Jersey Future Hospital Project

Outline Business Case

Appendix 29 – Optimism Bias model and methodology

CLIENT:
THE STATES OF JERSEY

PROJECT NUMBER:
FUTURE HOSPITAL PROJECT

ISSUING COMPANY:
GLEEDS ADVISORY

Document Control

Version	Date Issued	Summary of Changes	Author
V1	27.9.17	Document compilation	T Nicholls
V2	24.10.17	Template updated	T Nicholls

GA Optimism Bias Estimator: Buildings Projects

Option F - Alternative JGH

- (•) Standard Buildings
- ( ) Non Standard Buildings
- ( ) Both Standard & Non-Standard

Upper Bound Optimism Bias

Non-Standard Buildings		Standard Buildings	
39	51	4	24
Works Duration	Capital Exp'ture	Works Duration	Capital Exp'ture
Non-Standard Buildings		Standard Buildings	

Risk Area Contribution

	*Mitigation of OB **	OBC	SOC		
Procurement					
☑ Complexity of Contract Structure		70%	70%	1	0
☑ Late Contractor Involvement in Design		65%	64%	3	2
☑ Poor Contractor Capabilities		80%	80%	4	9
☑ Government Guidelines		80%	78%	0	0
☑ Dispute & Claims Occurred		65%	60%	4	29
☑ Information Management		40%	40%	0	0
☐ Other				0	0
Project Specific					
☑ Design Complexity		40%	40%	3	1
☑ Degree of Innovation		55%	54%	1	4
☑ Environmental Impact		50%	50%	0	0
☐ Other				0	0
Client Specification					
☑ Inadequacy of the Business Case		55%	50%	31	34
☑ Large No. of Stakeholders		35%	35%	6	0
☑ Funding Availability		50%	50%	8	0
☑ Project Management Team		55%	50%	0	1
☑ Poor Project Intelligence		40%	40%	6	2
☐ Other				0	0
Environment					
☑ Public Relations		55%	54%	8	2
☑ Site Characteristics		45%	42%	5	2
☑ Permits / Consents / Approvals		40%	38%	9	0
☐ Other				0	0
External Influences					
☑ Political		55%	56%	0	0
☑ Economic		50%	50%	0	11
☑ Legislation / Regulations		70%	68%	9	3
☑ Technology		50%	50%	0	0
☐ Other				0	0

** At 100%, or if deselected, the OB has been fully Mitigated, at 0% all OB remains Unmitigated*

Unmitigated Optimism Bias

Non-Standard Buildings		Standard Buildings	
Duration	Capex	Duration	Capex
		2%	10%

Risk and Mitigation Commentary -

Option **F - Alternative JGH**

Procurement

Complexity of Contract Structure	Contract structure will be based upon currently well developed best practice and as such will not be unduly complex. All demolition and site clearance work will form part of the Construction Contract and the Future Hospital will be constructed in a single phase (after completion of enabling works and land purchases have released the single phase site area). This will improve the market attractiveness of the project and will be helpful in avoiding contractor risk premiums. The contract will be based upon 2 stage tender arrangements. It will involve a single build phase and so avoid much of the risk associated with inter-contract relationships required when multiple phases are separately tendered. This approach has been market tested and approved in the Detailed Procurement Strategy
Late Contractor Involvement in Design	The design is based upon a high level appraisal completed by specialist Hospital design advisors. Contractor involvement at this early site selection stage would not have been beneficial given the limited degree of design material developed. Contractor will be involved following the development of the 1:200 design consistent with UK best practice The contractor will enter into a Pain/Gain relationship with the client based on a market tested Target Cost and Guaranteed Maximum Price; which allows the contractor to benefit from innovation of input and the Pre-contract services agreement maximises this input as early as possible for the benefit of the client
Poor Contractor Capabilities	Contractor selection has not yet taken place. although the PQQ has been completed. Contractor competence and resource capability will be fully tested within the two stage tender (but before this we have already tested capability in the PQQ process) process with only those with demonstrable track record of delivery being invited to tender. Market conditions and project composition suggest that there will a high degree of confidence in securing a competent contractor. The nature of the construction will be defined during the Pre-Construction Services Agreement Period. This Early Contractor Engagement allows for definition and control of the design by the contractor to maximise buildability.
Government Guidelines	Compliance with SOJ guidelines within the Procurement is defined and agreed within the detailed procurement strategy and whilst SOJ do not have to comply with EU regulation the best practice principals contained therein are adhered to. SOJ have confirmed that the project will be based on current UK healthcare best practice in hospital design. Construction delivery will also follow formal SOJ Building regulation and planning guidance again modelled on UK convention. It is understood that planning regulations setting out the approach to the sites change of use exist, however a significant level of objection has not been encountered and the Planning Inquiry date has been set. The development of a brief and 1-200 design based upon the HBN/HTM & DCAG provide surety that the scheme can be delivered and some derogation (specific to the Jersey context is approved)
Dispute & Claims Occurred	There is an ongoing risk of contractor claims and disputes over the finally delivered areas within the hospital. This may be further mitigated through detailed design and also through the advanced agreement of derogations relating to spatial reductions. The risk of other disputes associated with unforeseen site conditions is likely to be lower given the absence of previous development or the need for remediation. An NEC form of contract will be used which has clear and collaborative methods for preventing and mitigating disputes.
Information Management	Project Information is currently developed by specialist advisors working in association with SOJ officers. The Project Information is held in a secure portal (GleedsSpace) The Project will comply with BIM level 2 guidance and the EIR / BEP have been issued in draft for SOJ approval
Not currently applicable	

Project Specific

Design Complexity	Whilst service relocation and demolition works are required to allow the site to be formed, the following hospital construction is considered to be straightforward and akin to construction on a clean site. The footprint will allow the design to follow UK NHS best practice guidance and service planning but will require greater innovation and service delivery flexibility to achieve the best functional arrangements. Innovative thinking will also be required in the implementation of the proposed revised outpatient model. Some spatial risk also remains in that current area reduction targets may not be achieved in all functional areas, however; 1-50 room level plans for highly repeatable rooms have been concluded to support spatial understanding and inform the Schedule of Accommodation. As have the same been assessed on the basis of demand and capacity modelling for Bedrooms, Consulting Rooms and Theatres
Degree of Innovation	Hospital design will follow UK best practice and in this regard will not introduce any high risk design, or services or construction strategies. Some risk remains over groundwork and foundation design to mitigate soft / sandy ground which is

	known to be prevalent. We are currently designing to worst case and whilst this is still a risk, this is being managed as far as is practicable. Initial design review suggests that the increased vertical stacking required in this solution will not unduly impact on operational performance or efficiency of the hospital. The client is open to innovation in design and is forward thinking in terms of optimised solutions and considering most appropriate solutions for a low carbon building. Whilst this is always being considered in the context of affordability, the approach of the client and design team is positive. The hospital is based upon best practice in the UK and level of innovation will be appropriate within the context of a general hospital in Jersey
Environmental Impact	The solution is not considered to present any specific environmental impact over an above that of the existing hospital. However, its town centre location means that good design will be required to minimise the impact of its scale on its immediate neighbours and the public. Given the site's current and previous use, some contaminated ground has been anticipated but survey information indicates this is not expected to be significant. The EIS issued as part of the Outline Planning Application summarises the Environmental Impact.
Not currently applicable	
Client Specification	
Inadequacy of the Business Case	Being the subject of a Strategic Outline Case the project has been informed by significant project design and health planning consideration. The approval of the Single Site Option from the SOC has allowed the project to proceed with Outline Business case where further levels of detail and scrutiny will be applied. However, there remains a risk that the development of service delivery models, specifications and user requirements will result in spatial and specification increases but this is managed by the project board. The 1-50 repeatable rooms exercise has been completed and offered some surety over the level of room area reduction possible within the scheme and the Project Board maintain a Value Log of potential reductions to manage this during the evolution of the scheme.
Large No. of Stakeholders	A significant number of stakeholders are involved given the significance of the hospital to the States of Jersey. Whilst many have been engaged during the early planning process, on an ongoing basis with the Design Engagement and HIA process it is likely that others will influence the project as it develops.
Funding Availability	Funding remains outside the scope of the project but controlled by the Project SRO. Project costs will be met fully by the States of Jersey with the project only proceeding once ministerial funding approval has been secured. On this basis the funding risk is considered to be low given that the project will not otherwise progress. There is a risk of contractor costing once involved being higher than investment funding budget. This will lead to value engineering exercises which may impact on programme and fees but which will retain a viable project.
Project Management Team	The SOJ project management team is experienced at delivering major capital projects but has not previously delivered a hospital. Limited project team experience is offset by specialist advisor expertise engaged to both support project delivery and tender development. Recent appointments of Construction Director, Clinical Peer Group, Clinical Leadership and Full time Advisor resource significantly bolster this team.
Poor Project Intelligence	Site investigation is ongoing, topographical survey and LIDAR surveys are complete alongside technical engagements and assessments required for outline planning application

Not currently applicable	
Environment	
Public Relations	The project is eagerly anticipated by many stakeholders many of whom will be pleased with the redevelopment of the existing hospital site. Others however in close proximity to the new hospital and its construction site will need to be supported by a sympathetic approach by the States to minimise the impact wherever possible.
Site Characteristics	The site is not considered to be hampered by any unusual site conditions. However, ground contamination is NOT expected and early desktop surveys suggest radon gas protection will be required. Flooding is not considered to be a concern. Detailed assessments for flood risk, transport, heritage and environmental impacts have been completed and mitigation measures identified which are being incorporated into the design.
Permits / Consents / Approvals	Early planning consultation has been completed through formal engagement with States of Jersey Planning officers. Feedback to date has been generally positive whilst recognising some constraints such as building height The conclusion of a series of consultations with the Jersey Architecture Commission, the Planning Department, the Statutory Authorities and Public (as part of the EIA) has created a greater level of understanding and consent to the scheme Planning permission(s) for the enabling projects will be sought by separate Jersey based design teams but the process will be managed and overseen by the Project Team
Not currently applicable	
External Influences	
Political	Notwithstanding the need to secure Planning Consent, this option has a good deal of political and public support given that the site is already home to the General Hospital. This is expected to continue as the detail of the proposal is developed. A planning inquiry date has been set and the public responses to date monitored by the project team. The acquisition of Neighbouring properties will be managed sensitively by the States to avoid any loss of this support
Economic	The current economic recovery within the UK and to a lesser extent within Europe appears to have tailed off with a slight fall in inflationary pressure being recently recorded.
Legislation / Regulations	The project remains exposed to regulatory change both in the UK and UK NHS as well as within the States of Jersey. However, the relatively short programme will assist in maintaining the extent foreseeability of this risk.
Technology	Whilst Healthcare technology continues to develop many of the solutions anticipated by the project remain mainstream within the UK NHS.
Not currently applicable	