED lighting throughout.

Electrical supplies are fed from the existing site supplies at YYF with the services running at high level beneath the podium slab between UBCU and the main hospital. A new Edge Core Computer room is located in the new unit connected to the existing core computer room within the main hospital.

The new plant room located at roof level contains the main electrical panels and air handling units. Service drops from the plant room are located with ceiling voids throughout the unit.

The building is a two-storey building with a primary concrete frame forming the structure from level 0 up to and including level 1. Above level 1 is a steel frame with a plant room at roof level.

The superstructure is supported by pad foundations. Level 1 floor construction is in-situ reinforced concrete. The podium is stabilised using reinforced concrete walls around lift and stair cores with diaphragm action provided by the concrete slab. The cores have been designed to cantilever from the pad foundations.

The ground floor will continue to serve as hospital car park with clinical accommodation on the first floor and plant at roof level. Displaced parking spaces have been supplemented elsewhere in the wider hospital site.

Construction

One of the major challenges during both design and construction was the close proximity of the flood defences in the form of a flood bund around two sides of the building. Careful consideration was given to the sequence of groundwork to minimise the impact on the flood bund itself. The structure has been located not to impact the flood bund whilst also ensuring the existing hospital remained in full operational use throughout the works.

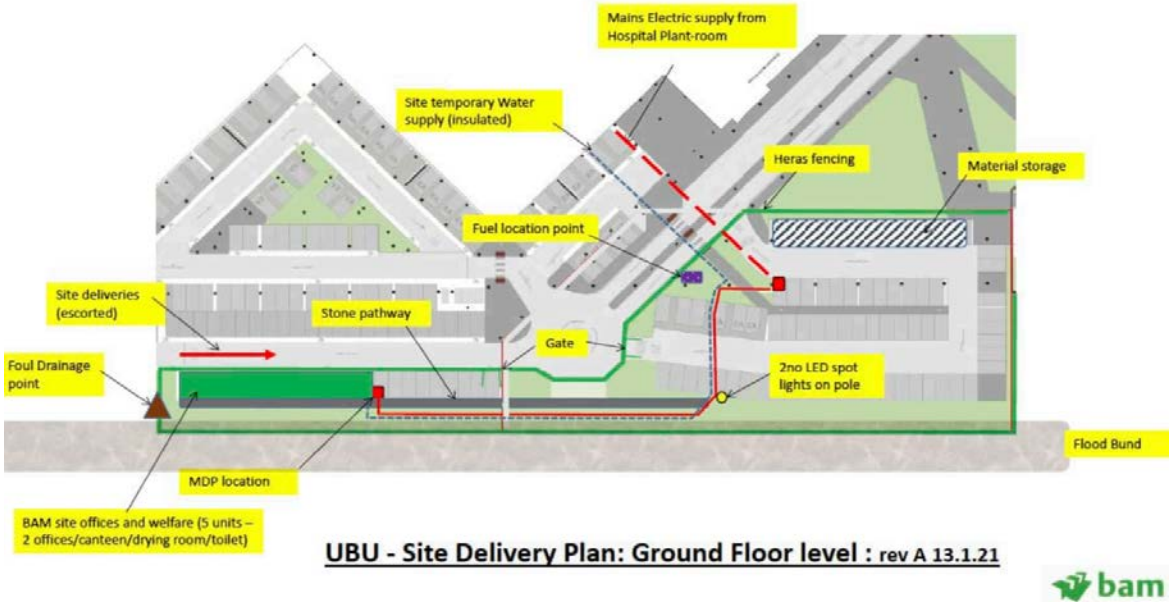
Prior to construction activities commencing on site careful planning was undertaken to ensure that the site works was segregated from the remainder of YYF which included the line of the Heras fencing sighted to keep a clear route for 'blue light' and main hospital access.

Additional Heras fencing was also placed around trees, albeit outside the actual site works area.

A CCTV security system was installed to view the site construction zone, monitored 24/7 and with an emergency out of hours contact.

Due to the site constraints of the project the site offices and welfare facilities were placed upon an existing strip of car park adjacent to the flood defence bund. Contractor parking was off-site. BAM also employed a security card system to the construction site via a turnstyle system along a dedicated pathway. Temporary MEP services for the site compound were provided via existing plant rooms within the main hospital.

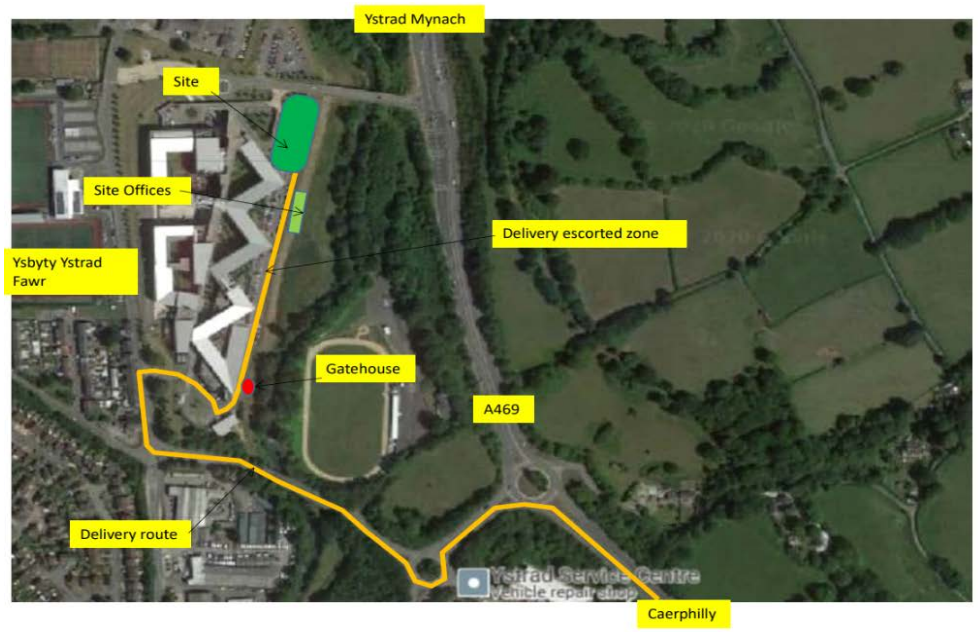
BAM also employed Bio-metric access control arrangements to ensure only inducted operatives were allowed on site.



Due to site constraints in most cases major site deliveries via the A469 were not possible. Deliveries were therefore directed to use the Southern hospital entrance from Caerphilly Road which in turn connects to the A469 via a separate junction. The entry point was barriered, so BAM employed a gateman to control deliveries. By agreement deliveries were restricted to before 8.30 am or after 3.30 pm.

Prolonged deliveries such as concrete pours and steel erections were agreed in advance with the Estates Department. The site delivery plan below highlights the delivery routes and location of site compound relative to the main hospital.

Site material storage was secured below the existing podium slab and accessible by small tele handlers.



UBU - Site Delivery Plan

The project design considered construction design and management at every possible opportunity. The design elements included small steel sections appropriate for the constricted site which could easily be lifted into position. The staircases were 'Stairmaster' pre-formed series of units easily lifted into position. The internal partitions were light weight construction for ease of erection.

Wherever possible the existing tarmac was retained which helped to mitigate any mud transfer on adjacent roads or surface water contamination. Wheel washing requirements supplied by the ground workers were on standby if required.

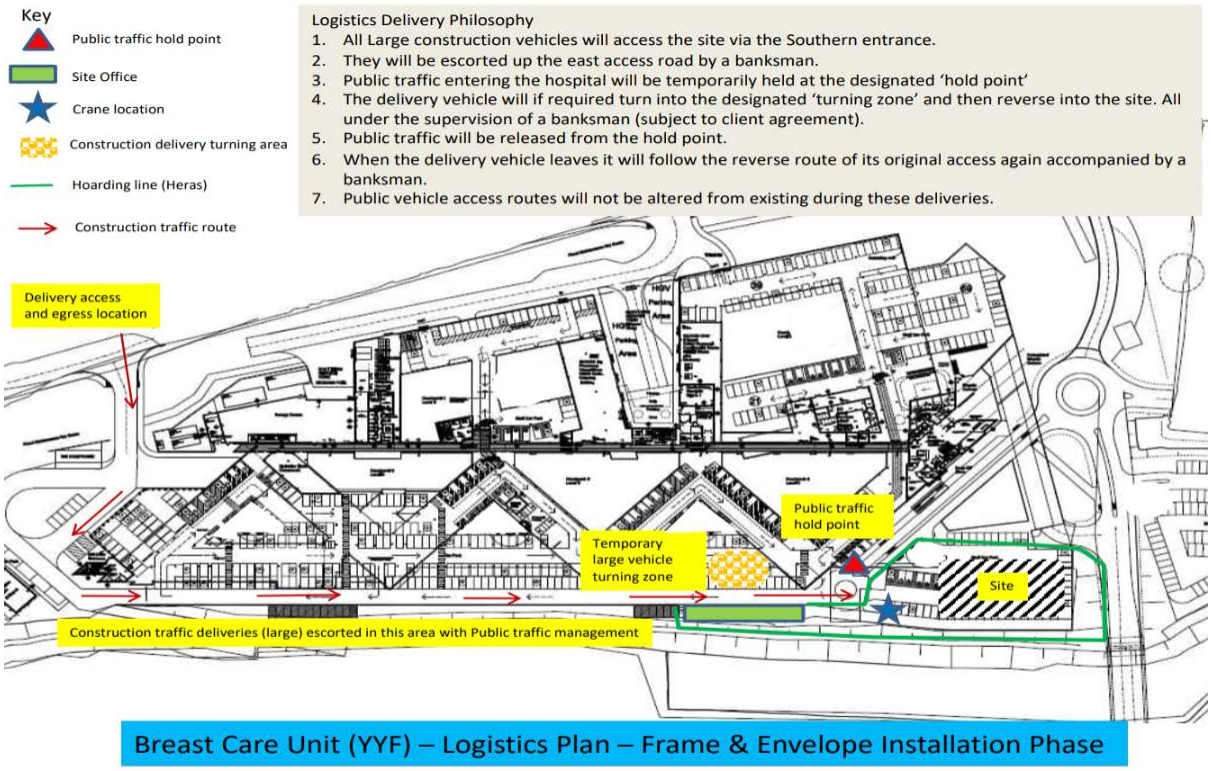
BAM and their supply chain used their best endeavors to keep the site and surrounding area as clean as possible during the work, i.e. during concrete deliveries socks or chutes were used to recycle wash-out water within the wagon or transport back to the concrete batching plant. A lined skip was also provided for washing out the concrete pump.

Careful consideration was given to the discharge of any ground water encountered during excavations filtering out any contaminants before being discharged back into the foul water system.

Due to the site's close proximity to the flood bund some ground works impacts were inevitable particularly during the foundations for stair core No. 2, but this work was closely controlled and monitored to maintain the integrity of the flood bund.

The erection of the steel frame required the use of a large mobile crane.

A temporary traffic management plan was developed and agreed with the Estates Department which helped maintain access to the hospital car park for visitors.



During the installation of the external envelope deliveries was organised on a 'just in time' scenario due to the limited storage space on site.

During commissioning BAM employed a project specific commissioning manager who co-ordinated soft landings and included site visits/training of applicable staff prior to completion and handover of the building.

Delivery Team and Headline Information

Client	Aneurin Bevan University Health Board	Supply Chain Partner	BAM Construction Ltd
Project Director	Hannah Capel	Architects	Powell Dobson
Health Board Project Manager	Liza Methuen	Structural Engineers	ARUP
Project Manager	Gardiner & Theobald	Building Services Engineers	ARUP
Cost Advisor	Gleeds	Cost Manager	N/A
NEC Supervisor	DRAC Consulting	Health Planner	N/A
Gross Floor Area	1300 sqm	Construction Cost	£8.9M excluding VAT
Commencement on Site	October 2022	Completion	January 2024
		Opened	February 2024

Some noteworthy points considered as part of the evaluation are included below, wider issues are considered in detail and can be found under 'Best Practice & Lessons Learnt'

Design strategy

The Health Board undertook an extensive stakeholder engagement over several years in respect of service unification and subsequently established a Breast Reference Group in order to ensure an interface between services users and the planning and provision of breast services for residents of Gwent and South Powys. Members of the group were instrumental in developing the detailed design for the unit, ensuring that the patient remained at the heart of the development.

During COVID the design development process design workshops were arranged virtually and attended by all key stakeholders including a wide range of Health Board staff including administrative, clinical and support staff together with members of the Design Team and the Supply Chain Partner.

Environmental Design

In line with the NHS Decarbonisation Strategic Delivery Plan the building was designed to maximise low zero carbon technologies and methods of construction and achieved a BREEAM Excellent Certification.

Key features included:

- Fabric first approach – high insulation performance for walls, windows and roof
- Detailing – Air tightness increases efficiency and environmental performance
- Air source heat humps – including heat recovery
- Lighting – use of LED and energy efficient systems
- Roof mounted photovoltaic array – on site energy generation
- Rain gardens – managing discharge of rainfall

Patient Interaction

Fundraising efforts by local communities have been ongoing since 2018 and have raised more than £260,000 to ensure the unit has a less clinical need and more homely feel. The funds raised have enabled the staff to purchase decorative items to improve the unit's environment, including artwork, furniture and feature lighting.

The funding has also contributed to artworks involving local artists, a dedicated children's area, furniture and equipment for waiting rooms and consulting rooms and sky view lights for Ultrasound mammography and treatment rooms.

Pupils from a local Primary School also designed and created a beautiful piece of artwork to be displayed in the unit's main waiting area.

A huge thank you to Pengam Primary School for their hard work and generosity!

Health and Safety

There was only one recorded incident for around 90,500-man hours of construction. The incident resulted in one operative being off work for 4 days.

Considerate Constructors Scheme awarded BAM an 'Excellent' performance level across respect for the community, care for the environment and value their workforce and commented during construction the close working relationship with the hospital community appears to be maintained and relevant site information is being promoted to the public. A good standard of welfare facilities and information is readily available, providing a caring and supportive working environment for the workforce.

Community Benefits Framework KPI's on the use of local labour and suppliers were collected which identifies value for money investment of the *Welsh Pound*, and the Welsh Government Community Benefit Measurement Tool shows for every £1 spent on the project £0.71 was reinvested in Wales. A total of 642 apprenticeship weeks have been completed. The figure of 2,454 Tonnes of waste was diverted from landfill with a saving of £39,422.

A number of other community benefit initiatives were also undertaken involving the wider community:

- During the project BAM partnered with Llamau taking part in a number of initiatives to support the charity. This included sponsored dog walks, 5-a-side football tournaments, sleep outs and a 10k run completed by the team which raised £2,000.
- BAM also teamed up with Thames Valley Construction to raise £1,000 for the Dreams & wishes charity.

BAM will continued to support Llamau on future projects and have teamed up with EMR Group to divert waste metal from landfill donating the value of the material to the charity.

As part of BAMs educational engagement, they successfully delivered a series of Employability Skills Workshops in partnership within the City Region and Careers Wales.

Working also with charities such as the School of Hard Knocks and Dallaglio Rugby Works BAM delivered mock interviews, team building and wellbeing sessions to supplement Into Work Programmes for young people living in disadvantaged areas and facing socio-economic barriers.

BAM want to continue work in the area to support the new Welsh Curriculum and are in the process of sharing STEM resources and toolkits with local schools. The education resources for primary and secondary schools promote the industry as a growing priority sector in Wales, link schools to STEM ambassadors, new technology and employer-based CPD for teaching staff.

During this time, BAM also provided a young female NEET person work experience with the Sustainability team and she helped deliver skill building activities as part of her placement.

BEST PRACTICE & LESSONS LEARNT

Centre of Excellence for Breast Care Services

The objective of Unified Breast Care Unit was to provide a model for breast care services that maximise the use of clinical resources under one roof creating a specialised centre that can provide more comprehensive care to patients.

The need for change was vital as the clinical model had centred on care being provided across three separate sites affecting access for patients both in terms of travel times and access for diagnosis and treatment.

Now that all services are under one roof treatment is now currently 23 days. Surgical procedures that can be managed as a day case which have increased from 30% to 70% since the unit opened.

As a result of the integration of two teams into the new unit and the delivery of outpatients on one site, in March 2025 92.5% of cancer patients were treated within 62 days compared to the Welsh Government target of 75%.

These benefits highlight the positive impact of the project on the breast care unit at YYF, enhancing its ability to serve as a regional centre for breast cancer care.

The main best practice and lessons learnt points are:

Best Practice

- The focus of the project was to provide a model for breast care services that maximise the use of the resources that were spread across 3 separate sites within the Health Board geographic area.
- The project has brought together various breast care services under one roof, creating a specialised centre that can provide more comprehensive care to patients.

Lessons Learnt

- Early engagement with the right people.
- Patients are expressing positive experiences of the care they receive in the breast care unit.

Business Case Approval Process

As the project was delivered through a framework and utilised a NEC3 suite of contracts it has benefited from a collaborative approach between all parties.

The new unit was subject to a standard business case approval process by Welsh Government namely Strategic Outline Case, Outline Business Case and Full Business Case.

Predicting construction inflation on goods and materials proved particularly challenging for the team where pricing indices were changing on a frequent basis.

The main best practice and lessons learnt points are:

Best Practice

- The project brief was clearly defined and included a schedule of accommodation, strategic outline case and a feasibility study.
- Streamlining the preconstruction phases of OBC and FBC to maintain design momentum to reduce delay, manage risk, improve buildability and maintain programme and budget control.
- The project was delivered through some unprecedented times including COVID and the Ukraine war which had a significant impact on construction inflation. Despite these challenges the project was delivered on time and within budget.

Lessons Learnt

- A clearly defined brief meant there were no fundamental changes which saved a lot of time once the team were appointed.
- For less complex projects of this size consideration should be given to adopting a BJC process where the length of the approval process can be shortened significantly.
- Avoiding indecision is key to any project's success.

Collaboration & Communication

One of the most successful aspects of the project was the strong collaboration between the contractor, Health Board, designers and end users. Regular engagement ensured that the unit was tailored to the clinical needs and operational workflows required by the clinicians.

Despite the challenges imposed by the COVID pandemic during the early stages of design the team were able to come together and embrace new technologies and, in their enthusiasm, and commitment to deliver a state-of-the-art breast care facility for the people of Gwent.

C sheet production was quicker and done at stage 3 as the Health Board had already prepared ADB room data sheets making review and sign off much more efficient and reduced the number of stakeholder engagement meetings needed.

The team ethos and collaborative working meant that design changes were kept to a minimum.

The main best practice and lessons learnt points are:

Best Practice

- Incorporating an estates representative within the project delivery team was a great initiative in assisting with issues such as car parking and site deliveries.
- New ways of working were developed during COVID such as Microsoft teams, Skype and Zoom which fostered greater collaboration between the contractor, Health Board, designers and end users.
- During the projects lifecycle there were a number of changes in personal although this did not have a detrimental impact on the project's delivery.
- The NEC Supervisor appointment is key to the successful delivery of any project.
- Close alignment of the NEC contract and internal governance during change is key to the success of any project in avoiding delays to programme and payment protocols.

Lessons Learnt

- Close liaison with the estates team was key to ensuring that site activities did not affect the day to day running of the main hospital site.

- Regular engagement helped ensure the facility was tailored to the clinical needs and operational workflows required by the end users.
- For future projects a succession planning document would be helpful in ensuring any changes in personal do not come as a shock to the team.
- Adequate funding prior to detailed design development needs to be set aside for the NEC Supervisor's appointment.
- The Health Board operated an effective sign off procedure which kept in tandem with the timescales of the NEC contract.

Construction Methodology

The site was located on an existing live hospital and boarded by a flood defence bund which meant access was particularly constrained. This led the contractor to look at a variety of options including modular construction. Ultimately the modular route was discounted late in the design process which had a detrimental impact on the design team and affected the overall programme.

Despite the change from modular to traditional the quality of the finishes was not affected. The traditional approach also made it easier to accommodate any late changes to finishes.

Due to the site being well managed throughout at no time during the entire project duration was the day to day running of the hospital adversely affected by the works.

- The SCP site team was in regular contact with all key stakeholders to ensure the works did not affect the day to day running of the hospital.
- In order to minimise disruption and also speed up construction the contractor changed to spray plaster.
- All site deliveries were made at agreed times thereby minimising travel inconvenience to patients and staff attending the main hospital
- Logistics were well managed throughout the project. The SCP supply chain were fully briefed on site constraints and had safety inductions prior to being allowed on site.

The main best practice and lessons learnt points are:

Best Practice

- A traditional construction methodology in lieu of MMC was adopted for the new unit which was finished to a high-quality standard.
- The traditional route allowed for greater flexibility in making changes and in the choices for creating a caring and reassuring environment for staff and patients and their families.
- If an MMC construction approach is to be adopted, then it must be defined within the project brief and the appropriate procurement route followed.

Lessons Learnt

- An earlier decision to drop the MMC route would have saved time on the programme.
- To make the unit as welcoming as possible and minimise the clinical impact.

Handover and Commissioning

There were a few issues encountered at handover stage with commissioning in particular the quality of water and also the ventilation systems. During the project there were updates in the WHTM's as a result of COVID which meant an increase in air changes.

- If earlier engagement with NWSSP-SES specialist engineers, NEC Supervisor and the SCP had been carried out in relation to the planning of witness testing and acceptance and clearer lines of responsibility agreed at the outset, then these issues along with robust witness testing and reporting format could have been better understood.
- The NEC Supervisors weren't in post at the start of the project but would be involved from the outset of detailed design for future schemes through the news BfW2 frameworks. Their input was invaluable.

The main best practice and lessons learnt points are:

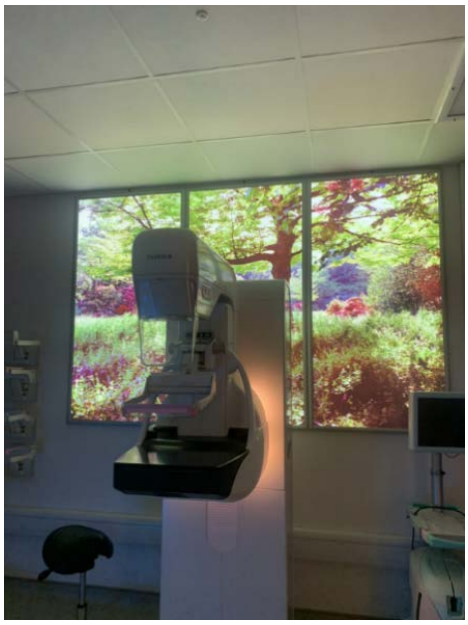
Best Practice

- Provide a safe, practical and comfortable facility to WHBN and WHTM standards.
- The role of the NEC Supervisor is key in liaising with both the SCP and NWSPP SES.
- Commissioning requirements to be fully aligned with the programme affording time for the NEC Supervisor to fully engage with the contractor over the processes required.

Lessons Learnt

- The design tools used to calculate water use need to change in line with the BREEAM requirement to save water.
- Due to the NEC Supervisor not being in post at the start of the project witnessing and defect recording arrangements were not formalised.
- Earlier appointment of the NEC Supervisor.

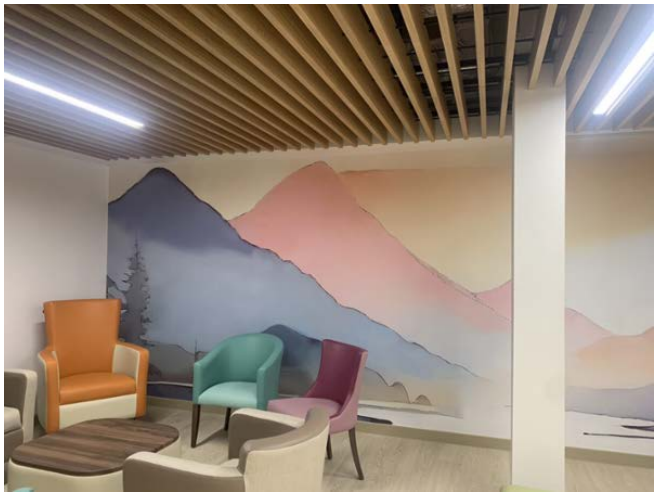
TESTIMONIALS



The then Health Minister, ***Eluned Morgan***, said:

“I’m delighted to see the new Breast Care Unit at Ysbyty Ystrad Fawr now open. This centre will provide people in Gwent with better access to high quality care and will mean more people can be managed on a day case basis and thereby avoid a hospital admission.

“Our £11m investment in this centre is part of the Welsh Government’s unwavering commitment to improve cancer services and outcomes for those affected by cancer and ultimately saving more lives.”



Rhiannon Foulkes*, Consultant Breast Surgeon and Clinical Lead for the Breast Unit*, said:

“Bringing both of our breast services teams together in one place will hugely benefit our patients and staff and will allow us to provide expert care and facilities of the highest standard. As a team, we are very excited to be able to provide a gold-standard diagnostic centre for breast care in our Health Board area.

“We have also been overwhelmed by the fundraising efforts and continued support of our local communities – their contributions will make a significant difference to the experience of our patient and we can’t thank them enough.”

Patient Representative for the Breast Unit, ***Glenda Lewis***, said:

"Being diagnosed with Breast Cancer is quite a traumatic experience, and the environment that you're in when you're told this awful news can have a devastating effect on you. When I walked into this building today, I noticed what a calming effect it has on you, even just walking around. I

know for the future women and men who are diagnosed with Breast Cancer, it will be a better experience prior to the building being built.

"I hope everyone who has to come here will really appreciate the effort that's gone on in all the years of planning, all the amount of money that's been spent and the fundraising that's been involved over the years to make this happen."

ABUHB chief operating officer, ***Leanne Watkins****, said:* "The breast care unit project has been in our plans for a number of years, and so it's fantastic to see it finally come to fruition. The clinical teams have worked incredibly hard to ensure that this purpose-built facility will provide the best possible treatment for our patients, and we're so proud to now be able to offer our patients the breast care experience that they deserve."

"Our patients and community groups have been amazing in working with us to develop the centre and we thank them for their support."

"We'd also like to thank BAM Construction for their work in delivering such an exciting project and bringing our vision to life"

Justin Price *Construction Director – Western BAM Construction Ltd*, said "BAM Construction is immensely proud to have been involved in the delivery of the new Breast Care Unit in Ystrad Mynach for the Aneurin Bevan University Heath Board. This vital facility will provide state-of-the-art care and support to patients across the region, and we are delighted to have played a role in bringing it to life. Through close collaboration with the Health Board and project partners, we have delivered a high-quality, purpose-built environment that will serve the community for years to come".

For Further Information contact:

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