



**Private and confidential**

Huw Thomas, Director of Finance  
Hywel Dda University Health Board  
Ystwyth Building  
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11 July 2022

Dear Huw

**Re: Review of the methodologies utilised within the Financial and Economic Land Appraisal Project Output Report and appendices**

The Financial and Economic Appraisal Group has undertaken a financial and economic appraisal and comparison of five sites identified as potential locations for the new urgent and planned care centre under the A Healthier Mid and West Wales Programme.

The Group has asked PwC to undertake a review of the methodologies it has utilised and the assumptions it has made in the appraisal.

The Group has provided PwC with the following documents (received on 6 July 2022):

- Financial and Economic Land Appraisal Project Output Report July 2022 - Draft Version v0.1.
- Hywel Dda University Health Board A Healthier Mid and West Wales Programme Business Case - Selection of Sites for the Urgent & Planned Care Hospital - Site Development Comparative Costs July 2022.
- Hywel Dda University Health Board A Healthier Mid and West Wales Programme Business Case - Selection of Sites - Site Development Comparative Risks July 2022.

Our detailed comments and recommendations can be found in the appendix to this letter.

Our overall conclusion is that we found the Report and appendices to be clear and the underlying methodologies and approaches to be robust and well-explained. We recognise that this is an early stage of work, therefore there is a potential for cost estimates to change and new risks and costs to emerge, and the Report makes this clear.

We recommend that the University Health Board consider our recommendations at point (1) of the appendix on how to mitigate risk attached to making a premature determination of the preferred site, by putting in place a structured cross-Workstream options appraisal process.

We noted that the distribution of costs identified in the Site Development Comparative Costs report differs quite significantly by site, and this means that the risk profile of each Site is different. In point (10) of the appendix we suggest that the University Health Board consider undertaking a costed risk analysis, to better understand how these differential risk profiles could impact the costs of each site; and undertaking a similar approach to risks identified in the Site Development Comparative Risks report. We also suggest that in a future iteration, the University Health Board might wish to consider inflation-related risks, which might differ by cost category.

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We also understood that the Group has identified temporary staff relocation expenses as a revenue cost which would vary by site. We found the methodology applied and assumptions used to calculate these costs to be reasonable and robust. We suggest that the University Health Board consider risks that the conditions relating to staff compensation might change and/or more staff than anticipated might need to relocate. At a future point the University Health Board might consider undertaking a staff survey to possibly gain a more accurate picture of staff travel patterns, however we recognise that the costs of undertaking the survey and the limitations of the data it might produce would need to be weighed against the potential benefits.

We suggest that at a later stage the University Health Board might further consider any potential impacts on revenue costs by site which might be occasioned by delay to construction of the new urgent and planned care centre.

**Please note**

The work we have undertaken has been a high-level review based on our understanding of your methodology and approach as described in the documents made available to us. We have not reviewed any additional documents or calculations and have not undertaken any check as to the accuracy of data and/or calculations stated in the Report and its appendices.

We are not cost or risk advisers, and our findings are based on our advisory experience across comparable programmes and projects.

We hope that our findings are helpful to you. Please do not hesitate to contact me if you would like to discuss any aspect of this letter.

Yours sincerely

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## Appendix – detailed findings

1. We understand that a Financial and Economic Appraisal Group has been set up, chaired by the Director of Finance. Members are drawn from the University Health Board's Finance, Planning, Estates, Workforce and Transport teams. An external Project Manager and Cost Adviser are also members.

We understand that the key responsibilities of the group are to:

- Compare the capital costs of development of each site, including any known site abnormal costs.
- Identify any significant additional revenue costs that differentiate between sites.
- Quantify, if possible, the wider environmental and ecology costs of each site.
- Calculate the decarbonisation impact for each site if information is available to do so.
- Where appropriate capture the differential economic benefits/disbenefits of each site option.
- Provide a financial and economic comparison for site selection to the Board.

The Group reports directly to Programme Team and, via Programme Team, to Programme Group.

**PwC comment:** In our view this is a robust approach, which aligns with other processes we have seen. The scope of the Group asks the right questions and a governance mechanism is in place. External advice is incorporated within the Group and this is positive in our view.

We recommend that the Group regularly challenges itself, and is regularly challenged by Programme Team and Programme Group, as to whether conclusions it is reaching are being openly and transparently debated: there is a risk in any process that, if one solution is favoured early, evidence is subsequently interpreted to be favourable to that solution.

You have asked us to comment on how to mitigate the risk of a negative financial/economic impact occurring as a result of selecting a preferred site too early.

We understand that the focus of the Financial and Economic Appraisal Group is on a range of quantitative measures of the differentials between the shortlisted sites.

We assume therefore that the other Appraisal Groups are looking at quantitative and qualitative differentials.

We also understand that the University Health Board is working to a programme which reflects a strategic ambition to implement the A Healthier Mid and West Wales as soon as possible for the benefit of your population.

The mechanism for making a decision as to which site is preferred must therefore be capable of being implemented within the Programme's timescales but not expose the University Health Board to the risk of making a decision which is not based on the depth of analysis required.

We propose that this risk can be mitigated by putting in place a structured approach and doing this now which draws on approaches similar to those described in Welsh Government business case guidance, as follows:

- (i) Identify the criteria – similar to Critical Success Factors in a business case – which will determine which is the preferred site from each Workstream's perspective. In the case of the Financial and Economic Workstream these criteria might focus on the lowest risk-weighted site development, revenue, decarbonisation, environmental and ecology costs. Also identify a



means of ranking each site against each criterion e.g. Red-Amber-Green or a numerical scoring mechanism. Consider weighting the criteria.

- (ii) Draw up a single decision-making matrix which reflects all of the criteria across all Workstreams – this would be similar to an options framework in a business case.
- (iii) Regularly conduct sensitivity analysis to determine whether, for example, one site is emerging as the highest-ranking option because it is scoring relatively highly on one or a limited number of criteria and this is outweighing scores on other criteria. Regularly consider adjusting the criteria and/or weightings if this is happening.
- (iv) Undertake a cross-Workstream completion, review and update of this matrix on a regular basis – preferably in a workshop or working group context - as the analysis progresses, with regular updates to the Board and a final review and recommendation to the Board once all Workstreams have completed their work.

We propose that this approach would:

- enable a cross-Workstream analysis of the relative strengths and weaknesses of each site over an extended period with broad-based participation and therefore opportunity for challenge in the decision-making process;
- produce a base of evidence as to how the University Health Board had reached its decision; and
- mitigate the risk of the Board having to assimilate large amounts of information and make a decision under time pressure.

2. The Group has restricted the scope of the Report to differential costs associated with building on each site, on the basis that the capital costs of the building itself will be the same regardless of which site is chosen.

**PwC comment:** We understand that this approach enables the University Health Board to focus on one area, i.e. the costs and risks of preparing each site for construction. We recommend that at a later stage, the University Health Board ask its advisers to reconfirm that construction costs will be neutral whichever Site is selected.

We have noted the statement on page 10 that *“Some of the costs included within the cost analysis in table 1 would be included in [the £475m assumed construction cost of the new urgent and planned care centre], however as it is not possible to distinguish which of these costs are included, £475m will be utilised for illustrative purposes.”*

We recommend that this approach is challenged and refined as the development of cost plans progresses, to confirm that there are in fact no differentials between the construction costs on each site.

3. The Group has commissioned an external adviser – Gleeds – to assess site development costs for each site.

**PwC comment:** We consider that the University Health Board has appointed a reputable and highly experienced external cost adviser to mitigate the risk that site development costs are not identified and/or under-estimated.

4. The external cost adviser’s scope categorises costs under the following categories: Land Purchase; Site Conditions; Site Topography; Site Drainage; In-coming Services; and Off-site Highway Works.



**PwC comment:** Based on our experience of other programmes and projects, we have not identified any additional cost categories which might be included.

5. The Report states that “there remains the potential for significant variation in the estimated costs as the Health Board progresses to OBC stage” (page 11). The Report also identifies that there is a risk of “high degree of estimation leading to inaccuracies in costings” and states that the mitigation is an “independent review to be undertaken by PwC to verify the reasonableness of the assumptions made” (page 14).

**PwC comment:** We consider that these statements are reasonable and important to make.

6. The report titled “Site Development Comparative Costs (July 2022)” provided by Gleeds sets out the detail underlying the cost categories set out in Table 1 of the Report. We also noted that “District Valuer valuations have been sought for the land purchase costs of each of the sites”, and that adjustments have been made to some of these values based on recommendations by Savills (page 10).

**PwC comment:** We have challenged ourselves as to whether, from an external perspective and based on our experience, it appears to us that any evident costs might be missing, and it does not. We recommend however that it might be helpful to add some additional narrative into the Report to explain how the Cost Items set out in Gleeds’ report were arrived at.

We have noted that the report refers to the potential effect of presence of bats. One project we worked on in the Cardiff area needed to take account of a protected species of newt. Our observation therefore is that ecological risk can be significant.

We consider it positive that further external advice has been sought from Savills on land purchase costs.

7. The Report states on page 8 that the following costing methodology / assumptions have been made in assessing the site development costs of each of the sites:
  - a. Technical appraisals have been interrogated to assess the site condition costs for each site.
  - b. Direct quotations with companies have been sought where possible.
  - c. Where quotations are not available a combination of midrange estimates and general allowances have been utilised.

**PwC comment:** We understand this approach and it is in line with the approach taken on comparable programmes and projects we have seen. We recognise that the Report states that there is a risk of “High degree of estimation leading to inaccuracies in costings” and that “there is a high degree of uncertainty at this stage due to a range of factors highlighted as potential risks that we are unable to quantify” (page 4). Nevertheless we consider that it might be helpful to add some narrative to clarify these risks, e.g. inflation risk with regards to direct quotations.

8. The Group has commissioned an external adviser – Mace Group – to identify site development risks for each site. Mace Group has produced the report titled “Site Development Comparative Risks (July 2022)”.

**PwC comment:** We consider that the University Health Board has appointed a reputable and highly experienced external adviser, with long-standing knowledge of the Programme, to mitigate the risk that site development risks are not identified and/or their impact under-estimated.



9. The methodology adopted in the Site Development Comparative Risks report is as follows:
- Approximately twenty Risk Items have been identified per site.
  - Each risk has been scored by assigning a Risk score, which considers whether the risk is low, manageable or fundamental; and an Impact score, which considers whether the Risk would have a limited, material or major impact on the Programme if it materialised.
  - The Risk score has been multiplied by the Impact score to arrive at an overall score.
  - Comments are provided in the Description and Mitigation columns to help the reader to understand how the scores were arrived at.

**PwC comment:** This methodology aligns with other comparable projects and programmes we have worked on and we do not consider that any material risks are missing. We have noted however that risks have not been quantified. We recommend that this could be considered at a later stage of analysis, and expand on this point in (10) below.

10. The estimated site development costs identified by Gleeds have been totalled for each Site and are presented in Table 1 of the Report. The conclusion that Site 12 represents the lowest costs and Site C the highest is stated in Table 2.

**PwC comment:** We noted that the distribution of costs in Table 1 differs significantly by Site, as shown below:

	Site 7 £m	Site 7 %	Site 12 £m	Site 12 %	Site 17 £m	Site 17 %	Site C £m	Site C %	Site J £m	Site J %
Land Purchase	2.862	11%	3.93	20%	3.63	18%	3.516	12%	2.28	9%
Site Conditions	8.028	30%	1.87	9%	0.83	4%	8.26	29%	1.255	5%
Site Topography	3.85	14%	3.55	18%	5.5	27%	7.25	26%	4.6	19%
Site Drainage	3.975	15%	2.913	15%	2.686	13%	3.088	11%	3.708	15%
Incoming Services	6.165	23%	2.65	13%	4.654	22%	3.131	11%	7.011	29%
Off Site Highway Works	1.985	7%	5.03	25%	3.39	16%	2.995	11%	5.62	23%
<b>Total</b>	<b>26.865</b>		<b>19.943</b>		<b>20.69</b>		<b>28.24</b>		<b>24.474</b>	

This means that the risk profile of each Site is different with regards to site development costs.

The Report acknowledges this: “Costs between sub-headings vary significantly across each of the sites with the highest difference in site conditions” (page 10).

However, we suggest that, at a future stage of analysis, the Group consider costing and weighting the risks of each Site by:

- Identifying risks under each of the cost categories per site.
- Estimating the cost to the University Health Board if a risk were to materialise.
- Estimating the probability of the risk materialising as a percentage.
- Multiplying the cost if the risk were to materialise by the percentage probability of it materialising, to calculate a risk cost.
- Weighting the risk costs by the percentages shown in the table above.
- Totalling the risk costs to produce a total weighted risk cost per site.

The total weighted risk costs per site would then be added to the site development costs. This approach would give the University Health Board an understanding of how the sites compare from a risk perspective, and it could lead to a different ranking of the sites.



It would also expose what the cost to the University Health Board might be if a risk were to materialise.

A similar approach could also be adopted to calculate risk costs for the site development risks identified in the Site Development Comparative Risks report. These risk costs could also be added to the costs described above, and might also affect the ranking of the sites.

We would also suggest that inflation could impact cost categories differently. This would impact Sites differently because of the differing distributions of costs by category shown above. We suggest exploring this potential risk at a future stage.

11. The sensitivity analysis on site development costs described on page 15 of the Report seeks to show how much the costs of each site must reduce to become equivalent to Site 12.

**PwC comment:** We agree with this approach to understanding the differences between Sites. At a future stage of analysis it could be useful, in conjunction with the weighted risk costing described in (10), to conduct further sensitivity analyses to understand how sensitive different Sites are to increases in individual costs, and which cost elements would need to change most for Site 12 to no longer be the most attractive site from a cost perspective - for example, Site 12 would appear to be more exposed to increases in Land Purchase and Off Site Highway Works costs than any other Site.

12. The Group has assessed whether there would be any significant variation in revenue costs between the shortlisted Sites. The Report states that, “as the clinical model is going to be predominantly the same irrelevant of site, at this stage it is difficult to determine any significant variation” (page 12).

The Group has concluded that the only revenue cost where there could be differentiation between Sites is temporary staff relocation costs.

To calculate temporary staff relocation costs per Site, the Group has made the following assumptions:

- Only staff employed at Glangwili and Withybush Hospitals would be required to change work base.
- All staff who are currently in employment at both sites would be employed at the time of the new hospital opening.
- The same staff would relocate to each of the shortlisted sites and each member of staff would travel individually via car.

The Reports states that details of which staff could be relocated are unknown, therefore no attempt has been made to break down the analysis into different staff groups who would be required to move work base.

The Group has used data provided by Transport for Wales, including travel distances between home postcodes, current work base and each of the proposed site locations, to calculate the potential number of miles per journey eligible to be claimed if all staff based at Glangwili and Withybush were to travel to each of the respective Sites.

This figure has then been adjusted to account for the fact that not all staff who have Glangwili and Withybush stated as their work base would be required to move.



To assume the number of journeys each member of staff would make per year, the Group has used information included in the National Travel Survey 2019 for residents in England as a proxy. This survey states that on average 140 commuting trips are undertaken.

Costs are then calculated on the basis of an assumption that “staff would be eligible to reclaim mileage at 25p per mile for four years under existing terms and conditions of service”.

We understand that the calculation to arrive at an assumed excess mileage cost per Site is therefore:

*Adjusted number of miles per journey x 140 journeys per year x £0.25 per mile x 4 years*

**PwC comment:** We have reviewed this methodology and consider that it is robust and reasonable.

The assumed number of staff journeys has been based on proxies – mileage data provided by Transport for Wales on a postcode basis; National Travel Survey for England 2019 data – and we consider this to be reasonable at this stage.

The Trust might wish to refine its assumptions by, for example, undertaking staff surveys, however we recognise that, even if a staff survey were undertaken, the results would be subject to change by the time the new urgent and planned care centre opened, and the costs of doing a survey would need to be weighed against the potential value that could be gained from it.

We recommend that the assumption that “staff would be eligible to reclaim mileage at 25p per mile for four years under existing terms and conditions of service” should be caveated with a statement that there is a risk that this condition could change and the cost to the University Health Board could therefore increase.

13. The Report states that the Group has assessed that there is not enough variation between revenue costs at this stage to affect site selection (page 12) and that, as the business case progresses through to the next stages, greater granularity will be known in terms of the proposed clinical model across the University Health Board which may influence the revenue costs dependent on which site is selected (page 13).

**PwC comment:** We consider that these are reasonable and understandable statements.

In a future iteration the University Health Board might consider whether the Sites present differing levels of risk of delay and disruption which could have a consequential impact on revenue costs.

14. The Report states that “It was assumed that all other revenue costs such as digital, maintenance contracts and consumables would be the same across the shortlisted sites” (page 12).

**PwC comment:** Given that the scope of the new urgent and planned care centre will be the same regardless of which Site is chosen, this seems to be a reasonable assumption, however we would suggest that it should be tested at a future stage of analysis.

15. The Report states that “It has not been possible to calculate the different decarbonisation impacts for each site” (page 11).





**PwC comment:** We suggest considering adding some narrative here to explain why this has not been possible at this stage, and whether and under what conditions this might be possible at a later stage.

16. With regards to economic appraisal, the Report states that the University Health Board has consulted with Welsh Government, Health and Care Economics Cymru and the Foundational Economy Department within Welsh Government and confirmed that no appraisal is required, on the basis that the zone is too small for differentiation between sites to be discernible (page 5).

**PwC comment:** Any risk to the University Health Board associated with not doing an economic appraisal has been mitigated. The University Health Board may wish to consider its message if asked about this by the media.