

**The States of Jersey
Hospital Pre-Feasibility
Spatial Assessment Project**

**Jersey General Hospital
Strategic Outline Case
Appendices**

May 2013

Notice

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Appendix 1: Strategic Case

Appendix 1. Strategic Case

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1.1 Organisational overview

01. Jersey General Hospital is situated in St. Helier and operates as the only acute hospital facility on the island. The population of Jersey at the end of 2011 has been determined as being approximately 98,000 (as per the 2011 Census information published in September 2012 with assumptions made about future demographic projections); the acute hospital therefore occupies a reasonably unique position in that it serves a population which is considerably smaller than a comparable general hospital would serve on the mainland.
02. Jersey provides a model of hospital services that would not normally be considered viable for a population of around 100,000; however, the island's relative isolation means that providing a significant level of acute and emergency services locally is essential, along with the requirement to provide packages of social care for people with complex needs.
03. The overriding issues that therefore affect Jersey General Hospital are those which are found in other island situations where acute provision is required to support a comparatively small population, such issues include:
 - Diseconomies of scale that need to be accepted
 - The extent to which specialisation occurs at the hospital, issues concerning adequate training and experience for on-island clinical staff and the extent to which some activity is provided externally
 - The overall range of services that are provided by the hospital, both now and in the future
 - The requirement for a Health and Social Services system that is fully integrated in the future, a requirement that is just as critical to efficient and effective health care provision within a small island population as it is for a larger population, not constrained by physical boundaries
04. Jersey is therefore, of necessity, providing a model of hospital services that would, in most modern health systems, be provided for a population of at least over 250,000 and it is in this island context that the Strategic Outline Case considers the options for re-development as part of this crucial strategic issue.
05. The majority of acute care is provided free at the point of delivery by the States to the people of Jersey. Almost 50% of the population has private health insurance, but the coverage of the various insurance policies varies and many people still opt for State provided care.
06. Jersey General Hospital, in the main population centre of St Helier, provides a comprehensive range of acute services, including emergency care and Emergency Admissions Unit, medical and surgical specialties, anaesthetics, ITU, obstetrics, paediatrics, diagnostics and therapies as well as a range of elective and ambulatory care services. Its facilities include:
 - 245 beds in total

- 4 main theatres (one is a ring-fenced emergency theatre)
 - 2 day case theatres
 - 2 endoscopy theatres
 - 1 maternity theatre
07. Most acute services are provided at Jersey General Hospital, with some care provided at Overdale Hospital, Westmount, for example diabetes, rehabilitation and outpatient clinics. Patients with emergency or urgent care needs currently present to the A&E Department or GP Out of Hours (OOH) service within the hospital or to GPs through appointments or home visits in non-hospital settings.
08. The table on the following page provides an overview of the hospital's services.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 1: Strategic Case

Date: 14th October 2013

Operational Support services	Clinical Support Services	Theatres and Anaesthetics	Unscheduled Care	In Patients	Ambulatory Care	Women and Children	Ambulatory Care Services	Estates and Facilities Services
Bed management Appointments Medical records Coding and information Jersey Emergency Transfer Service Travel office Medical secretaries MDT co-ordination and Telmedicine UK contracts	Radiology Pathology Pharmacy Clinical investigations Dietetics and therapies Audiology	Anaesthetics Main Theatres Day surgery and endoscopy unit Sterile services	Emergency department Emergency Admissions Unit Night team GP co-operative Day care unit	Trauma & Orthopaedics General surgery Bartlett - medicine Plemont - medicine Corbiere - medicine Gynaecology Intensive Treatment Unit Rehabilitation Pre-assessment Private patients	Main outpatients Community ENT Rheumatology Ophthalmology Diabetes Dental Pain clinic Oncology Neurology Renal Urology & urodynamics Dermatology Sexual health Cardiology	Maternity ARU Special Care Baby Unit Paediatrics	Frontline Control PTS ASU	Strategic estates Engineering Maintenance Catering Housekeeping Portering Supplies

Figure 1.1: Hospital services

09. Services are under increasing pressure as demand increases and capacity in terms of facilities and workforce is stretched. For example, projected increases in inpatient spells and requirements for hospital beds means that current capacity will be unable to meet these demands, particularly in general medicine; there is a high level of A&E attendance, with many patients assessed as suitable for treatment in primary care; the birth rate and the demand for children's services is growing and the pressure on diagnostic and clinical support services continues unabated.
10. Such pressures are by no means unique to Jersey but the historic over-reliance on a medicalised and institutional model of care with poorly developed community services and limited choice exacerbate these phenomena and lead to system un-sustainability as the demand pressures increase further.
11. Furthermore, the current quality and age of the large majority of the current acute hospital means that the physical facilities from which care is delivered falls well below current space and quality standards for the efficient and effective provision of modern care. The new hospital will respond to a number of pressing issues which fall into two key groups:
- 1 - Responding to the strategic imperatives of developing an integrated care service on the island where the acute and community based health services are designed to complement and support an integrated strategy. In particular to this project, that the acute hospital is designed to meet future demand whilst ensuring that the strategy of caring for people in the community, wherever safe and appropriate to do so, is developed and upheld
 - 2 - Responding to the very obvious physical requirements for a new hospital to address the following headline issues with the current hospital
 - Inefficient and aging design - poor clinical adjacencies
 - Poor space standards - compromising effective care delivery
 - Lack of flexibility
 - Poor separation of clinical and non clinical flows
 - Poor gender separation and lack of privacy
 - Poor supporting mechanical and engineering infrastructure
12. The overarching objective of this Strategic Outline Case, and of the White Paper "Caring for each other, Caring for Ourselves", is to ensure that acute services remains safe, sustainable and affordable in the long term. The re-provision of the acute hospital is considered an integral element of these three objectives, but also, and very importantly, this re-provision is only considered viable by investing in essential community based services delivered by a broader range of health professionals. The development of an integrated care model where there is mutual support for the services provided both within the acute and community setting is vital to the success and longer term viability of the acute hospital re-provision.

1.1.1 The overarching strategy

13. The Health and Social Services White Paper 'Caring for each other, Caring for ourselves' published in May 2012 sets out the vision of an integrated care model and a programme of change that will meet the challenges facing the Island's health and social care services in the next 10 years. This builds on the Green Paper of the same name, on the analysis and stakeholder engagement that underpinned it and on the outcome of public consultation in August 2011 that clearly supported the need for change, recognising that 'doing nothing is not an option'.
14. Taken together the initiatives outlined in the White Paper represent a coherent plan for the next 10 years to ensure that Jersey's health and social services are safe, sustainable and affordable, and that the integrated care model is an exemplar of 'island health and social care' to which other island communities will aspire. Those 10 years of transition, of which the development of a new general hospital plays a fundamental role, will in turn lay the foundations of a first class service to meet the needs of Islanders for years to come.
15. The White Paper acknowledges the central role that acute services, in particular the General Hospital, will play during this 10 year period and for the foreseeable future and recognises the need to ensure that hospital services remain viable and sustainable. It also recognises the urgent need for significant investment in the hospital's buildings, many of which are no longer fit for purpose, and in critical infrastructure such as patient information systems that will support effective patient care and strong clinical governance.
16. This investment will be needed in any approach to service redesign adopted, this Strategic Outline Case identifies the preferred site solution which could take either the form of a major programme of redesign and refurbishment or a full replacement on the Existing General Hospital Site or at another location. During this time however, the hospital's services will not stand still during the 10 year transitional period - some issues will still need to be addressed urgently and investment is required to do so.
17. The 'transition plan' focuses on the next 10 years, to December 2021, rather than the 30 year period of the Green Paper, recognising that the growing pressures demand more urgent change, that a new hospital is needed within 10 years and that detailed planning for longer periods becomes increasingly speculative. The outline strategy for acute services forms part of the transition plan and will also inform the hospital development as the project develops.

1.2 Service strategies

18. There are presently a number of service strategies which are considered priorities within the White Paper and are currently being developed, these are summarised as follows (Source - Caring for Each Other, Caring for Ourselves).

1.2.1 Services for children

19. Development of a fully integrated service for children and their families including:
- Developing a common assessment framework with services “wrapped around” the family
 - Early identification of children and families most at risk
 - Increased use of foster care and less emphasis on residential care
 - Closer collaboration and engagement between H&SS and other States departments, the voluntary sector and other independent advisory groups
 - Rapid access to primary care
 - Focusing on parenting skills where risks and gaps are identified and also of life and school readiness programmes
 - Earlier interventions during pregnancy and ongoing support in earlier years
20. This strategy interacts with the hospital redevelopment with regard to its aim to reduce obstetric complications and also to reduce the number of inappropriate emergency department attendances. In addition such a strategy has the potential to reduce the demand for higher cost reactive services in the future through earlier intervention, some of these services being supplied through the general hospital.

1.2.2 Services to encourage healthy lifestyles

21. Focusing on alcohol misuse and enhanced community based detox and relapse prevention facilities with potential impacts on the future use of in-patient services by those suffering from alcohol related illness. Also there are potential impacts regarding attendances at the emergency department during the evening, particularly at weekends.
22. The prevention and intervention approach initiated for alcohol misuse will also be developed for sexual health and other services.
23. The development of healthy lifestyles will promote behaviour to encourage such, consequently reductions in hospital related admissions relating to alcohol are anticipated, however such reductions will have no material effect on future bed requirements as a potential 5% reduction in numbers of admissions and their associated lengths of stay do not translate into a significant bed reduction.

1.2.3 Services for adults with mental health issues

24. Personalisation through individual care packages which are appropriate and relevant to individual needs.
25. Improved access to psychological therapies will be introduced within the community comprising a range of self help facilities through to evidence based psychological interventions.
26. Integrated community multi-disciplinary teams for adults will be introduced with enhanced services offered for individuals with dual diagnoses.
27. Care will be provided outside of a residential setting wherever possible, in-patient services will be provided for patients with severe and enduring mental health needs including the provision of a low/medium secure unit

1.2.4 Services for older adults

28. A key component of the White Paper is the introduction of service strategies to enhance community based services and home care to create a direct impact on the level of secondary acute care that needs to be provided within the general hospital.
29. In particular, incidences where discharge from hospital is delayed or not possible due to inadequate community based services will be addressed allowing a patient to be cared for in the phases of the cycle of care when a patient does not required clinical intervention within a hospital setting.
30. In addition strategies to avoid admissions through ongoing community based monitoring and intervention including COPD, heart disease and diabetes will present an opportunity to provide some relief to the significant burden that presents particularly during the winter months. Enhanced community based services are planned to deliver the following in particular relation to the acute hospital:
 - 24 hour nursing and domiciliary support
 - Community based consultant physician services
 - Rapid response teams to arrange home based care packages as part of admissions avoidance protocols or providing home based care packages to facilitate discharge from hospital
 - Intensive home based support packages where required - termed a "virtual ward"
 - In-reach and hospital liaison, planning to support hospital discharge and reduce lengths of stay
 - Provision of step up and step down facilities to avoid unnecessary admissions to and delays in discharge from hospital where home care is not a viable option

- Intensive reablement teams to facilitate independence and more rapid discharge from hospital
- Specialist palliative care teams to support the end of life care pathway away from a hospital environment where available and applicable
- Assistive technology (telehealth and telecare) to enable patients to be cared for in their own homes to a greater extent
- Development of clear end of life care pathways for individuals judged to be within the last 12 months of their life

31. The above strategies are both contingent and dependent on full integration with the acute strategy. The effective implementation of the above strategies over the next ten years is absolutely required to allow and determine the future size of the acute hospital, particularly in terms of bed numbers. The pre-feasibility study makes the assumption that these strategies (which have most effect on the elderly adult population but apply to all adults) are effective and are in place so that the working assumption that the bed complement within the new hospital can reflect this shift to community based care for those patients affected.

1.2.5 Sustaining acute services

32. Section 2.1 of the Strategic Outline Case document identifies a number of issues concerning the current acute hospital which the White Paper also summarises.
33. The pre-feasibility study seeks to address many of these issues in determining the potential size and scale of the new hospital, taking into account the continual rise in demand and the potential changes in capacity required as a result of the implementation of the strategic objectives outlined above.

1.2.6 Links with other providers

34. It is not possible to provide all services on the Island, in particular highly specialist or complex tertiary services or where greater critical mass is needed to maintain skills or to justify significant capital expenditure. Links with other providers are therefore essential and some arrangements with UK providers are in place, although in many cases these need to be formalised to a greater extent with explicit quality standards and clinical outcomes specified.
35. Opportunities for closer collaboration with colleagues in Guernsey are also being considered although these are more likely to be in areas of elective care rather than the core acute services required on a 24/7 basis. The relatively low activity levels also make it imperative that Jersey clinicians are linked to peers and to other providers in clinical networks to ensure that skills are maintained in line with Royal College guidelines.

-
36. The size of the population and the incidence of medical and surgical conditions on the Island limit the number of certain procedures that consultants are required to perform and therefore it is difficult to maintain necessary levels of competency and accreditation. Arrangements are in place with NHS providers in the UK for patients to be treated off island. 90% of UK based activity is carried out by 9 providers, with c.45% provided by University Hospital Southampton NHS Foundation Trust. Patients typically return to Jersey for their follow up care, which has posed challenges when discharge information has not been sent through in time, especially when complications arise.
37. The table below shows a specialty breakdown of patients travelling to the UK during 2010, this analysis was based on a lengthy and specific project that trawled data from a number of sources, this pre-feasibility study utilises the results of this study but notes that the OBC phase should include an updated specific analysis of off island activity as part of a future strategy to consolidate providers, develop closer working relationships and improved information flows and derive contractual efficiencies.

Figure 1.2: Off-Island Inpatient Spells 2010

Specialty Group	Activity (Spells)	Percentage
Clinical Oncology	196	17
Cardiac and Thoracic Surgery	174	15
Paediatrics	149	13
General Surgery	146	13
Urology	93	8
Neurology/Neurosurgery	59	5
Trauma and Orthopaedics/Spinal	58	5
Ophthalmology	40	4
General Medicine	13	1
Other	223	19
Total	1151	100

Source: Trevor Myers Associates, UK Mainland Health Activities Report, October 2010

38. There is strong evidence from the 2010 based analysis that the promotion of specific strategic partnerships with a smaller number of off island providers would produce a range of benefits for H&SS on Jersey. These include:
- Improved costs based on a clear contract, specifically negotiated and incorporating economies of scale and certainty offered by the favoured provider.
 - Specific information requirements included with the contracted activity to enhance an imperfect system of activity recording at present.
 - Clarity of the route of provision for services, both in terms of onwards referral by clinicians and also clarity for the patient
39. The current system is not subject to clear pathways of onwards referral, a range of providers are currently used when one provider could be considered preferred. Consequently information regards actual off island activity and its associated costs are not comprehensively gathered leading to uncertainty regarding actual off island activity, its cost and the inability to forge more structured strategic partnerships.

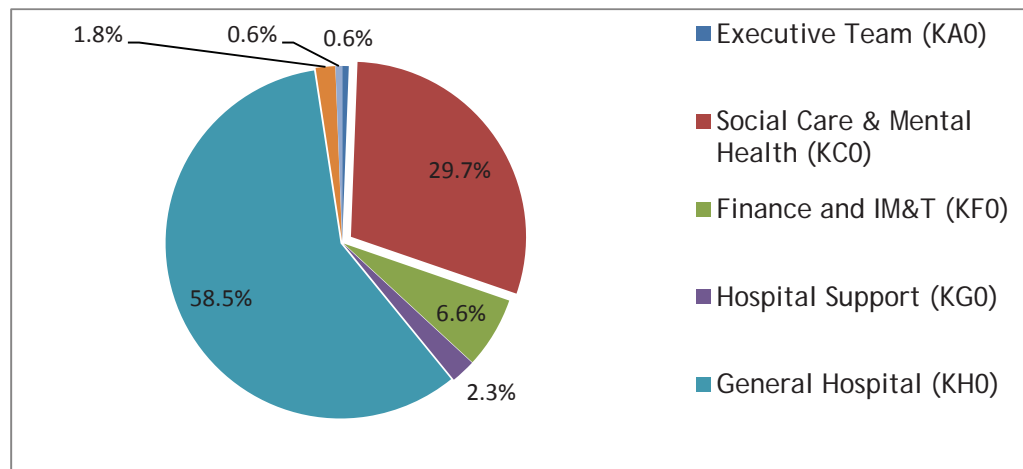
40. An ongoing case for the structuring of strategic partnerships is occurring within oncology and Renal services, such a structured approach is considered important as part of the strategic imperatives considered within this acute services review. Specific partners need to be chosen who are deemed the most favourable in terms of convenience of travel, clinical outcomes and cost. A reduced number of providers should be selected to provide the full range of specialist secondary and tertiary services currently required for the island's inhabitants.
41. In addition to establishing robust contracts for activity that must necessarily occur off island, similar additional contracts can be developed to cater for critical masses of patients where additional visiting expertise from the mainland can prove cost efficient and effective in terms of patient care in a more convenient manner to the patient. Off island activity will always be most appropriate in a number of specialised cases; however where care can be delivered in a safe and effective manner on island, the efficiency of doing so should be investigated as part of a separate exercise and incorporated as part of the acute services strategy.
42. The OBC phase of the hospital re-development project will incorporate the effects of any further progress regarding the consolidation of off island activity. Such consolidation will result in views being taken regarding potential repatriation of work onto the island (within the new hospital) and that, in the future, some activity may further be viewed as best undertaken off island.
43. The net effect of repatriation onto the island and distribution of activity off island is not known at this time as detailed discussion and negotiation with off island providers needs to occur, however even a net inwards migration of work of 25% of the total off island activity would result in an additional bed requirement of c. 3 beds (assuming an average length of stay for elective patients of 3.8 days as at present). At this point, such a variation is not considered material to the overall sizing of the hospital.

1.2.7 Workforce issues

44. The ability to attract and retain high calibre staff across a broad range of disciplines and grades is fundamental to the delivery of a sustainable service. There is a particular focus on consultant staff, given that almost 60% of the medical workforce will be due for retirement over the coming decade, but there is also a need to attract many other groups of staff needed to provide services 24 hours a day and to build a wider range of community based services across the Island.
45. Some services are heavily reliant on very small numbers of individuals and have relatively low patient numbers, which increases their vulnerability and makes it difficult to achieve and maintain levels of specialist skills in a way that clearly demonstrates the quality of performance and outcomes.

46. Health services across Jersey employ more than 3,000 staff (around 2,661 Full-Time Equivalents (FTEs)). This includes staff in the General Hospital and in community and primary health and social services.
47. A breakdown by division is shown below.

Figure 1.3: 2012 Budgeted WTEs by Division (June 2012)



48. This shows that the majority of staff engaged in healthcare delivery across the Island are employed at the hospital, although nearly 30% of staff are employed in social and mental health care.
49. Improved physical conditions for acute clinical services will have a beneficial (if unquantifiable) effect on future recruitment and retention of all staff.

1.2.8 Clinical governance

50. The ability to demonstrate clinical quality through appropriate systems of data collection and analysis, audit, peer review and accreditation is an essential part of ensuring the sustainability of a modern healthcare system. Lack of investment in comprehensive, integrated IT systems with full interconnectivity, along with support personnel to maintain and develop those systems and to extract and analyse patient data poses a significant risk to the sustainability of the Island's services both now and in the long term. The White Paper identifies investment in IT infrastructure, data and informatics as key enablers of change and the sustainability of the system.

1.2.9 Costs

51. The nature of Jersey as an island health economy with a small population inevitably creates diseconomies in terms of the unit costs of delivering hospital and social care and providing the facilities required to support a viable acute services model. Many of the core services have significant fixed costs with an absolute minimum requirement in facilities

and staff needed to provide a 24/7 service, despite relatively low levels of activity. This is compounded by the high cost of living and the cost of land and buildings that leads to a 'Jersey premium' which further increases unit costs.

52. Some of this additional cost premium is unavoidable but the current staff/grade mix and the existing system of care in which there are few alternatives to hospital admission and little development of intermediate care to support safe, timely discharge of patients contribute to this cost burden on the hospital service.

1.3 In-patient pre-feasibility modelling and analysis

1.3.1 Introduction

53. As part of the hospital pre-feasibility study, all key hospital activity has been subjected to further modelling to ascertain the potential key functional content required under a range of demographic and performance scenarios. The purpose of this modelling is to develop a range of capacity requirements to ensure that the future sites identified for further investigation are capable of containing a new hospital facility and to also inform the high level capital costing exercise which will form an integral part of the pre-feasibility study.

1.3.2 Base data

54. Base In-Patient activity data has been sourced from a two different sources for a three period of analysis (using HASF and Trakcare data systems). Actual bed occupancy has been derived from all three years of data, with the latest 12 months of information (June 2011 to June 2012 - see below) from the updated Trakcare system being used as the key driver for establishing future activity and (for the purposes of this exercise) consequential bed requirements.
55. The hospital changed its patient Administration System (PAS) in June 2011. Three years of data have been collected to analyses trends and performance. The years ending 10th June 2010 and 2011 have been sourced from the HASF system previously in use by the hospital and the base data for the year ending 10th June 2012 (latest activity available to the project) have been sourced from the new PAS system (Trakcare).

1.3.3 Process undertaken

56. Three years of activity have been analysed and presented to identify actual bed requirements on a day by day basis within the hospital. Such analysis helps to identify a number of issues for future consideration and in particular identifies the number of beds required at present to avoid the hospital operating in moments of bed crises across the full range of bed based services provided.

57. Once actual activity profiles are analysed, the model identifies the latest effects of demographic change available to the project and applies demographic changes to the base activity.
58. The assumptions contained within the Bailiwick Model developed to inform the White Paper, have also been reviewed regarding the principles contained therein and a pre-feasibility model has been created to specifically apply a range of performance criteria to the detailed analysis of the latest 2011/2012 activity.
59. The resulting future activity levels are modelled using a base year (set as the year ending June 2012, but allowing for any issues identified concerning the suitability of this year as a base year from which to project forward) and projected forward each year for 10 years and then for years 15 and 20 and 29 (29 years hence from the base data being 2040, the farthest extrapolation of the demographic projections). Projections to this range are subject to significant change, such a long demographic timeline whilst fraught with uncertainty at this time is important to understand as a new hospital has to be conceived with the intention of being able to satisfy future demand to that extent.
60. The activity projections are then converted using a series of performance, occupancy and utilisation assumptions into key functional content (beds). This key functional content then drives the rapid high level Schedule of Accommodation (SoA) exercise to identify the current required accommodation needs of the department under current guidance notes and also future accommodation needs.
61. The performance assumptions at this stage are to be validated through detailed discussion and development of clinical pathways to support and drive the final performance assumptions for the new hospital and new model of care. These discussions and formation of clinical pathway development groups has not occurred at this stage, the assumptions and consequential range of bed requirements are therefore untested and designed purely to inform the range of hospital sizes and associated costs as part of the pre-feasibility study, they must not be viewed as a defined clinical position.

1.3.4 In-patient activity analysis and review

62. The first aspect of the modelling exercise is analysis of current activity. Jersey Hospital is the only acute hospital on the island and incorporates public and private beds. Overall impressions of the hospital are that there are significant capacity and sizing issues associated with the current layout of wards. Space standards across the hospital are universally identified as sub standard and even a redevelopment of bed accommodation will result in a significant increase in area requirements. In addition the demographic challenges, particularly of an aging population and the consequential effects on bed based demand tempered by the development of community based clinical pathways to reduce the reliance on acute beds will both have a significant impact on bed requirements in some 30 years time.

63. This modelling exercise concerns identifying future bed requirements based on strategic assumptions, the current bed complement is useful to understand from a starting position as a point of reference only but should not form the basis of the modelling. For the purposes of information, the bed complement at the time of the KPMG technical paper that informed the White Paper is reproduced below:

Figure 1.4: Bed complement

Medicine	69	}	87 Medical
EAU	16		
Neutropenic	2		
Surgery	72	}	81 Surgical
ITU	9		
Paediatric	15	}	23 Paediatric
SCBU	8		
Obstetrics	26	}	26 Maternity
Private	28	}	28 Private
			<hr/> 245 <hr/>

64. It is understood that continuing changes are occurring within the hospital which will affect the total number of beds at the margins. In addition, the bed numbers identified at that time serve as identification of current bed numbers. It is understood that the actual usage of the beds is constantly adjusted in an attempt to satisfy the demand within the hospital at any one time, for example a significant proportion of private beds are currently utilised to support the emergency bed requirements within the hospital therefore the total number of beds of 245 are treated as a whole with the exception of obstetric beds, paediatrics and Special Care Baby Unit cots.

1.3.5 Bed occupancy

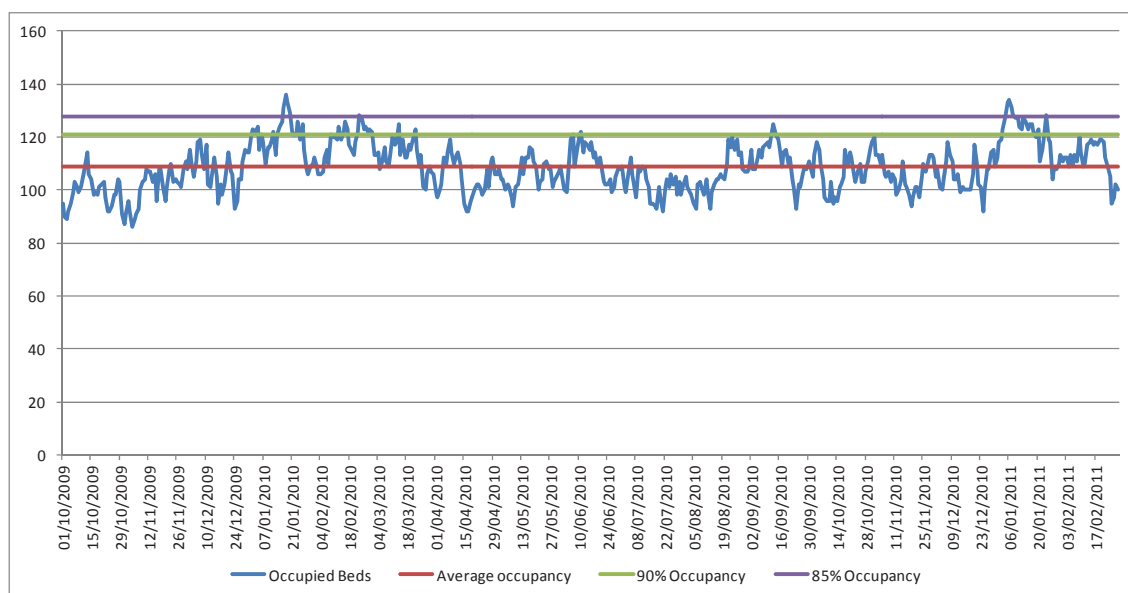
1.3.5.1 HASF data analysis

65. Firstly, data from the two year period from June 2009 to June 2011 from the old HASF system has been analysed. There are a number of technical data issues with the old data collection system that do not allow as full and detailed analysis of the activity from that period as would be ideal. Consequently the analysis of activity from that period is separated from the subsequent analysis of the most recent 12 months of activity. It is still useful to analyse and understand the range and fluctuation in demand that occurs throughout the year. This modelling exercise however focuses on the most recent 12 months of data in terms of actual bed modelling.

1.3.5.2 Medical activity

66. The following figure identifies actual beds occupied on a day by day basis between October 2009 and February 2011, fluctuations occur as expected but the overall fluctuation is not particularly large, so much that setting an occupancy assumption of 85% does ensure that adequate headroom can be created in the system with only a very few days in crisis, note though that this analysis is not designed to identify total bed requirements, only to confirm the occupancy assumptions that can be used when anticipating future bed requirements.
67. Occupancy assumptions are set based on admission and discharge dates; effectively they identify at a strategic level the midnight bed count. It should be highlighted from the outset that such a methodology is used when utilising discharge and admission dates from the relevant patient administration system, it is recognised that a bed count based on overnight occupancy does not take into account the potential additional requirements for beds that can occur during the day time. The model makes the assumption that part of changing working practice will include the ability to ensure that such overlaps of bed demand are minimised in the future, however for the present, such overlaps do occur and make a significant contribution to the overall medical bed requirements at this time. The additional beds required to cover additional demand during the day has been included within the forward modelling process to identify current demand.
68. The following figure identifies adult medical bed requirements excluding mental health related specialties and private patients.

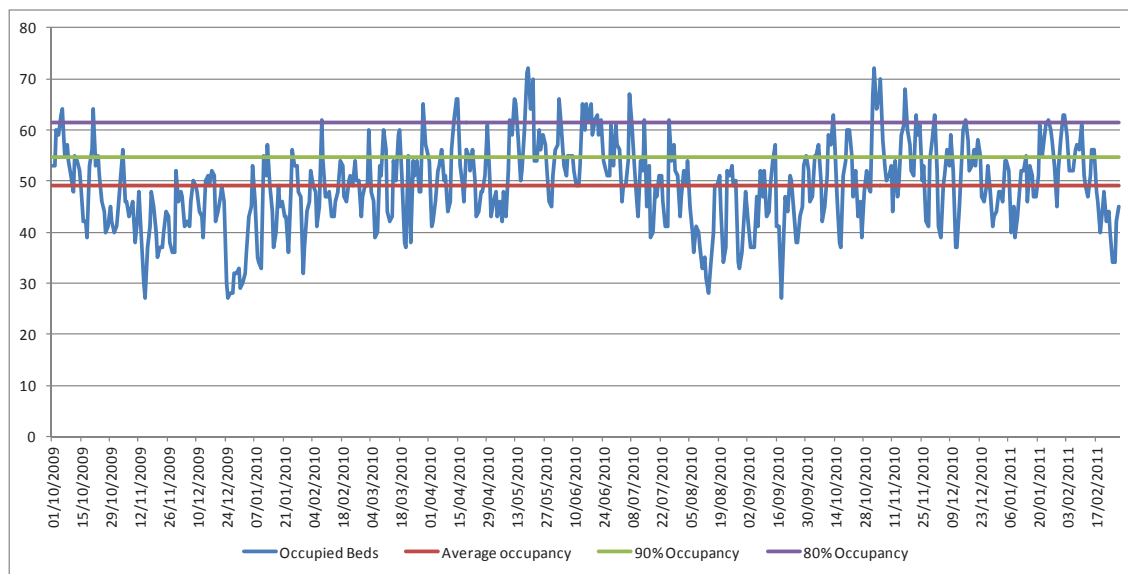
Figure 1.5: Medical bed requirements October 2009 to February 2011



1.3.5.3 Surgical activity

69. A similar analysis of surgical specialty bed requirements is summarised in Figure 1.6 below. A more significant variation is seen within surgical activity, reflecting the greater proportion of elective activity within surgical specialties both during a yearly cycle and also reflecting the current nature of elective activity within the hospital and the fact that much activity is based on a 5 day working week, the weekly variation is clearly identified below.
70. A key consideration for the future will be whether the hospital is able to spread work over a 7 day week to flatten out peaks and troughs in bed demand, thus reducing overall bed requirements in the future. Such a shift should be the subject of careful consideration as to its feasibility in terms of staffing structures and rotas, the In-Patient model is capable of adjusting for such a shift.

Figure 1.6: Surgical bed requirements October 2009 to February 2011



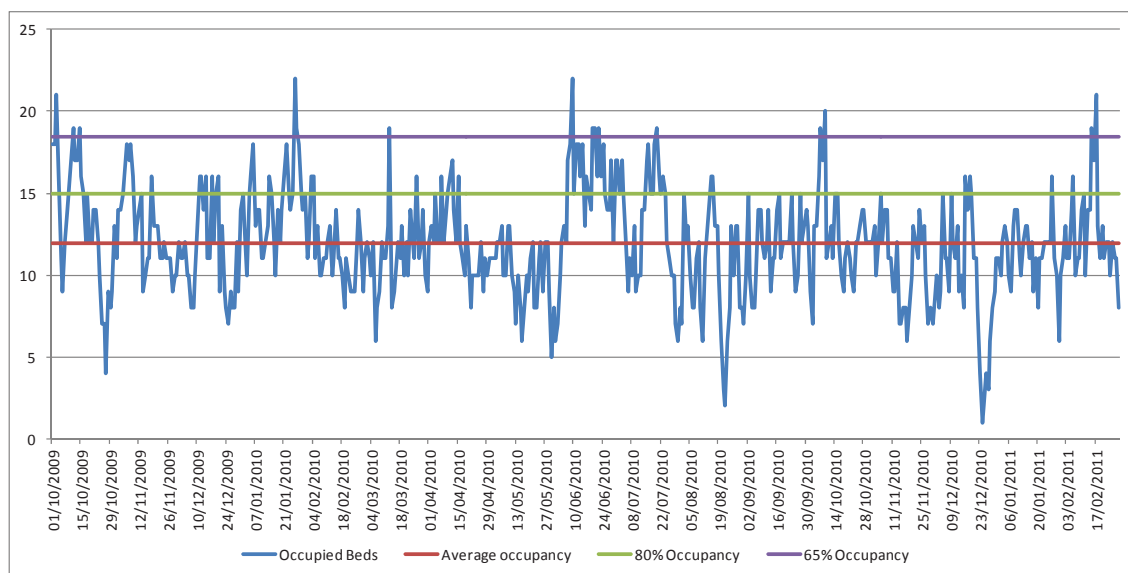
71. At present even an 80% occupancy assumption leaves a number of days in crisis during the time period analysed, a shift to a 7 day working week (the basis of future bed assumptions from 2021 onwards within the model) would reduce the fluctuation in bed requirements for surgical activity.

1.3.5.4 Obstetric activity

72. Figure 1.7 identifies bed demand for obstetric activity. Demand peaks and troughs follow a recognised pattern of greater fluctuation, a standard occupancy assumption used within capacity planning of 65% allows for the large majority of obstetric demand to be serviced without incurring many days in crisis.

73. It is proposed that an occupancy assumption of 65% be used to allow sufficient headroom for this specialty, although the small but required nature of this service may well entail a lower bed occupancy assumption to ensure critical crises in bed availability do not occur. Further detailed modelling as part of the next detailed planning phase of obstetric activity including clarity of the relationship between birthing/delivery rooms and in-patient beds will provide further detail of the final numbers of delivery rooms and beds.
74. For space costing purposes at this stage, a 65% occupancy assumption is recommended, identifying a current requirement for c. 18 obstetric beds (single rooms en suite) plus delivery suites. There are currently 20 obstetric beds (plus 1 occasional use bed when not in use as a pool room) and 5 delivery rooms. Proposed changes of use mean that 6 beds are being converted into an Early Pregnancy Assessment Unit plus a 2 room birthing centre. Such a change in use concurs partly with the above analysis of bed use. A net reduction of 4 beds per the current plans means that the current unit will have a maximum of 17 beds available within the ward and 5 delivery rooms plus 2 birthing rooms.

Figure 1.7: Obstetric bed requirements October 2009 to February 2011

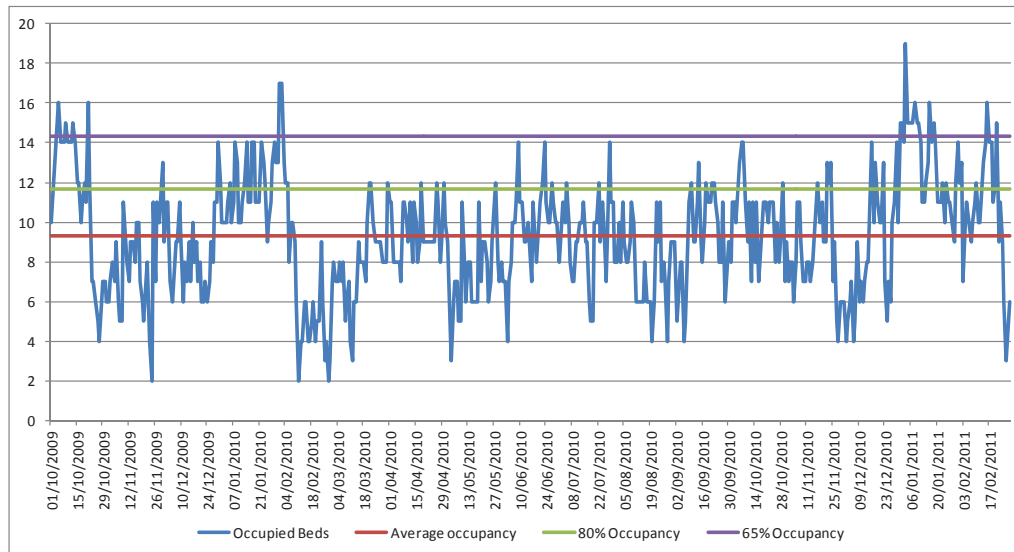


1.3.5.5 Paediatric activity

75. Figure 1.8 identifies paediatric activity and its variable demand both on a weekly and seasonal basis (note the increased demand occurring in January). An occupancy assumption of 65% again allows sufficient headroom to avoid most days in crisis. This equates to c. 15 beds (which is the same number as noted in the KPMG summary of current beds). Again it should be recognised that such an occupancy assumption is capable of meeting demand fluctuations only when the bed complement is structured to allow for flexibility in use by all relevant patients (e.g. single rooms to allow for flexible use by

different genders and age groups). The current paediatric ward does not allow for such flexible use to modern space or design standards.

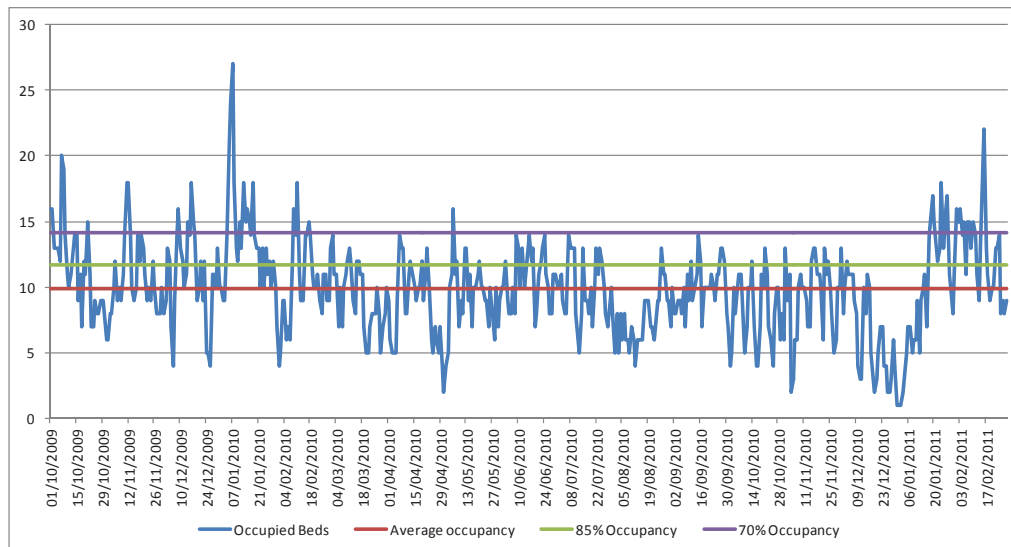
Figure 1.8: Paediatric bed requirements October 2009 to February 2011



1.3.5.6 Private patients

76. Private patient activity and bed demand again shows significant variation on a weekly basis and also specific peaks in demand. A low occupancy assumption is required at present to allow enough headroom to cater for the regular peaks and troughs in demand. The current bed complement for private patients is 28 beds, currently demand runs at a general peak of c. 15-20 beds per day.
77. Private patient activity of course is concerned as much with commercial issues as current demand. Assuming that the HASF system has correctly identified all private patient activity within the base data, future capacity requirements should be based on current activity levels plus any adjustment for future increases in private work carried on within a new hospital where the attraction of modern facilities and space standards will increase demand.
78. It is recommended that private patient future capacity be the subject of a more detailed commercial survey as to future total capacity requirements. The design of future beds can ensure that private and public beds can be used in a more flexible manner when designed as individual rooms and where ward sizes (or bed groupings) can be flexed. There is evidence both anecdotally and empirically that private patient activity would increase given improved facilities, therefore for the purposes of this pre feasibility study, a 28 bedded ward is assumed to be a sustainable as part of the new hospital development - subject to further phased work and ratification.

Figure 1.9: Private patient bed requirements October 2009 to February 2011



1.3.6 Updated review of The Bailiwick Model

79. The Bailiwick model identifies a number of elements as part of a potential reduction in acute in-patient beds within a future hospital: these comprise:

1.3.6.1 Removing procedures of low clinical value

80. Indicative reductions in General surgery activity have been applied on a yearly basis totalling a 10% reduction in activity as follows:

2012 - 3%, 2013 - 1%, 2014 - 2%, 2015 - 2%, 2016 - 2%

81. The above activity reductions have been applied to general surgery activity and a consequential reduction in bed days has been identified using the average length of stay for general surgery at the time of KPMG modelling. Whilst there may well be procedures of low clinical value occurring, the total 10% reduction is at this stage considered a proxy figure and the implementation of the identification of such procedures is underway at present. In addition, application of an average length of stay to the removal of such low value procedures may well overestimate the potential reduction in bed days as a result of such removals.

82. The current Average Length of Stay (LOS) for elective general Surgery is c. 2.7 days and the number of spells in 2011/12 was 825, hence the potential reduction in bed days is 224 equivalent to c. 1 bed. It is quite feasible that the average length of stay for procedures with limited clinical value may well be less than the average length of stay and as such a 1 bed reduction should be considered a maximum potential reduction and not material for the purposes of this feasibility study.

1.3.6.2 The effect of “Step Up” / “Step Down” capacity on general medical beds

83. The Green Paper identified the effect of the introduction of integrated multi-disciplinary teams delivering step up and step down care and the potential effects of such care delivery in reducing the number of acute beds required through either potential admissions avoided or through reduced lengths of stay through more effective and efficient discharge procedures to community based care provision.
84. The Bailiwick Model identified a continual reduction in activity relating to general medicine at the rate of 2% per annum from 2014 until 2040, a total activity reduction of 54% by 2040. The Bailiwick Model identified that such a reduction in acute bed requirements would be enabled through the introduction of 70 virtual beds and a 20 bed step up / step down unit at Overdale Hospital.
85. The current OBC estimates a reduction of 24 acute beds by 2015 and the number of planned step up / step down beds is currently planned at 6 beds (those 6 beds comprising 2 at Sandybrooks Nursing home, 2 at The Limes and 2 at Samares Ward). In addition some further freeing up of the beds identified at Sandybrooks and The Limes could be achieved by purchasing 4 beds in the private sector.
86. At present, there is an understandable fluctuation in the development of such intermediate care plans, the pre feasibility study does not seek to ensure complete resolution to the developing nature of intermediate care on the island but to establish a range of acute bed requirements based on a range of intermediate care scenarios over a 30 year time frame.

1.3.6.3 End of life care

87. The green paper identified at the time that there were c. 350 deaths in hospital per annum. The average length of stay for a patient who died in hospital was 41 days. A potential estimate of the reduction in acute bed requirements by introducing greater hospice care in the community was calculated at a 50% shift to hospice at home care (173 patients), the equivalent of 20 beds.
88. This pre feasibility study does not include a review of end of life care within the scope of the project but identification of patients who may be better cared for outside of an acute hospital setting is a significant part of the UK Government end of life care strategy. It is important therefore to identify the potential effect of building a robust community based hospice care strategy that will ensure that those who have entered the end of life phase can be cared for wherever possible in their place of choice (which for the main part is seldom in an acute hospital environment).
89. The key issue here is that in identifying the actual element of the length of stay (on average) for those patients dying in hospital that could be subject to hospice at home style care, not all the 41 days average length of stay would be subject to such a change of location. Typically an admission would follow an acute episode, following which is may be

deemed appropriate for palliative care or a shift direct to hospice based care to be most appropriate for the patient.

1.3.7 The pre-feasibility model of care approach

90. The Pre Feasibility model that has been developed focuses on the fact that for both elective and emergency activity, an increasing proportion of patients can and should be more appropriately cared for outside of an acute hospital ward. The intermediate care environment into which they can be transferred is one which focuses on active rehabilitation and mobilisation either within a “Step Up / Step Down” environment or another domiciliary environment such as a care home or the patient’s own home where care can be appropriately given.
91. Such a model is based on a model of care which is being introduced nationally in the UK, where it is recognised that for a significant proportion of patients, clinical care is intensively provided in an acute hospital environment, that intensive clinical care giving way rapidly to proactive rehabilitation which can in many cases be performed away from an acute ward.
92. The following figure which was included as an example in Atkins’ bid documentation illustrates this approach, one which is being actively pursued in other parts of the UK, this approach being directly taken from the Gwent Clinical Futures Model, currently being implemented and also the Powys Teaching Health Board Strategic Plan.

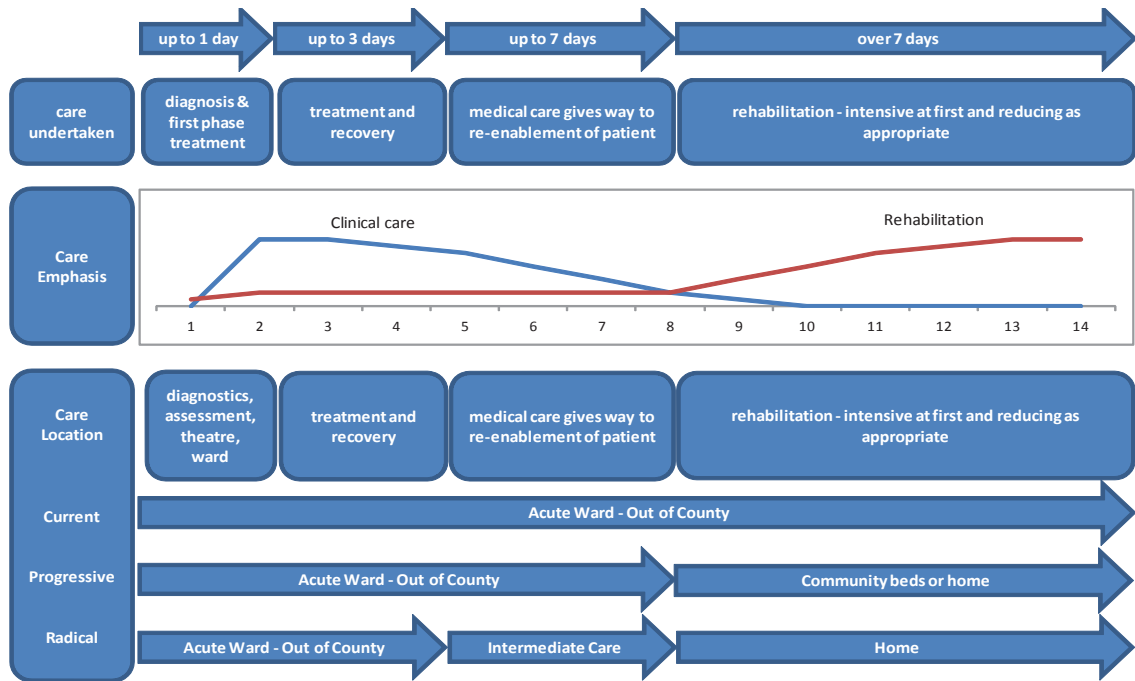


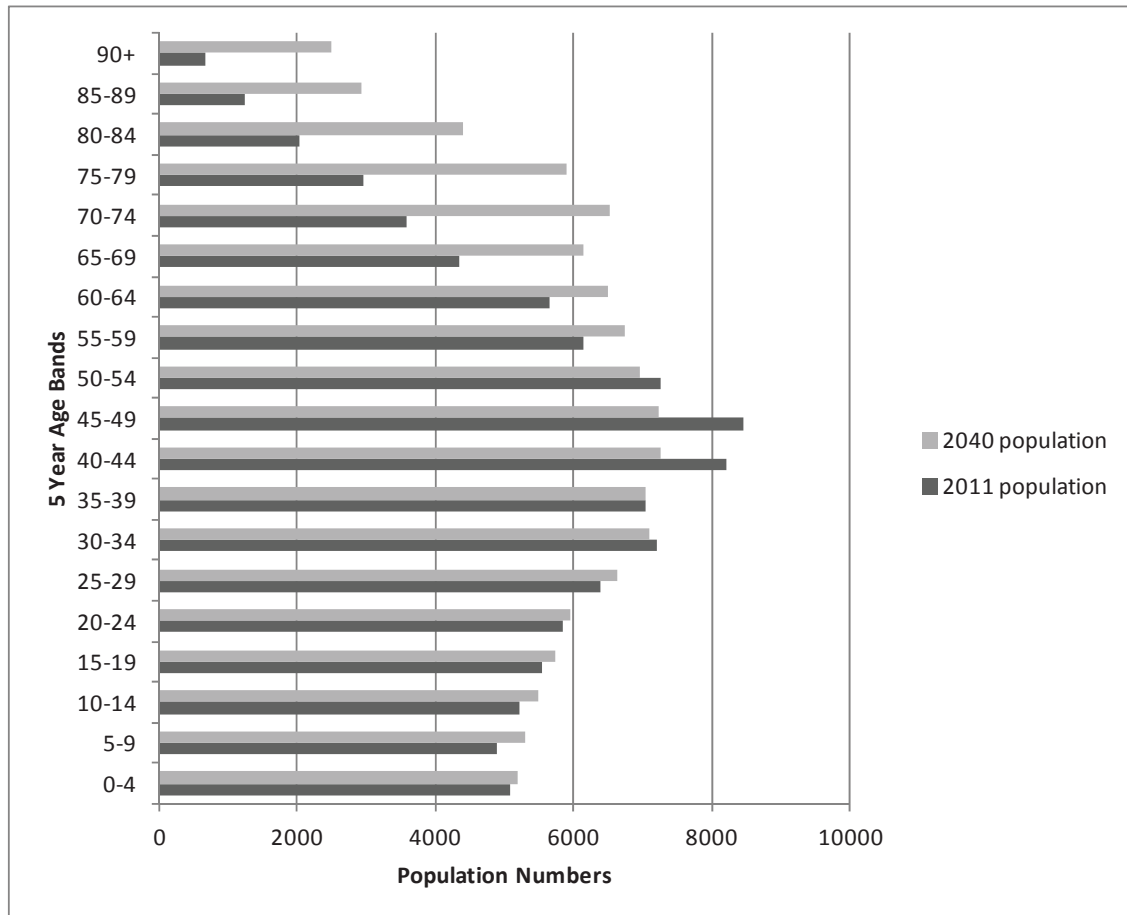
Figure 1. 10: Diagram of a typical acute care path

94. Such a set of assumptions that are contained within the pre feasibility model identify that as current acute lengths of stay increase, the ability and indeed appropriateness to transfer those patients to a non acute hospital environment increases assuming that appropriate investment in such services has been made). The longer the length of stay, the less is the likelihood that a patient is receiving or requires acute clinical care.
95. Such an assertion applies to all patients, be they surgical, medical or indeed approaching the end of their lives. For the purposes of the pre feasibility study, a range of performance scenarios relating to the points and proportions of patients who could be more appropriately either rehabilitated or cared for away from an acute ward environment allows a range of potential overall bed requirements to be developed.
96. This paper will return to the modelling assumptions in future sections.

1.3.8 The effect of demography

97. The model firstly identifies the effects of demography based on States of Jersey statistics regarding the future numbers of residents on the island split by age band and gender. There are a range of demographic projections available as outputs from the statistical department. The scenarios differ in the assumptions utilised regarding the net inwards migration of residents and their families. The KPMG model utilises the +150 Heads of Household assumption, which relates to a net inwards migration of 150 households each year (i.e. 150 individuals together with assumptions regarding the number of family/dependents - 1.2 dependents per head) that individual would be accompanied by.
98. The pre feasibility model initially incorporated the +150 HH scenario as per the technical document, and has subsequently included the latest demographic and migration assumptions produced by the States Statistics Department in September 2012. The updated assumptions are based again on a set of migration assumptions appended to overall demographic predictions, based this time on an overall range of net inwards migration assumptions. The net inwards migration assumption of +350 persons (as opposed to heads of household with additional family members) is accepted as a reasonable planning assumption by the Statistics Unit. Additionally, sensitivities based on a net nil migration and +700 persons migration have also been modelled for comparison - the results of the sensitivities are included in the results section below.
99. A key consideration is the proportional increase, especially after 20 years, of the elderly population on the island, this age group (above 70 years old) constitutes the highest occupants of beds within the hospital and when demographic projections are applied to actual activity and lengths of stay for those patients, the effect on future demand is very large. The following figure identifies the increase in population by age group.

Figure 1.11: Population projections for Jersey by age group



100. A number of age groups remain relatively static over the 30 year period; however all age groups over 70 show a marked increase in population. The population between 75 and 89 more than doubles to 2040 whereas the population over 90 grows from 669 to 2,469 (an increase of c. 370%) which has a significant effect on overall bed requirements when modelled through.

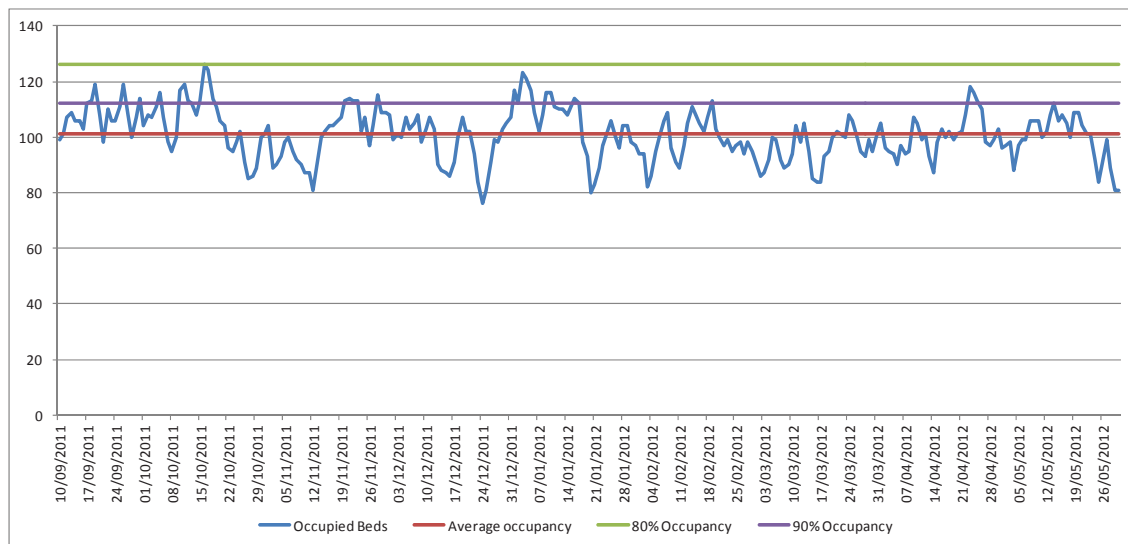
1.3.9 Analysis of the latest 12 months of activity

101. More detailed analysis of the latest activity based on the Trakcare administration system has been carried out and is summarised in graphs below. For the purposes of detailed pre feasibility modelling, activity is aggregated in a different manner to that from the HASF data above by identifying key patient groups that require differing modelling methodologies. In addition, the Trakcare system allows great specificity regarding the analysis and modelling of activity due to its improved classification of activity by specialty and site.

1.3.9.1 Adult emergency activity

102. The following figure plots actual daily bed occupancy for all acute emergency activity (medical and surgical). Whilst some degree of variation in emergency activity is always expected, the variation extracted from the base data shows that an occupancy assumption of 80% allows enough headroom to avoid days in crisis for the 10 months of actual daily activity plotted.
103. The occupancy assumption of 80% has therefore been used in the forward modelling to identify the future bed requirements for the hospital. An 80% occupancy assumption should allow for the hospital to meet the peaks and troughs of demand throughout the year but it should also be noted here that the analysis is based on overnight demand and does not take into account the pressures during the day when patients are admitted before others are discharged, this requires additional beds to be available to meet these daytime peaks and additional beds to service this demand are included within the model.
104. Note also that the modelling assumptions at this time assume that in the future (from 2021 onwards) that such daytime overlaps can be minimised through more effective discharge procedures during the day (most often regards transport, administration, availability of records and availability of resource to which each patient is discharged) to reduce such overlaps. At this point the inherent occupancy assumptions included within the model will suffice in terms of providing adequate headroom for daytime peaks.

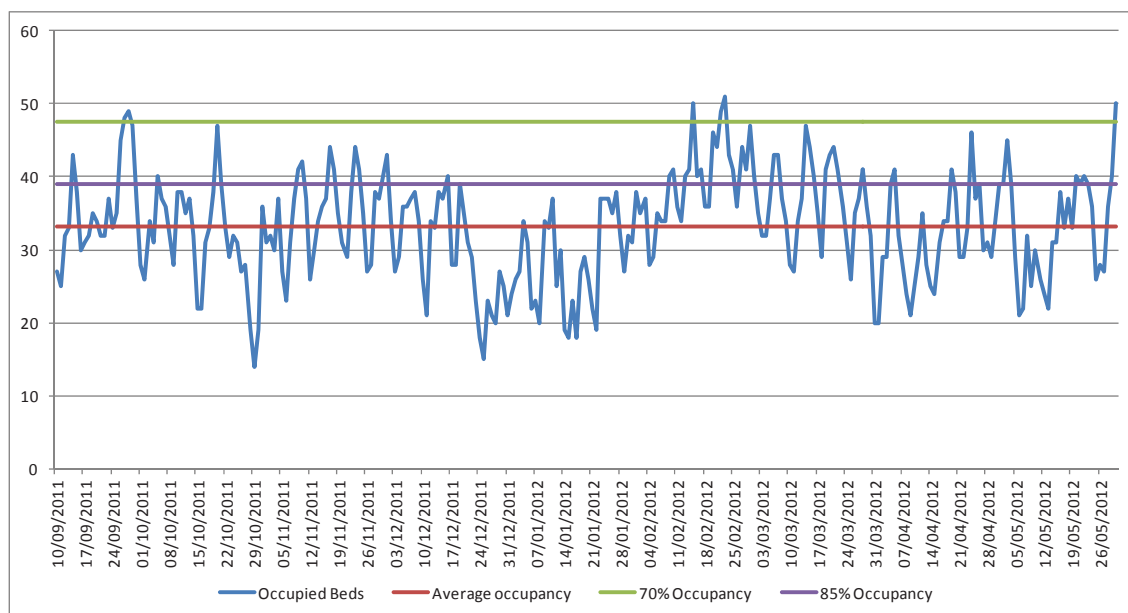
Figure 1.12: Adult emergency occupied beds September 2011 to June 2012



1.3.9.2 Adult elective activity

105. Figure 1.13 identifies the continuing variation as seen within the (predominantly elective) surgical activity per the previous HASF data. Again weekly fluctuations as well as fluctuations within the year are identified. An 80% occupancy assumption has currently been applied to adult elective activity within the model but it should be noted that in order to achieve minimal bed crises in elective capacity in the future, clinical redesign of services to a 7 day week would be required, along with associated organisational and staffing challenges that this would produce.
106. Current weekly fluctuations in demand suggest that c. 48 beds are required to avoid days in crisis, in future such fluctuations should be managed away to avoid days where there is underutilisation of bed space for elective work. To this end a common planning assumption of 90% occupancy is used for the medium and high performance scenarios utilised within the future bed modelling. 90% occupancy assumptions can only be achieved on the basis of a 7 day working week for elective activity.

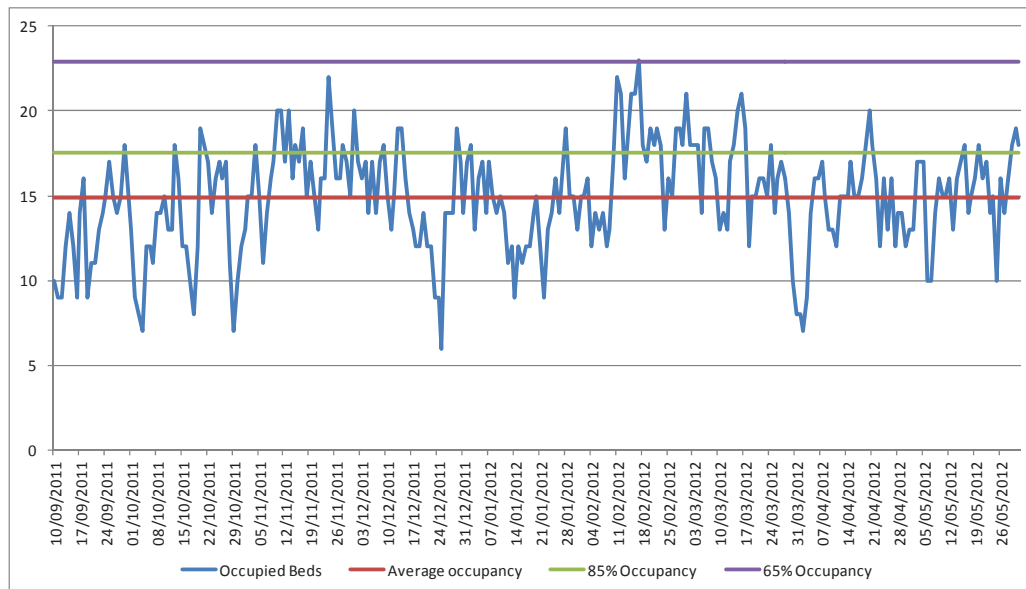
Figure 1.13: Adult elective occupied beds September 2011 to June 2012



1.3.9.3 Obstetric activity

107. Significant variation in daily bed demand is a universal trait of obstetric activity and is potentially more pronounced in a hospital where there are a comparatively low number of births per annum (c. 1,200 p.a.). A standard 65% occupancy assumption is the most common clinical planning assumption for such activity within the U.K. and the following figure demonstrates that such headroom does allow for bed crises to be avoided.

Figure 1.14: Obstetric occupied beds September 2011 to June 2012



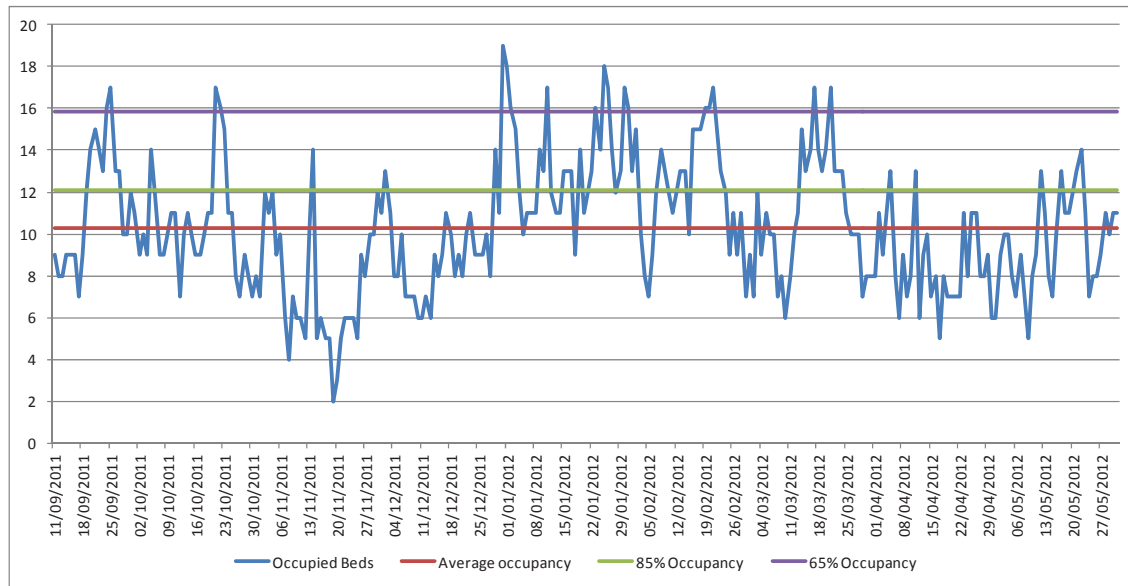
108. Actual activity in the most recent 12 months has increased compared to 2009-2011 with a consequential increase in bed requirements, at present 23 beds would be required based on a 65% occupancy assumption although some of these bed requirements can be incorporated into the delivery room functional content, dependent on the future clinical pathways adopted (e.g. mothers remaining in the delivery room for their duration of the post partum stay).
109. It appears that the current demographic information is not necessarily identifying the actual increase in deliveries occurring each year. A below the line adjustment to identify such an increase is included within the final bed results - assuming a continued increase for 5 years at 5% then level with demography after that.

1.3.9.4 Paediatrics

110. Paediatric capacity requirements are also commonly set to 65% occupancy levels to avoid bed crises; it is noticeable that the latest 12 months of activity are more variable than that recorded for 2009-2011. Again, the smaller size of the unit compared to more standard size hospitals would lead to the conclusion that headroom assumptions need to reflect such a diseconomy of scale.
111. Current analysis would suggest that a bed requirement of 16-17 bed is required. Future bed requirements within the forward model are identified using the assumption of 7 day a week bed availability with a 65% occupancy assumption for emergency activity and a 90% occupancy assumption for elective activity. Again a 90% occupancy assumption for elective activity is only possible based on a shift to 7 day a week working and also (as is the case

with all the bed modelling), that beds are designed and provided in a flexible manner using single rooms to allow for the most efficient and effective use of those beds.

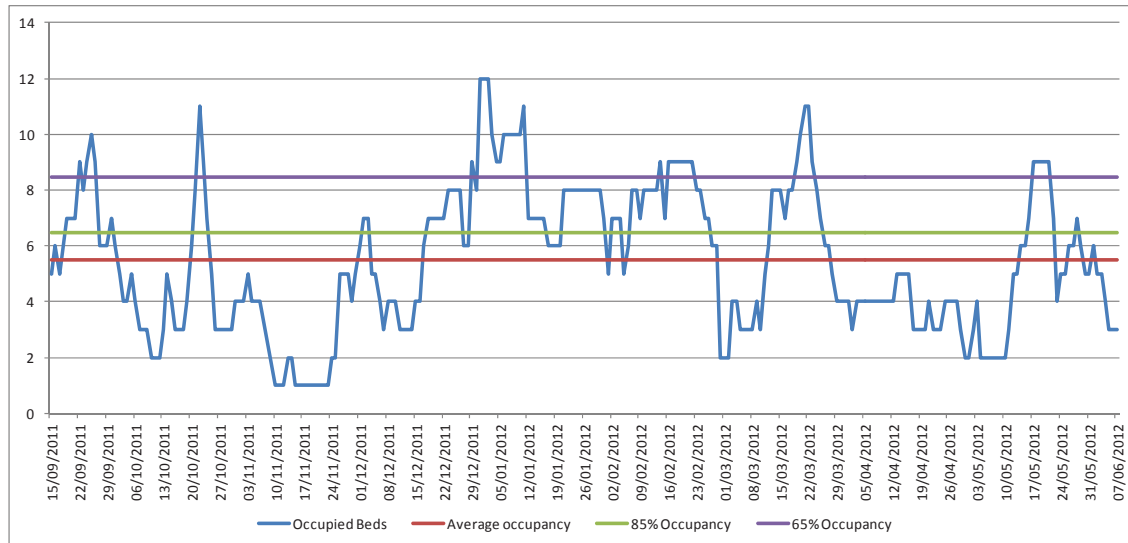
Figure 1.15: Paediatric occupied beds September 2011 to June 2012



1.3.9.5 Neonatal activity

112. Neonatal activity and demand is highly variable, a 65% occupancy assumption still leaves the unit with a number of days in crisis, which correlates with evidence received in conversation from unit management.
113. The Neonatal unit is currently funded for 6 Special Care Baby Unit cots with 2 Intensive Treatment Centre cots. Whilst 8 cots correlate with a 65% occupancy assumption, consideration should be given to some flexibility regarding future provision and whether diseconomies of scale lead to additional cot requirements. For the purposes of this pre-feasibility study an occupancy assumption of 65% has been used but it is understood that a lower occupancy assumption that may equate to up to 12 cots availability may well be required to be incorporated at OBC stage of this development.

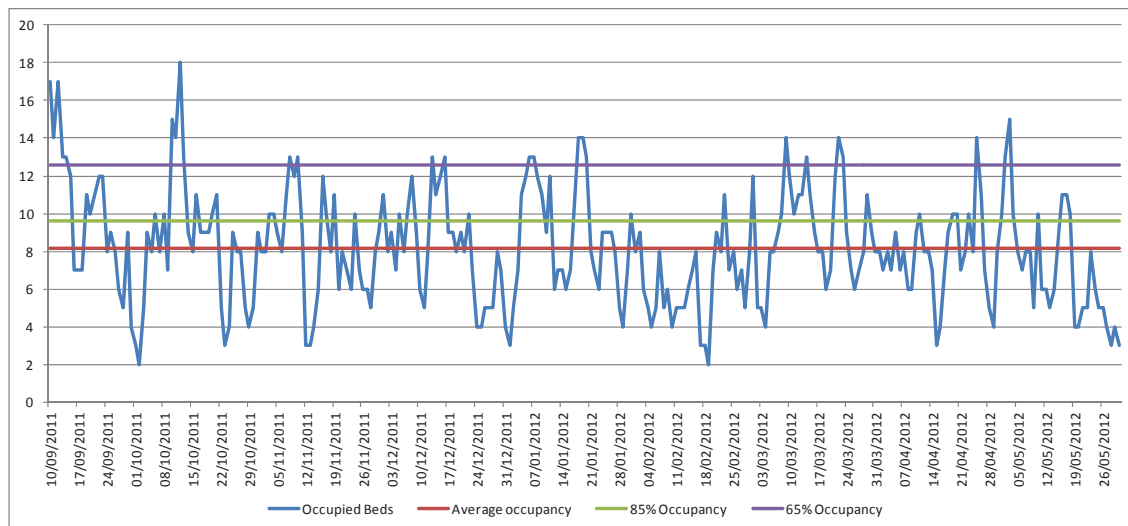
Figure 1.16: Neonatal occupied cots September 2011 to June 2012



1.3.9.6 Private patients

114. A similar pattern of variability is present in private patient activity for the latest 12 months of activity compared to the HASF based analysis. Similarly a commercial based approach to future sizing of the private patient bed requirements will be required. For the purposes of the pre-feasibility assessment, a private patient ward of between 24 and 28 beds is assumed as appropriate for sizing requirements.

Figure 1.17: Private patient occupied beds September 2011 to June 2012



1.3.10 Key modelling assumptions

1.3.10.1 Shift to day cases

115. Within the base data, a number of elective surgery spells are identified as in-patients when they currently have a length of stay of zero days, the model assumes that such spells will in the future be classified and treated as day cases, in addition the model is able to take account of and shift short stay elective surgical in patients to a day case environment in the future.
116. It is assumed that a proportion of short stay elective surgery in-patients can in the future be treated as days cases, the list of specialties included in such a transfer is as follows:

Figure 1.18: List of specialties to which a shift to day cases has been applied

Specialty	include in DC?
Accident and Emergency	no
Adult Mental Health	no
Alcohol and Drugs Service	no
Anaesthetics	no
Aubin Endoscopy Unit	no
Breast Surgery	yes
Cardiology	no
Clinical Haematology	no
Clinical Oncology	no
Clinical Physiology	no
Community Health Services Dental	no
Critical Care Medicine	no
Diabetic Medicine - Over	no
Diabetic Medicine - JGH	no
ED Gynae	no
ED Paeds	no
Emergency Department	no
Endocrinology - JGH	no
Endocrinology - Over	no
ENT	yes
Gastroenterology	yes
General Medicine - JGH	no
General Medicine - Over	no
General Surgery	yes
Geriatric Medicine - Eld	no
Gynaecological Oncology	no
Gynaecology	yes
Haematology	no
Main Theatre	yes
Maternity	no
Maternity Theatre	no
MaxilloFacial Surgery	yes
Medical Oncology	no
Mental Health Services For Older Adults	no
Neonatology	no
Nephrology - JGH	no
Obstetrics	no
Ophthalmology	yes
Oral Surgery	yes
Orthodontics	yes
Paediatric Diabetic Medicine	no
Paediatric Respiratory Medicine	no
Paediatric Trauma and Orthopaedics	no
Paediatrics - JGH	no
Pain Management - JGH	no
Plastic Surgery	yes
Public Health Medicine - GPOH	no
Rehabilitation	no
Respiratory Medicine	no
Trauma and Orthopaedics	yes
Urology - JGH	yes
Well Babies - JGH	no

The model also assumes that the following shifts will occur based on the original length of stay:

Figure 1.19: Lengths of stay to which a day case shift has been applied

LOS	Shift to DC
0	100%
1	60%
2	0%
3	0%

117. At present the model makes the assumption that all in patients with a current length of stay of 0 days and 60% of elective IP activity with a length of stay of 1 day will shift to a day case environment in the future, the effect of such a shift in terms of the activity it affects is summarised below:

Figure 1.20: Spells that could shift to a day case environment

Specialty	Initial Length of Stay				Total Additional Day Cases
	0	1	2	3	
Breast Surgery	18	10	0	0	28
ENT	176	185	0	0	361
Gastroenterology	101	7	0	0	108
General Surgery	239	221	0	0	460
Gynaecology	269	76	0	0	345
Main Theatre	10	2	0	0	12
MaxilloFacial Surgery	4	1	0	0	5
Ophthalmology	167	17	0	0	184
Oral Surgery	114	19	0	0	133
Plastic Surgery	38	13	0	0	51
Trauma and Orthopaedics	307	207	0	0	514
Urology - JGH	129	61	0	0	190
Grand Total	1572	820	0	0	2392

118. The potential effect in terms of reduced IP bed requirements, based on the above shift is c. 10 beds assuming a 5 day elective week and that zero LOS spells at present occupy 0.67 of a bed day. The model is capable of accepting alternative assumptions.

1.3.10.2 Establishing the potential range of shifts to intermediate care

119. The pre feasibility model identifies both elective and emergency activity by length of stay and applies the following assumptions to those longer lengths of stay according to the principles laid out earlier. Figure 1.22 summarises the assumptions contained within the model at this time. The model is capable of making assumptions at a detailed specialty level in addition to the summarised set of assumptions shown below.

120. A range of assumptions is available to be modelled, especially as this set of assumptions will have the greatest effect in terms of shifting bed days away from the acute environment towards community based care.
121. The Low scenario assumes do nothing different at this stage and therefore correlates with the original Scenario 1 per the technical paper of continuing as usual. The Medium and High scenarios make assumptions regarding the extent those patients who currently reside more than 7 days and beyond can be cared for in an alternative environment. The model assumes a graduation in terms of the extent that lengths of stay can be “trimmed” in this way, for example:
122. The medium trim scenario below identifies that a length of stay over 7 days can be trimmed by 10%, should a patient then stay over 14 days then a further 20% of patients can be trimmed, a further 30% over 21 days and a further 40% over 28 days. The cumulative effect for long length of stay patients is c. 50% reduction (so a patient currently staying 50 days would stay approximately 25 days). The cumulative effect for a patient staying 50 days under the high trim scenario is c. an 80% reduction in LOS.
123. This methodology of trimming longer lengths of stay is commonly used within the UK and has been applied to a number of geographical clinical service strategies including all regions within Wales, Scotland and a number of hospitals within England. Its key advantage is that the assumptions are grounded in the reality of the activity currently occurring within the hospital. Future clinical service development that will occur as part of the more detailed OBC production, incorporating the effects of service redesign can inform and amend the overarching assumptions contained within the model at the Strategic Outline Case phase. Discharge strategies when developed can then be reflected in the actual proportions of activity trimmed down to a specialty specific level. The assumptions detailed below have been used as start point assumptions for a range of major clinical service strategies and are therefore considered robust enough at this stage for the purposes of estimating additional bed requirements when combined with the additional bed pressures as a result of demographic changes.
124. The key effect of trimming activity in this manner is that those longer lengths of stay where it can be assumed that there is little clinical involvement in the patient’s recovery are targeted; shorter lengths of stay where clinical inputs will still be ongoing are trimmed to a lesser extent.

Figure 1.21: Summary of trim scenarios applied to IP lengths of stay

	Elective			Emergency		
	Low	Medium	High	Low	Medium	High
Less than 7 days	0%	0%	0%	0%	0%	0%
Over 7 Days	0%	10%	20%	0%	10%	20%
Over 14 Days	0%	20%	40%	0%	20%	40%
Over 21 Days	0%	30%	60%	0%	30%	60%
Over 28 Days	0%	40%	80%	0%	40%	80%

1.3.10.3 Identifying potential activity through a combined admissions unit

125. A development that is likely to occur prior to the construction of a new hospital will be the provision of a medical and surgical emergency admissions unit. The hospital currently has a medical assessment unit.
126. Such a unit will be designed to make assessment and decisions to admit to an acute ward or discharge more effective both for medical and surgical emergency admissions. The presence of a medical assessment unit suggests that some degree of efficiency has already occurred in the relevant medical specialties regarding a focus on assessment and more rapid diagnostics. As such the assumptions contained within the model regarding increased efficiency of diagnoses are greater for surgical specialties than for medical.
127. The model has been constructed to identify the effects of a new admissions unit once such a unit has been agreed as part of acute strategy and in particular the assumptions and processes regarding such a unit. For example, there would be an expectation that such a unit can reduce onward admissions into the hospital based on faster turnaround of test results and clearer protocols for discharge to an appropriate alternative care environment. In addition the efficiency of assessment and diagnosis within the admissions unit will be enhanced.
128. The protocols that will form part of the admissions unit are currently the subject of discussion, such as the maximum length of stay that a patient may stay within the admissions unit e.g. 48 hour or 72 hour protocols. Until such point as the admissions unit protocols are agreed and in place, the model incorporates bed numbers that could be within the admissions unit within the overall emergency bed numbers for the present. The capital costs associated with the provision of beds will be the same regardless of whether the bed provision is in an admissions unit or an acute ward.
129. The following figure identifies the type of assumptions (again these can be amended as the hospital development process continues) for both efficiency within the admissions unit (based on a % efficiency of time spent in the unit) and also identifies the potential for further admission into an acute ward to be avoided. Again a low (do nothing), medium and high scenario in terms of future performance has been modelled.
130. The unit has been assumed to be a 48 hour unit so it is assumed that all relevant activity will pass through the unit and will stay for up to 48 hours (subject to efficiencies then affecting that length of stay), after that either discharge or admission to an acute ward will occur. Such details to be agreed in the future.

Figure 1.22: Summary of admissions unit performance scenarios applied to emergencies

Specialty	Low AU		Medium AU		High AU	
	AU Efficiency	Admissions avoided	AU Efficiency	Admissions avoided	AU Efficiency	Admissions avoided
Accident and Emergency			5%	3%	10%	5%
Adult Mental Health						
Alcohol and Drugs Service						
Anaesthetics			5%	3%	10%	5%
Aubin Endoscopy Unit						
Breast Surgery			10%		20%	
Cardiology			5%	3%	10%	5%
Clinical Haematology			5%	3%	10%	5%
Clinical Oncology			5%	3%	10%	5%
Clinical Physiology						
Community Health Services Dental						
Critical Care Medicine						
Diabetic Medicine - Over						
Diabetic Medicine - JGH			5%	3%	10%	5%
ED Gynae			5%	3%	10%	5%
ED Paeds			5%	3%	10%	5%
Emergency Department			5%	3%	10%	5%
Endocrinology - JGH			5%	3%	10%	5%
Endocrinology - Over						
ENT			10%		20%	
Gastroenterology			5%	3%	10%	5%
General Medicine - JGH			5%	3%	10%	5%
General Medicine - Over						
General Surgery			10%		20%	
Geriatric Medicine - Eld			5%	3%	10%	5%
Gynaecological Oncology			5%	3%	10%	5%
Gynaecology			10%		20%	
Haematology			5%	3%	10%	5%
Main Theatre			10%		20%	
Maternity						
Maternity Theatre						
MaxilloFacial Surgery			10%		20%	
Medical Oncology			5%	3%	10%	5%
Mental Health Services For Older Adults						
Neonatology						
Nephrology - JGH			5%	3%	10%	5%
Obstetrics						
Ophthalmology			10%		20%	
Oral Surgery			10%		20%	
Orthodontics						
Paediatric Diabetic Medicine						
Paediatric Respiratory Medicine						
Paediatric Trauma and Orthopaedics						
Paediatrics - JGH						
Pain Management - JGH			10%		20%	
Plastic Surgery			10%		20%	
Public Health Medicine - GPOH						
Rehabilitation						
Respiratory Medicine			5%	3%	10%	5%
Trauma and Orthopaedics			10%		20%	
Urology - JGH			10%		20%	
Well Babies - JGH						

131. Example 1 - a surgical emergency patient currently staying 2 days would spend all their time in the new surgical admissions unit and be subject to a medium performance scenario of a 10% improvement in the efficiency of assessment whilst in the unit, therefore a 10% reduction in LOS and consequent bed days

132. Example 2 - the same surgical patient stays for 4 days; they would be subject to the same procedure and efficiencies in the admissions unit and then transferred to an acute ward. It is assumed that any surgical transfer to an acute ward is appropriate.
133. Example 3 - An emergency medical patient is admitted to hospital with a current length of stay of 6 days. They would spend 2 days less medium performance efficiency of 5% in the admissions unit and then transfer to an acute medical ward. The assumption being that at medium performance, 3% of subsequent admissions to the acute ward could be avoided.
134. Note that such an approach to admissions has a significant effect on the type of care received by a very large number of patients and can aid efficiency of service and outcome. The potential effect on bed numbers is small in comparison to trimming lengths of stay, which along with demographic changes constitute the key factors affecting future hospital sizing at this stage.
135. Modelling of potential bed requirements for an admissions unit up to 72 hours would result in a potential admissions unit of c. 24 beds based on current activity.

1.3.11 Identifying additional daytime pressures

136. The model assumes that in the future, planning and co-ordination procedures will enable rapid discharge on the day of discharge, avoiding daytime peaks in bed requirements as admissions occur throughout the day. The low performance scenario within the future capacity model continues to identify the effect of additional day time pressures whereas the medium and high scenarios assume that such day time pressures are alleviated due to the instigation of discharge procedures.
137. The efficient discharge of patients will be as a consequence of a range of measures put in place including:
- Rapid access to patient records to assist in the discharge procedure
 - Rapid access to drugs and prescriptions to assist discharge
 - Access to appropriate medical staff to ensure decisions to discharge are made early in the day
 - Access to appropriate care provision following discharge and that care provision is itself available from earlier in the day
 - The provision within the new hospital of a discharge co-ordination centre could also be considered to reduce beds utilised by those awaiting physical transfer out of the hospital.
138. An assessment of the current day time pressures faced by the hospital has been made based on the potential overlaps of all patients if the assumption is made that, on average, each patient occupies a bed for 0.5 of a day in addition to their length of stay. Such an assumption equates to an additional 11 beds required to satisfy demand. This peak demand has then been projected forward based on future activity levels as part of the low

performance scenario but assumed to be avoided as part of the medium and high performance scenarios.

1.3.12 Admissions avoidance strategies

139. In addition to trimming lengths of stay (which has the most significant effect on future bed numbers in terms of performance strategies), further strategies regarding admissions avoidance can be modelled. In the future the increased use of step up facilities and other community support strategies can reduce the number of admissions to hospital. Such strategies are to be considered and implemented as part of the transitional arrangements over the next ten years. For the purposes of modelling the following assumptions have been made:

- Admissions avoided are most often associated with those admissions with lower lengths of stay and therefore lower lengths of stay for emergency activity can act as an acceptable proxy for assessing episodes that can be avoided.
- As lengths of stay increase it is less likely that the admission could be avoided in the first place

140. The following figure identifies the assumptions current within the model for avoiding low length of stay admissions. The effect of such avoidance has a more significant effect on actual spells avoided but comparatively little effect on bed numbers (because the lengths of stay in question are low).

Figure 1.23: Admissions avoidance assumptions relating to low length of stay emergency activity

Length of Stay	performance Scenario	
	medium	high
0	30%	40%
1	20%	30%
2	10%	20%
3	5%	10%
4	5%	5%
5	0%	0%
6	0%	0%
7	0%	0%

141. The low performance scenario assumes no change in assumptions. The medium and high performance scenarios assume a % reduction in admissions through avoidance strategies, primarily associated with very short lengths of stay e.g. 0 and 1 day LOS, and then tailing off in terms of applicability as lengths of stay increase. Currently the model is set to allow for different proportions of admissions to be avoided up to a length of stay of 4 days.

142. Such seemingly significant reductions in admissions for these emergency patients only have an effect of 4 and 6 beds for the medium and high performance assumptions respectively in 2011, increasingly proportionately in future years.

1.3.13 Modelling summary outputs

143. Figure 1.24 summarises the number of spells occurring at Jersey hospital and predicts the number of spells after the effects of demography.
144. Spells are set to increase by c. 31% to 2040, particularly relevant and a result of the elderly demographic changes is the increase in emergency spells over this time period.

Figure 1.24: Summary of spells to 2040

Year	Elective Activity		Elective Activity Total	emergency activity		Grand Total	% Increase
	Day Case	In Patient		In Patient	emergency activity Total		
2011	9,675	15,943	25,618	7,677	7,677	33,295	0.0%
2012	9,778	16,156	25,934	7,769	7,769	33,703	1.2%
2013	9,876	16,353	26,229	7,864	7,864	34,093	2.4%
2014	9,976	16,545	26,520	7,961	7,961	34,482	3.6%
2015	10,072	16,717	26,789	8,060	8,060	34,849	4.7%
2016	10,174	16,887	27,061	8,160	8,160	35,221	5.8%
2017	10,274	17,038	27,312	8,259	8,259	35,571	6.8%
2018	10,380	17,236	27,617	8,376	8,376	35,993	8.1%
2019	10,489	17,441	27,929	8,493	8,493	36,422	9.4%
2020	10,590	17,633	28,222	8,613	8,613	36,835	10.6%
2021	10,702	17,854	28,556	8,740	8,740	37,296	12.0%
2026	11,226	18,897	30,123	9,433	9,433	39,556	18.8%
2031	11,712	19,994	31,705	10,152	10,152	41,857	25.7%
2040	12,403	21,555	33,959	11,492	11,492	45,451	36.5%
Change to 2040		28.2%	35.2%	32.6%	49.7%	49.7%	36.5%

1.3.14 In-patient utilisation assumptions

145. Occupancy assumptions by patient group have been described in the above analyses of occupied beds per day. The following summarises utilisation assumptions within the model.
- Admissions unit activity comprises all emergency surgical and medical activity that could pass through the admissions unit (excluding specialties where direct referral to a specific ward or department would occur e.g. paediatrics, obstetrics etc.). All patients would then stay in the admissions unit for up to 48 hours.
 - Elective activity which predominantly occurs in a 5 day week at present has been modelled to shift to a 7 day week by 2012 in the medium to high performance categories.
 - Day case activity has likewise been modelled to assume a 7 day week by 2031 in the medium and high performance categories.

- Both the above days per week utilisation assumptions are subject to ratification.

146. Figure 1.25 summarises the effects of all the above assumptions at this stage for the purposes of the pre feasibility study.

Figure 1.25: Summary of bed requirements to 2040

	2010 beds (actual)	Modelled Bed requirements based on 2011/12 Activity	Modelled bed projections to 2021			Modelled bed projections to 2031			Modelled bed projections to 2040		
			Scenario 1	Scenario 3 partial achievement	Scenario 3 full achievement	Scenario 1	Scenario 3 partial achievement	Scenario 3 full achievement	Scenario 1	Scenario 3 partial achievement	Scenario 3 full achievement
Zero Length Of Stay In Patient beds											
adult emergency		11	12	147	132	14	189	168	17	233	206
adult elective	168	131	163	23	21	210	27	25	260	31	28
Less admissions avoidance strategies		46	44	-4	-6	54	-5	-7	62	-5	-7
	168	188	219	166	147	278	212	186	340	259	227
Paediatrics beds	15	17	13	13	13	13	13	13	13	13	13
Neonatal cots	8	9	9	9	9	9	9	9	9	9	9
Obstetrics beds	26	23	29	29	29	29	29	29	29	29	29
Private beds	28	13	15	15	15	17	17	17	18	18	18
Total In Patient Beds	245	250	285	232	213	346	280	254	409	328	296
Adult day case beds/trolleys		13	16	18	18	17	20	20	18	20	20
Paed day case beds/trolleys		2	2	2	2	2	2	2	2	2	2
Total day case beds/trolleys	0	15	18	20	20	19	22	22	20	22	22

Elective In Patient Assumptions	5 day elective IP week - assuming a 70% occupancy requirement	7 day week for scenario 3 (significant and partial achievement) at 85% occupancy. 5 day week for scenario 1 at 70% occupancy	7 day week for scenario 3 (significant and partial achievement) at 85% occupancy. 5 day week for scenario 1 at 70% occupancy	7 day week for scenario 3 (significant and partial achievement) at 85% occupancy. 5 day week for scenario 1 at 70% occupancy
Day Case Assumptions	5 day adult DC week	5 day adult Day Case week for Scenario 1, 7 day week for Scenario 3 partial and significant achievement. Shift of short stay elective activity to day cases for Scenario 3 partial and significant achievement	5 day adult Day Case week for Scenario 1, 7 day week for Scenario 3 partial and significant achievement. Shift of short stay elective activity to day cases for Scenario 3 partial and significant achievement	5 day adult Day Case week for Scenario 1, 7 day week for Scenario 3 partial and significant achievement. Shift of short stay elective activity to day cases for Scenario 3 partial and significant achievement

Neonatal cots
Private Patients

Still leaves a number potential spikes of crisis (10 cots to resolve nearly all and 12 cots to resolve all)
Private patients subject to a commercial decision regarding future repatriation of private work current serviced elsewhere

1.3.14.1 Analysis

147. The analysis of current activity based on 2011 clearly demonstrates that there is considerable pressure on the current bed complement to cope with current demand. In addition the composition of the current bed stock does not allow the flexibility required of the modelled bed numbers to operate at those levels, both now and in the future. Re-provision of a flexible bed base (utilising single rooms) is an imperative and the occupancy and utilisation assumptions must be met in the future to allow sufficient capacity to cope with future demand. Key issues here are the use of single rooms and a shift towards 7 day a week operation for all elective beds. The model can identify future bed content if these assumptions are not instigated, but any future development would need to incorporate additional bed numbers if the planning assumptions are not met.
148. A 30 year timeframe is a long way to project future demographic changes on the island and is also subject to significant change in terms of unknown medical and technical changes and advances that could occur over that period. A 20 year timeframe allows a certain additional degree of comfort that projections are robust.

149. Excluding Day Case beds/trolleys at present, the hospital had a bed complement of c. 245 beds in 2010. Significant demographic pressures would require that bed complement to rise to 346 beds (an increase of 101 beds) by 2031 and 409 beds (an increase of 164 beds) by 2040 if strategies were not put in place to treat and care for patients in an alternative manner. In particular the key aspect of containing bed numbers and their associated support accommodation is to develop intermediate care services to allow patients to be discharged from hospital at an earlier stage than is currently possible.
150. Two further scenarios (medium and high) for tackling such a potential increase in acute bed demand are identified as described above. The key issue in terms of future sizing of the hospital is the trimming of long lengths of stay (for all patient groups).
151. By 2031 an additional 35 IP beds (totalling 280 beds) are required under the medium performance scenario and an additional 9 beds (totalling 254) under the high scenario. By 2040 an additional 83 beds (total 328 beds) would be required under the medium performance scenario and an additional 51 beds (total 296 beds) under the high performance scenario.
152. If the medium performance scenario is implemented by 2021 (requiring in place intermediate care strategies by that point) then the hospital would require a slightly fewer number of beds to that it has now, however these assumptions are based on the fact that those beds would be highly flexible and meeting current space and design standards, current bed stock would not allow such an assertion to be made.
153. The above bed numbers do also not take account of the potential reduced bed numbers to meet current private patient demand. Should a commercial decision be made to increase private patient beds based on future economic assessment of the viability of such, then the hospital could contain further private bed numbers in addition to those identified.

1.3.15 Sensitivities due to alternative migration scenarios

154. The bed summary relating to a net nil migration scenario and +700 net inwards migration are included in Figures 1.26 and 1.27 respectively.

Figure 1.26: Summary of bed requirements to 2040 net nil migration scenario

	2010 beds (actual)	Modelled Bed requirements based on 2011/12 Activity	Modelled bed projections to 2021			Modelled bed projections to 2031			Modelled bed projections to 2040		
			Scenario 1	Scenario 3 partial achievement	Scenario 3 full achievement	Scenario 1	Scenario 3 partial achievement	Scenario 3 full achievement	Scenario 1	Scenario 3 partial achievement	Scenario 3 full achievement
Zero Length Of Stay In Patient beds		11	12			14			17		
adult emergency		131	161	146	130	206	185	164	252	225	199
adult elective	168	46	43	22	20	52	27	24	60	30	27
Less admissions avoidance strategies				-4	-6		-5	-7		-5	-7
	168	188	217	164	145	273	207	181	329	250	219
Paediatrics beds	15	17	13	13	13	13	13	13	13	13	13
Neonatal cots	8	9	8	8	8	8	8	8	8	8	8
Obstetrics beds	26	23	29	29	29	29	29	29	29	29	29
Private beds	28	13	15	15	15	17	17	17	18	18	18
Total In Patient Beds	245	250	282	229	210	340	274	248	397	318	287
Adult day case beds/trolleys		13	16	18	18	17	20	20	18	20	20
Paed day case beds/trolleys		2	2	2	2	2	2	2	2	2	2
Total day case beds/trolleys	0	15	18	20	20	19	22	22	20	22	22

Figure 1.27: Summary of bed requirements to 2040 +700 migration scenario

	2010 beds (actual)	Modelled Bed requirements based on 2011/12 Activity	Modelled bed projections to 2021			Modelled bed projections to 2031			Modelled bed projections to 2040		
			Scenario 3 partial		Scenario 3 full	Scenario 3 partial		Scenario 3 full	Scenario 3 partial		Scenario 3 full
			Scenario 1	achievement	achievement	Scenario 1	achievement	achievement	Scenario 1	achievement	achievement
Zero Length Of Stay In Patient beds		11	12			14			17		
adult emergency	168	131	165	149	133	215	193	172	268	240	213
adult elective		46	45	23	21	55	28	26	65	33	29
Less admissions avoidance strategies				-4	-6		-5	-7		-5	-7
	168	188	221	168	148	284	216	190	350	268	235
Paediatrics beds	15	17	13	13	13	13	13	13	13	13	13
Neonatal cots	8	9	9	9	9	10	10	10	10	10	10
Obstetrics beds	26	23	29	29	29	29	29	29	29	29	29
Private beds	28	13	15	15	15	17	17	17	18	18	18
Total In Patient Beds	245	250	287	234	214	353	285	259	420	338	305
Adult day case beds/trolleys		13	16	18	18	17	20	20	18	20	20
Paed day case beds/trolleys		2	2	2	2	2	2	2	2	2	2
Total day case beds/trolleys	0	15	18	20	20	19	22	22	20	22	22

155. The potential increase in beds by 2040 under the +700 scenario, assuming full achievement of performance assumptions is 305 beds compared to 296 under the +350 scenario. The equivalent bed requirement under the net nil scenario is 287 beds. This variation (of 9 beds) in potential bed requirements is considered immaterial for the purposes of bed planning at this stage of the hospital development process.

1.3.16 Recommendation

156. A clear community/intermediate care strategy is required (as previously identified) to contain future acute hospital bed numbers within manageable proportions. However the extremely large effect of demographic change among the old and very old on the island will still override the effects of even the highest performance targets that have reasonably been set in other parts of the UK.
157. The new hospital needs to re-provide its current bed stock to current standards wherever possible to create flexibility of use as well as other benefits of doing so. In addition a development strategy for the new hospital should identify at the very least additional development or shell space to be built in to the new hospital to accommodate at least two additional 28 bedded wards as part of its design over and above re-providing in totality the existing number of beds within the current hospital.

1.4 Emergency Department modelling and analyses

1.4.1 Introduction

158. As part of the hospital pre-feasibility study, all key hospital activity has been subjected to further modelling to ascertain the potential key functional content required under a range of demographic and performance scenarios. The purpose of this modelling is to develop an range of capacity requirements to ensure that the future sites identified for further

investigation are capable of containing a new hospital facility and to also inform the high level capital costing exercise which will form an integral part of the pre-feasibility study.

1.4.2 Base data

159. Base emergency department activity data has been sourced from a number of different sources and compared to other benchmarks such as standardised performance data from other UK based hospitals and amalgamated hospital information.
160. The hospital changed its patient Administration System (PAS) in June 2011. Three years of data have been collected to analyse trends and performance. The years ending 10th June 2010 and 2011 have been sourced from the HASF system previously in use by the hospital and the base data for the year ending 10th June 2012 (latest activity available to the project) have been sourced from the new PAS system (Trakcare).

1.4.3 Process undertaken

161. Three years of activity have been analysed and presented to identify actual changes in activity and also to establish any particular issues concerning the profile of activity undertaken within the hospital. Such profiles may or may not be taken into account with regard to future service and performance assumptions. Some activity may be subject to changes within the model (e.g. the extent to which the three key modelling assumptions within the white paper concerning reductions in overall emergency department activity), there may be additional profiles of activity uncovered which could be a source of information and future action as well.
162. Once actual activity profiles are analysed, the model identifies the latest effects of demographic change available to the project and applies demographic changes to the base activity. In addition the model contains the functionality to allow for additional high changes to activity levels to allow for any further effects of activity change over and above demographic change. Such a high level change could be based on additional or reduced future activity levels.
163. The assumptions contained within the Bailiwick Model are then also replicated within the Pre-Feasibility Model, the Bailiwick Model is reviewed as part of a sense checking process and the model can also set the possible extents to which the Bailiwick Model assumptions materialise (from 100% achievement to 0%). In addition, any further issues and assumptions identified through activity analysis are also modelled (allowing for different scenarios in terms of achievement) at this time.
164. The resulting future activity levels are modelled using a base year (set as the year ending June 2012 but allowing for any issues identified concerning the suitability of this year as a base year from which to project forward) and projected forward each year for 10 years and then for years 15 and 20. Further projections are at this time not considered to give a robust conclusion.

165. The activity projections are then converted using a series of performance, occupancy and utilisation assumptions into key functional content (major/minor cubicles with additional assumptions for minor injuries and resus accommodation. This key functional content then drives the rapid high level Schedule of Accommodation (Schedule of Accommodation) exercise to identify the current required accommodation needs of the department under current guidance notes and also future accommodation needs.

1.4.4 Emergency activity analysis and departmental review

166. The first aspect of the modelling exercise is analysis of current activity. The emergency department at Jersey Hospital acts as the only such department on the island and incorporates majors, minors within A&E, a minor injuries department and resus facilities. Overall impressions of the department are that there are significant capacity and sizing issues associated with its current setting and layout.

167. The department current has the following comprising its key functional content;

1.4.4.1 Minor injuries

168. Minor Injuries - 3 chairs, 1 trolley and one small ophthalmic investigation cubicle. The minor injuries unit currently hosts planned ED clinics including a doctors' clinic (Mon-Fri 1 hour), nurse dressing clinic (7 days, 1 hour), nurse led clinics and soft tissue clinics (e.g. sports injuries).
169. The minor injuries department is open 8 am to 11.45 pm 7 days. Minor injuries outside of these hours are tended by the A&E majors department or when a particular piece of equipment is required not available in minor injuries department.

1.4.4.2 GP-led service

170. Currently the subject of expansion to cover planned GP led clinics and out of hours (6 pm to 11 pm) diversion away from main A&E service. 1 consult/exam room.

1.4.4.3 Plaster

171. Currently one plaster room/trolley

1.4.4.4 X-Ray

172. One plain film X-Ray room and one mobile x-ray machine

1.4.4.5 Majors

173. 6 bays for adults; 1 paediatric specific bay; 2 rooms

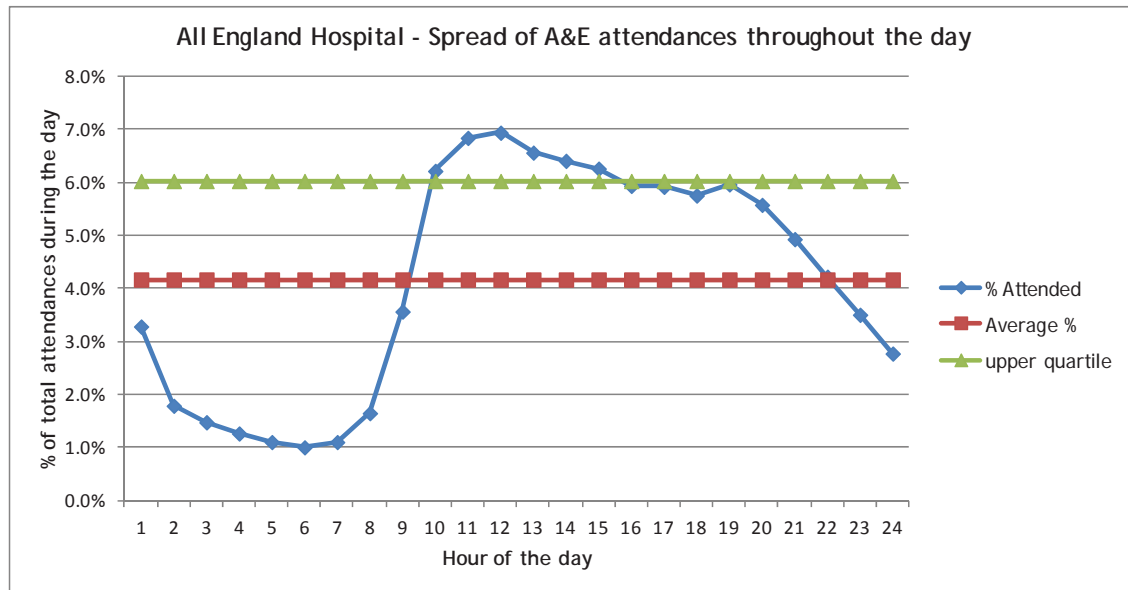
1.4.4.6 Resuscitation

174. 3 resuscitation beds within one room (including one paediatrics bed - in same room but with more appropriate decor)

1.4.4.7 Decontamination

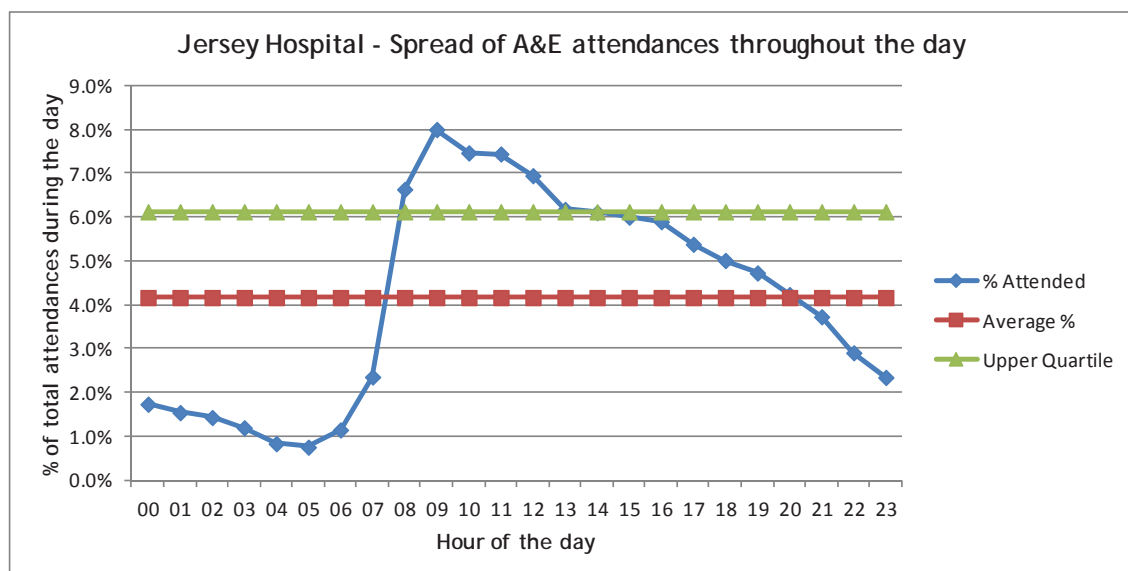
175. Whilst never used, the department also has a decontamination room
176. In addition a review of the department has identified the following issues:
177. Current space standards particularly in majors and resus are very poor. Majors bays are c. 7-8 m². Resus areas around each bed can be no more than 7 m² and have some curtaining between trolleys.
178. It is not uncommon for all resus beds to be in use at one time.
179. The following tables and graphs summarise the activity occurring within the department over the past three years.
180. To begin, the following graph identifies the overall attendance by hour of the day across all English hospitals (Source NHS Information HES Statistics). It describes a recognised pattern of attendance by hour which acts as a useful comparator for Jersey. The particular circumstances of Jersey as a small island obviously do not draw direct comparison with all England statistics but it is useful to identify the differentiators.
181. The graph identifies actual attendances throughout the day and also identifies the average attendances during the day as well as the upper quartile attendances during the day. The upper quartile in this instance describes the number of attendances per hour which correspond to the top quarter of such attendances. The top quartile is not a marker for performance per se in this instance but does provide a statistical level of average attendance that can be applied to other attendance levels when looking at individual hospitals.
182. The actual attendance levels as a percentage of total attendances by hour describes a well known shape where attendances increase dramatically from the hours of 8 am onwards, peaking around mid-day. This is due in England to the natural flow of patients self presenting at A&E following a "bad night" or from GPs referring a patient to A&E following an urgent consultation first thing in the morning, this element of the graph is described within this modelling exercise as peak demand. Attendances reduce steadily during the rest of the standard working day until 7 pm (semi peak demand) and then fall more rapidly throughout the evening (described as semi low attendances in the modelling) and are minimal during the early hours of the morning (low attendances).

Figure 1.28: English A&E attendances per hour as a percentage of total attendances each day



183. The attendance profile for Jersey Hospital is described in Table 2.

Figure 1.29: Jersey A&E attendances per hour as a percentage of total attendances each day

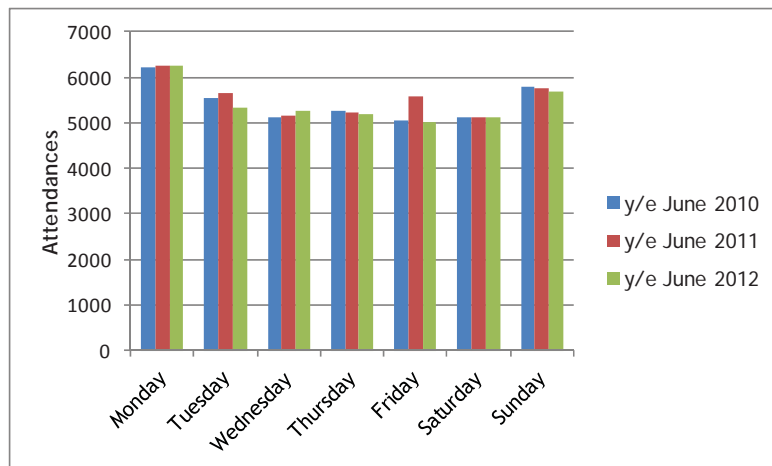


184. The profile of attendances at Jersey Hospital describes a broadly similar profile to all England albeit with some material differences. The peak attendance occurs earlier in the day in Jersey (between 9 am and 10 am, compared to between 11 am and 12 pm across

England) and represents a greater proportion of total attendances in the day. This no doubt represents the fact that A&E use by patients is greater in Jersey than in England due in part to the GP payment structure on the island promoting the use of A&E directly by patients rather than an initial visit to the GP.

185. The upper quartile attendance rate (6.1% attendances per hour) is very similar to the English average (6% attendances per hour). Whilst such a benchmark is useful, the peak in demand needs to be considered when planning for actual capacity requirements in the final stages of the activity modelling process.
186. Table 4 simply analyses the attendance by day for the three years of base data available within the model. It can be seen that Monday and Sunday consistently account for the largest proportion of attendances across all three years.

Figure 1.30: Analysis of attendances by day of the week for 3 years



187. Figures 1.31 and 1.32 disaggregate the hourly attendances by splitting between adults and paediatrics and also by day of the week. They present a richer picture.

Figure 1.31: Adult A&E attendances at Jersey hospital by hour and day of the week

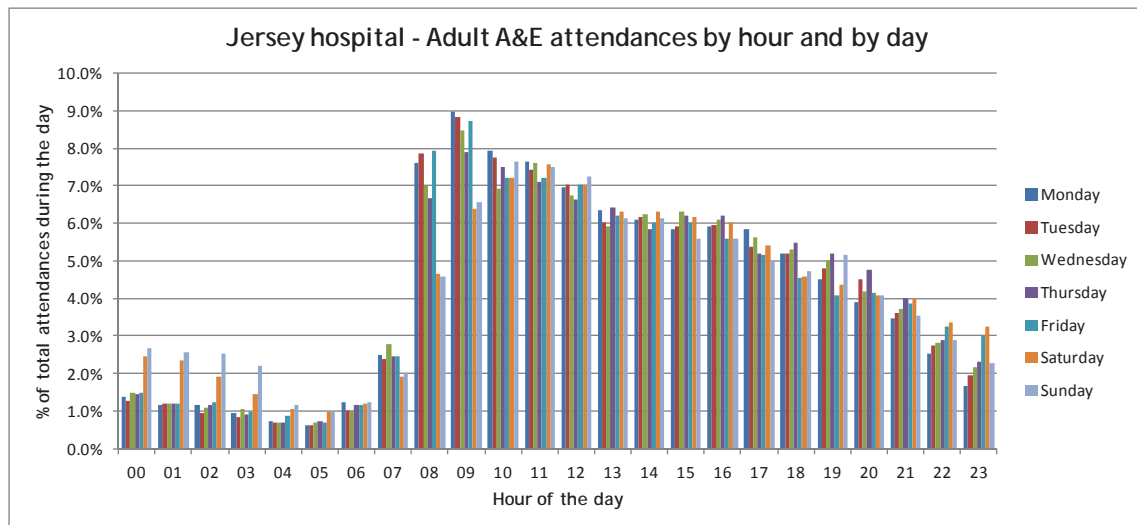
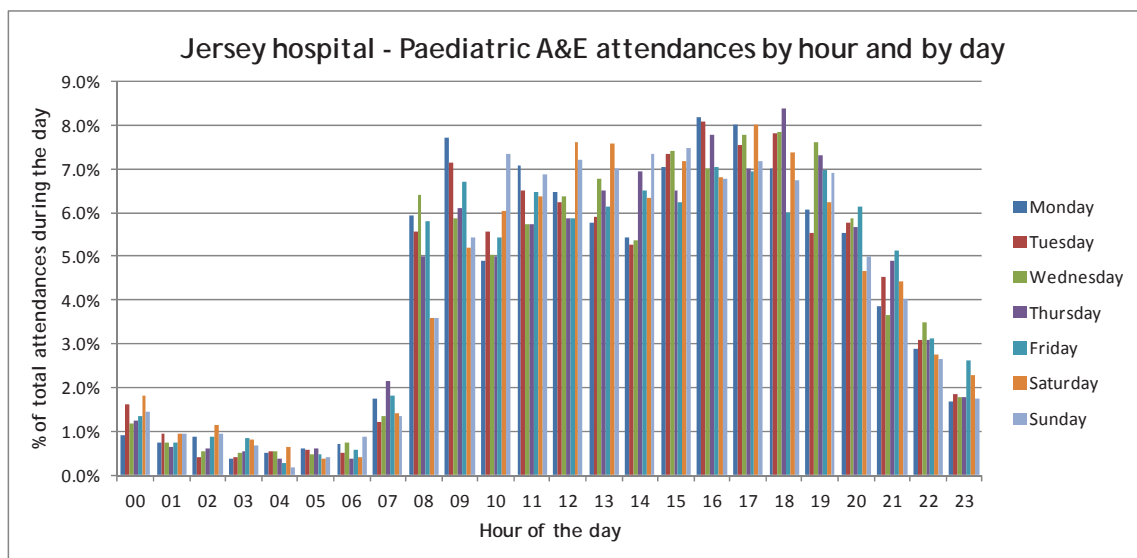


Figure 1.32: Paediatric A&E attendances at Jersey hospital by hour and day of the week



188. The two more detailed tables add a richer picture to the current flow of patients into the department.

1.4.4.8 The adult demand curve

189. For adults peak demand of 9% is greater than the combined adult and paediatric peak demand of 8% of all attendances in one hour. The adult demand curve follows a broadly

similar pattern of attendances as per the English average; there are differences dependent on the day of the week:

190. Friday and Saturday night attendances by adults at A&E are significantly greater than the rest of the week - requiring some planning for primarily drink related events at those times
191. Attendance earlier in the morning (from 8 am) on Saturday and Sunday is significantly lower than other days, but this attendance rate picks up to match attendances per hour by 10 am. The conclusion being that some adults self present at A&E later on a weekend, because it is just that. This does lend further weight to previous analysis that a proportion of attendances at A&E are quite capable of being diverted to a primary care setting to be dealt with there or even advised that there is little intervention required for a particular patient presentation.

1.4.4.9 The paediatric demand curve

192. Attendance earlier in the morning (from 8 am) on Saturday and Sunday is significantly lower than other days, but this attendance rate picks up to overtake weekdays from about 10 am onwards - the conclusion that as with adult attendances, weekend attendances start later in the day at the weekend.
193. Many of the peak attendances throughout the day occur on Saturday and Sunday, in addition Monday and Tuesday sees a peak in attendances early morning (between 8 am and 10 am)
194. Further peaks are seen on a weekday between 4 pm and 7 pm.
195. The data analysis does imply that a number of the peak demand hours are driven by an element of convenience in the time that a patient attends A&E which does support the concept of diverting patients away from A&E and into GP led care.

1.4.5 The Bailiwick model

196. The Bailiwick model identifies three elements as part of the GP based diversion of care away from A&E:
- Single Point of Access, this will have two potential effects:
 - .1. diverting patients away from seeking care (pure inappropriate attenders).
 - .2. diverting patients to GPs (more appropriate care)
 - GP presence in A&E
 - The presence of a GP Co-Operative within A&E in addition to planned GP led clinics to perform an out of hours service
197. The above strategies have the following planned effect on activity.

Figure 1.33: Summary of KPMG technical paper assumptions regarding the effects of a single point of access and GP based diversions of minor activity

% Reduction in A&E attendances based on 2011 base data						
	2011	2012	2013	2014	2015	2016
Single Point of Access						
Percentage that do not attend	0%	3%	4%	5%	5%	5%
Percentage diverted to GP	0%	3%	4%	5%	5%	5%
Enhanced teams in A&E						
Percentage treated by GP and not within A&E	0%	3%	5%	8%	10%	10%
Total	0%	9%	13%	18%	20%	20%

Maximum reduction reached in 2015

198. The KPMG technical document identifies the precedent for such change. The single point of access effects through evidence from UK Ambulance Trusts (A vision for emergency and urgent care, NHS Confederation the and Ambulance Network p10 -12, 2008) and a number of reports based on UK providers by a range of organisations identified the potential for up to 30% reductions in attendances through identifying inappropriate self referral patterns. When tested within Jersey Hospital, the above potential reduction was set at up to 40% reduction. The nature of the GP payments system on the island however means that actual transfer of patients away from the A&E department to a GP led service would be much harder to achieve. The model therefore identifies a 10% reduction in such activity in the future.
199. The hospital is currently introducing such a system for an out of hours GP service within the hospital, this out of hours service as opposed to a 24/7 service is anticipated to impact on between 2,000-3,000 attendances per annum. The model has been set up accordingly to run a series of scenarios based on the above performance assumptions.
200. The KPMG technical paper also identifies that c. 75% of all ED activity is described/categorised as "standard". The source of this categorisation is not referenced within the document and there is no specific categorisation within the PAS datasets to review this categorisation either within the HASF or Trakcare systems. That is not to say that such a categorisation is incorrect. A review of outcome destinations coupled with high level assumptions regards the correlation between outcome destinations and minor/major categorisations reveals that there is a majority of minor based attendances which could be as high as 75% per the technical document. A working assumption of scenarios of minor proportions between 70% and 75% minors has been assumed.
201. The KPMG based performance assumptions identify up to a 20% reduction in activity through GP based and single point of access based reductions and diversions in activity. It should be noted that such approaches will obviously only impact on those attendances classified as minors therefore the overall 5 reduction in minors based activity is greater than 20%. The following table identifies the consequential reduction in minors activity

when a 20% reduction is applied to all activity (majors activity is not set to reduce as a consequence of the plans in place).

202. Assuming a 75% proportion of minors activity, a total presumed reduction of 20% activity across both majors and minors equates to a 27% reduction in minors activity alone. This represents a significant increase in the effects of single point of access and GP diversion. As such a series of sensitivities has been performed to understand the likely impact on future capacity requirements if such GP led diversions and replacement services do not fully occur. Such sensitivities allow the future hospital to be massed and sized to withstand a range of future performance scenarios.
203. In addition it should be noted that in general the older a person presenting at A&E, the greater the likelihood that that person will be treated as a major rather than a minor (this increase is sourced via the NHS Information Authority's HES data publication). The Fusion Model identifies that there is an increase in presumed major attendances as a result of an increasing elderly proportion of A&E attenders over the next 20 years. This increase in the proportion of majors is built into the adult modelling outputs and represents approximately a 10% increase in the current number of major A&E attenders due to more detailed demographic profiling.
204. It should be noted that the proportion of paediatric majors will, based on the same logic, rise by only c. 0.2% over the next 20 years.

1.4.6 Modelling outputs

205. The model firstly identifies the effects of demography based on States of Jersey statistics regarding the future numbers of residents on the island split by age band and gender. There are a range of demographic projections available as outputs from the statistical department. The scenarios differ in the assumptions utilised regarding the net inwards migration of residents and their families. The KPMG model utilises the previous +150 HH assumption which relates to a net inwards migration of 150 households each year (i.e. 150 individuals together with assumptions regarding the number of family/dependents - 1.2 dependents per head) that individual would be accompanied by.
206. Revised demographic projections have now been incorporated into the Strategic Outline Case document based on the October 2012 revised projections assuming that the +350 scenario as described by the States of Jersey (assuming a net inwards migration of 350 per year) to be the most likely scenario. There is no material difference in the outputs with reference to emergency department key functional content between the original +150HH and the revised +350 migration scenarios.

1.4.7 Average time in department

207. The average time a patient spends in the department has been analysed over the three years of data availability and also compared to English median and upper lengths of stay in the department. It cannot be assumed that English standards can be achieved in Jersey as

a range of differentials exist when comparing an enclosed island based emergency department with all England averages, however the average durations compare favourably to the point where the model takes current actual durations for the year ended June 2012 as the performance point of reference. These lengths of stay split into major and minor and by adult / paediatrics (Paediatrics here is considered below 15 years rather than below 16, based on the tendency/trend for 15 year olds to be treated in a more adult environment.

208. The small nature of the A&E department required precludes the requirement or indeed benefit for separation of different elements of the department. It is anticipated that the A&E department will operate as one homogenous department for efficiency of resource use whilst maintaining suitable privacy and dignity for different patient groups, as can be achieved in modern design with suitable space standards.
209. The actual times to discharge are based on an assessment of the proportions of majors and minors presenting at the department. Actual categorisation of activity in this manner is not available from the base data. The assumptions regarding the split of major/minor activity is based on the analysis of outcomes and is summarised below:

Figure 1.34: summary of assumptions regarding major and minor split within Jersey ED

	Adults		Paeds	
	Minor %	Major %	Minor %	Major %
Did not wait	100%	0%	100%	0%
Died	0%	100%	0%	100%
Discharged	70%	30%	70%	30%
ED follow up	50%	50%	50%	50%
Follow Up X-ray	50%	50%	50%	50%
Referral	50%	50%	50%	50%
Self Discharge	100%	0%	100%	0%
Transfer IP	0%	100%	0%	100%
Transfer Other	0%	100%	0%	100%
Unknown	0%	100%	0%	100%

210. Times to discharge are summarised below:

Figure 1.35: summary of times to discharge incorporated within the model

	Time to discharge
Adult Major A&E	146
Adult Minor A&E	110
Paeds Major A&E	112
Paeds Minor A&E	98

211. Based on the above assumptions, the range of key functional content for the three performance scenarios is summarised below in Table 12.
212. It can be seen that the difference between achieving 100% of the KPMG performance assumptions compared to 50% is minimal and even the same when modelled functional content is rounded up to the nearest unit.
213. Compared to the existing 16 patient units (including 3 resus), a 50% achievement of A&E diversions per the KPMG paper results in a requirement for 17 units (including 3 resus) by 2040.
214. It is recommended that such a scenario be treated at this stage as most likely; however greater performance improvement does not reduce the overall space requirements. Additional space is required however, should no redirection or diversion of A&E activity occur.

Figure 1.36: summary of A&E functional content to 2040 by performance scenario +350

		2011			2016			2021			2031			2040		
		0% perf	50% perf	100% perf	0% perf	50% perf	100% perf	0% perf	50% perf	100% perf	0% perf	50% perf	100% perf	0% perf	50% perf	100% perf
majors	Adults	6	6	6	6	6	5	6	6	5	7	6	6	7	7	6
minors	Adults	5	5	5	6	5	5	6	5	5	6	5	5	6	6	5
majors	Paeds	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
minors	Paeds	2	2	2	2	1	1	2	2	1	2	2	1	2	2	1
Resus		3	3	3	3	3	2	3	3	3	3	3	3	3	3	3
Total provision		17	17	17	18	16	14	18	17	15	19	17	16	19	19	16

1.4.8 Activity projections supporting the Above

215. The following two tables summarise activity projections through to 2040 for adults and paediatrics based on no change to performance, 50% achievement of KPMG ED reductions and 100% achievement. The above tables depicting key functional content requirements show that the total effect on departmental area will be small as the maximum potential increase in functional content is restricted to 3 bays in adult majors and minors, the consequential increase in support accommodation (to a greater extent fixed accommodation) will be small.
216. The projected activity is based on the +150 Head of Household migration scenario for the purposes of comparison to the original Bailiwick Model.

Figure 1.37: Adult ED Activity Projections

Sum of SumOfactivity after performance	Column Labels		
Row Labels	0% Bailiwick achieved	50% Bailiwick achieved	KPMG Bailiwick
2011	30,988	30,988	30,988
2012	31,193	30,726	30,258
2013	31,409	30,258	29,106
2014	31,611	29,504	27,396
2015	31,782	28,604	25,426
2016	32,022	28,820	25,617
2017	32,212	28,991	25,770
2018	32,446	29,201	25,956
2019	32,672	29,405	26,138
2020	32,854	29,568	26,283
2021	33,080	29,772	26,464
2026	34,058	30,652	27,246
2031	34,783	31,304	27,826
2040	36,108	32,497	28,886

Figure 1.38: Paediatric ED Activity projections

Sum of SumOfactivity after performance	Column Labels		
Row Labels	0% Bailiwick achieved	50% Bailiwick achieved	KPMG Bailiwick
2011	6,871	6,871	6,871
2012	6,766	6,665	6,563
2013	6,660	6,416	6,172
2014	6,630	6,188	5,746
2015	6,631	5,968	5,305
2016	6,579	5,921	5,263
2017	6,568	5,911	5,254
2018	6,528	5,875	5,222
2019	6,488	5,839	5,190
2020	6,458	5,812	5,166
2021	6,438	5,794	5,150
2026	6,427	5,785	5,142
2031	6,538	5,884	5,231
2040	6,483	5,834	5,186

1.5 Projected accommodation schedule at 2040

Clinical and Support Service		Existing		Current Area (m2)		Proposed		Proposed Estimated Area			
Zone	Department	Functional Units		incl stairs/lifts etc	Actual Functional incl Circ	Activity	Functional Units	Comment	Ground preferred Area(m2)	Any Level Area(m2)	
	Main entrance, visitor amenities, retail, café etc							reception, transport, waiting, amenities	800		
								retail	100		
								health records management	200		
								not store			
Emergency zone											
	Emergency department	12	units	979	783.2	38 000-40 000 attendances per annum	17-19	units	designed as zones - resus, major, MIU, Paeds	1236	
		3	units	145	116						
		-	-	-							
		x	referrals	?		GP referrals	12	places	630		
	Acute Receiving Ward		17	beds	550	440	included in bed model			-	
In-patient and Integrated Units											
	In-patient beds - adult acute general - public	168	beds	7304	5843.2	see bed model	227	beds	56 sq m /bed	Refer to Note 1 below	13160
		28	beds				18	beds	70 sq m /bed		1260
	Critical Care	10	beds	625	500	to be modelled?	12	beds	75 sq m /bed		900
		In-patient beds - mental health	-	-	-	-	-	-	-	-	-
	Women's Unit - Obstetric In-patient beds	18	beds				18	beds			1008
		8	LDR rooms	1722	1377.6	see bed model	11	units	awaiting activity projections		876
	Neonatal unit	8	cols				9	cols			392
		Women's Unit - ANC, EPS, U/S, day	x	various	200	160	see OP model			integrated ANC, EPS, U/S, Foetal assess etc	504
	Paediatric unit - inpatients	16	beds	603	482.4	see bed model	13	beds	integrated unit - in-pt, day pt clinic		1008
		x	places/atts	200	160	OP model	2	day case			

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 1: Strategic Case

Date: 14th October 2013

Clinical and Support Service		Existing		Current Area (m2)		Proposed		Proposed Estimated Area	
Zone	Department	Functional Units	Incl stairs/lifts etc	Actual Functional Area	Activity	Functional Units	Comment	Ground preferred Area(m2)	Any Level Area(m2)
Treatment and Diagnosis									
	Operating theatres - inpatient	4 theatres, excl obs and day theatres	1400	1120	30% increase in surgical activity to 2040	9 + 1 shelled theatres	integrated in-pat day and obs theatres		3493
	Operating theatres - day	2+1 minor ops	2243	1794.4					
	Imaging department - radiodiagnostic	4 rooms				5 rooms	incl ED		
	Imaging department - CT	1 suites				1 suite			
	Imaging department - MRI	1 suites	1453	1162.4	increased activity	2 suite		1540	
	Imaging department - ultrasound	2 + 2 rooms				4 rooms	development?		
Ambulatory Care									
	Outpatients - general	57 c/rooms	979	783.2					
	Outpatients - gynae	7 c/rooms	148	118.4					
	Outpatients - dermatology	7 units	379	303.2	see OP model		integrt Dept, may be on several levels	1464.5	1464.5
	Outpatients - ophthalmology/ENT	7 units	1328	1062.4			patient zone for 3 theatres		775
	Day Surgery	?	incl	-	see bed model				
	endoscopy unit	2 endo rooms + processing	550	440		2	endo rooms + processing + recovery		1050
	Medical day/ PIU	2 beds	50	40		4			224
	cardiac cath labs	0 cath labs	-			-			-
	Clinical (incl cardiac) investigations	x units	349	279			ECG; Echo; resp; Holter etc	578	
	oncology - chemotherapy	7 chemo bays	609	487		12	places		700
	oncology - radiotherapy	0 linacs	-				tbc		-
	Renal Dialysis	15 stations	600	480		18	stations	762	
	Neurophysiology	?	-						
	Rehabilitation	x units	1250	1000	see OP model		physio, OT, SLT, podiatry	1209	-

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 1: Strategic Case

Date: 14th October 2013

Clinical and Support Service		Existing		Current Area (m2)		Proposed		Proposed Estimated Area				
Zone	Department	Functional Units		Incl stairs/lifts etc	Actual Functional Incl Circ	Activity	Functional Units	Comment	Ground preferred Area(m2)	Any Level Area(m2)		
Support Facilities - clinical	mortuary and PM facilities laboratories blood transfusion facilities pharmacy	1 table	2 Stores units	2994	2395.2		tbc		354	1597		
		?										
		?										
		?										
administration and staff facilities	offices - clinical and admin ICT Staff changing	x								2000		
		x								400		
		x								350		
academic and clinical	education and teaching centre research facilities - library etc research facilities - laboratories	x		1293	1034					1300		
		x								-		
		x								-		
Support Facilities - non-clinical	Allowance for planning new site Kitchen and staff dining materials management - deliveries materials management - stores materials management - waste etc Linen management Laundry Sterile services, instrument re-processing Cleaning & portering Technical and maintenance offices - building management											
		x										
		x										
		x										
		x										
		x										
		x										
		x										
		x										
		x										
		x										
		x										
Energy centre(s)									600			
Ground preferred										13248	Total briefed	46119
Total area of briefed departments, sq.m.												
Streets - not in departments										1722.2	5995.5	
FM routes										529.9	1844.8	
Stairs and Lifts (mid-rise)										529.9	1844.8	
Service risers										265.0	922.4	
enclosed Plant rooms										1987.1	6917.9	
Total built area, sq.m.										Gd pref	TOTAL	
										18281.6	63644.2	

Note 1: Bed activity projections based on 2011 census result in the total provision of 236 beds (subject to the successful implementation of the community strategies). This projected bed provision is 8 No. Beds less than the initial assessments upon which site planning and costings were based. In the consultants' opinion, this reduction is not significant at this stage of the Strategic Outline Case.

Appendix 2: Economic Case

Appendix 2. Economic Case

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2.1 The assessment process

217. This Appendix, which supports the Economic Case of the SOC, identifies the site options considered and the range of criteria against which each site was evaluated in response to the potential scope identified within the Strategic Case.
218. The assessment and evaluation process to identify the preferred site for the future development of the hospital encompassed the following stages:
- the establishment of an initial long-list of potential sites for consideration (refer to section 2.2 below);
 - the analysis of each long-listed site based on technical information and a review of a preliminary, outline site development strategy for each site (refer to section 2.3 below);
 - a non-financial assessment of each site comprising the evaluation of the benefits and development risk of each site to establish a short-list of three potential sites for more detailed analysis and evaluation (refer to section 2.4 below);
 - the review and approval by the Ministerial Oversight Group of the proposed short-listed sites (refer to section 2.5 below);
 - the further analysis of each short-listed site based on more detailed technical information and site development plans with an indication of the potential building massing for each site (refer to section 2.6 below);
 - the evaluation of the benefits and development risk of each of the short-listed sites to establish a single, preferred site option for the future development of the hospital (refer to section 2.7 below);
 - the review and approval of the Ministerial Oversight Group of the proposed preferred site option (refer to section 2.8 below).
219. From the outcome of the site analysis and evaluation process outlined above it was not possible to separate the two best-scoring short-listed sites to identify a clear, preferred site option. Consequently, the Ministerial Oversight Group asked for a number of challenges on the brief and further sensitivity analyses to be carried out. This subsequent analysis and evaluation also included a further site search to allow variants on site options to be considered. This subsequent assessment and evaluation process to identify the preferred site for the future development of the hospital encompassed the following stages:
- A further site search using the States of Jersey's Department of Planning and Environment's Geographical Information System sites (refer to section 2.9 below);

- the analysis of each of the additional sites based on technical information and a review of a preliminary, outline site development strategy for each of these sites (refer to section 2.10 below);
- the evaluation of the benefits and development risk of each the sites in the revised long-list to establish a short-list of potential sites for more detailed analysis and evaluation (refer to section 2.11 below);
- the review and approval by the Ministerial Oversight Group of the proposed short-listed sites;
- the further analysis of each short-listed site based on more detailed technical information and site development plans with an indication of the potential building massing for each site, taking into consideration the request by Ministers to review different configurations of the short-listed options (refer to section 2.12 below);
- the evaluation of the benefits and development risk of each of the short-listed sites to establish a single, preferred site option for the future development of the hospital (refer to section 2.13 below);
- the development of capital costs for the revised short-listed sites (refer to section 2.14 below);
- the review and approval of the Ministerial Oversight Group of the final proposed preferred site option.

2.2 Long-list site selection

220. As a precursor to the Hospital Pre-Feasibility Spatial Assessment Project, the States of Jersey generated a list of 25 potential development sites which were assessed by a group of officers identified in the following document below to establish a reduced long list of 10 sites to be assessed by the consultants as detailed in the States of Jersey site appraisal process briefing document below.

2.2.1 States of Jersey site appraisal process briefing document:

MASTER 30/5/12

General Hospital pre-feasibility spatial assessment project

CONFIDENTIAL

Sites to be considered by consultant

May 2012

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Hospital project – Sites to be considered

Introduction

As part of the Hospital pre-feasibility project, the States of Jersey needs to provide a 'long' list of potential sites to the selected consultant to compare against the Statement of Business Need. The consultant will undertake an options appraisal process which will involve shortlisting sites and assessing them in detail against assessment criteria to establish a preferred option.

This paper sets out those sites it is proposed are considered by the consultant.

Approach

An initial list of potential sites was developed from discussions within Jersey Property Holdings, the Planning Department and feedback from the Ministerial Oversight Group on the 17th April 2012. A basic set of information was developed on each site and on the 28th May 2012 the following group of Officers met to review the initial list:

Mick Heald (Project Director, Jersey Property Holdings), Lee Henry (Managing Director SoJDC), Kevin Pilley (Director, Policy and Projects, Environment Department), Shane Sweeney (Information and Business Services Manager, Jersey Property Holdings), David Ahier (Senior Project Manager, H&SS), Graeme Le Sueur (Estates Manager, H&SS), William Gardiner (Transformation Programme Manager, Housing) and Jim Shilliday (Project Director, States Treasury).

This group reviewed the list of sites and key information about each, considered additional sites and were asked to identify any additional information regarding the sites that would be of relevance in terms of suitability.

The group undertook an initial assessment of the sites to agree those which should be included on the list and those it was thought would not be suitable for further review. Sites were only excluded in the basis that it would not be feasible to locate a similar sized hospital to the existing on the site, that the site would not be available within in the required timeframe (3-5 years) or because there was another significant reason it should not be considered further.

The Requirement

For this exercise, a preliminary requirement was used, based on the existing hospital. The current hospital has a footprint of c. **19,000 sqm** and a floor area of **40,000 sqm** over a range of storeys, up to 8 in the main building.

When considering sites, the existing footprint was been shown on the site plans to provide an indication of its suitability. The group also considered a preliminary view of the massing and height that would be required to meet the requirement for any particular site.

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Hospital project – Sites to be considered

Considering the sites

Plans for the above sites were considered against the following information:

1. **Size** Site size.
2. **Location:** Location on the Island.
3. **Topology:** The general topology of the site
4. **Ownership:** Who owns the site
5. **Availability:** The availability of the site (it is suggested that it needs to be available within the next 3 years and be able to be developed in c 5 years).
6. **Usage:** Its current or proposed use.
7. **Requirements:** The likelihood of the site meeting the requirement, including and the likely ability to accommodate the volume required, infrastructure and access
8. **Planning:** What key planning policies apply to the site and other key planning issues likely to arise (e.g. height and massing), should the site be identified for a hospital.
9. **Acceptability:** A view as to whether the site is likely to be acceptable politically or by the public.
10. **Cost/Value:** Whether the site has a cost or a value of site for other uses
11. **Information available:** Information available on the site
12. **Other issues:** Other issues, such as covenants on the site.

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Hospital project – Sites to be considered

Sites to be included on the list

Having reviewed the above, the following sites are proposed to be included on the list of sites for the consultants. **Appendix A** provides the basic information and **Appendix B** site plans for each.

<u>Existing H&SS sites</u>	<u>Other large private sites that have been proposed/are being proposed for development</u>
Existing H&SS sites 1. The current site 2. Overdale Hospital (<i>consider with 23 and 24, below</i>)* 3. St Saviours Hospital	Within Built-up Area 16. Jersey Gas site, Tunnell Street 19. Westmount Quarry (Dandara) Edge of Built-up Area 21. Samares Nurseries, St Clement 22. Field 1219, Grande Route de Mont a L'Abbe, St Helier 23. Field 1550 Westmount, St Helier (<i>consider with 2, above</i>) 24. Field 1551 Westmount, St Helier (<i>consider with 2, above</i>)

* Due to the closeness of the sites Overdale should be considered with fields 1550 and 1551.

** Due to the relationship and linkages between the proposed uses of the sites both Waterfront sites should be considered together.

Sites ruled out.

The following sites were ruled out of consideration by the group for the reasons stated. Basic information on these sites is provided at **Appendix C** and site plans at **Appendix D**.

No	Site	<u>Key reasons for exclusion</u>
5.	Former D'Hautree School site	The smaller part of the site would require a c 8 storey high building on a prominent site above town. To create a larger footprint would require relocation of Highlands College functions which would not be achieved within 3-5 years.
6.	Former JCG	The majority of the site is occupied by a primary school and the remaining site too small with

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Hospital project – Sites to be considered	
	too many restrictions to accommodate a hospital. Relocating the primary school would take longer than 3-5 years and would have a high cost.
7. South Hill	The small size of the available site would present difficulties in accommodating the required volume – it is estimated that a seven storey structure would be required in a prominent location overlooking the harbour.
9. Summerland/ Ambulance Station	The site is too small without the ambulance site, which would take longer than 3-5 years to move. Even with the ambulance site, this would be too small site for a new hospital.
11. Fort Regent	Whilst this site raises a number of questions in terms of access, topology and heritage issues, the current occupants of the site (i.e. sport and concert facilities) would need to be relocated and this was unlikely to be achieved within 3-5 years.
12. Snow Hill Car Park	Providing the required volume on a site of this shape and footprint would require a very tall building, in the order of 14 storeys, which would be out of keeping with the local area. The site would also result in an inefficient building shape.
13. Elizabeth Harbour	The current port facility would have to be moved in order for this site to be available. There are no plans to do this and this would not be achieved within 3-5 years. The costs of moving the port to provide a Hospital are unlikely to be justified.
15. Bellozanne Valley	Preliminary plans by Transport and Technical Services show that the area left in the valley once liquid waste facilities have been upgraded would not meet requirements. Location is also problematic as is co-location with municipal activities such as liquid waste treatment.
17. Le Masurier's land, Bath Street	The site is too small and would require a tall building (c 12 storeys) to meet the likely area requirements. This would be out of keeping with this area of town.
18. Former Jersey Brewery, Ann Street	Site has a small footprint which would require a tall building (c 11 storeys). This is out of keeping with the surrounding area.
20. Longueville Nurseries, St Saviour	The site is not large enough to support a development in this area and is may not be available within 3-5 years.
25. Parade Gardens	Considered on the basis that the public park could be recreated on the current hospital site, however a covenant on the site prohibits building on it.
26. Springfield Stadium	The current facilities would need to be relocated, which would take longer than 3-5 years, also a key public amenity in the area.
27. FB Fields	A covenant on the site prohibits building and retains the site for sport. The current facilities would also have to be relocated.

2.2.2 Long-list assessment information

Site 01: The existing General Hospital site (with potential additional purchased areas)

Site 02: Overdale Hospital

Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)

Site 04: Esplanade Car Park, and Site 14: Zephyrus / Westwater / Crossland site

Site 08: Land at Airport (fields to the south)

Site 10: Warwick Farm

Site 16: Jersey Gas site, Tunnel Street, St. Helier.

Site 19: Westmount Quarry, St. Helier

Site 21: Samares Nurseries

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier

Figure 2.1: Jersey: Site location map



Figure 2.1: Jersey: Site location maps

Figure 2.2: St. Helier: Site location map



2.3 Long-list site analysis

2.3.1 Technical information

221. A significant element of this analysis was based on the gathering of technical information for each site relating to planning and transportation considerations; utility information relating to electricity, water and drainage; environmental issues; and hospital estates' information relating to existing buildings and sites, which generated discussions with a range of relevant stakeholders including:

- States of Jersey Planning and Environment Department
- States of Jersey Transport and Technical Services Department - transport issues
- States of Jersey Transport and Technical Services Department - drainage issues
- Jersey Electricity
- Jersey Water
- Jersey Fire Services Department
- Hospital Estate Management Service.

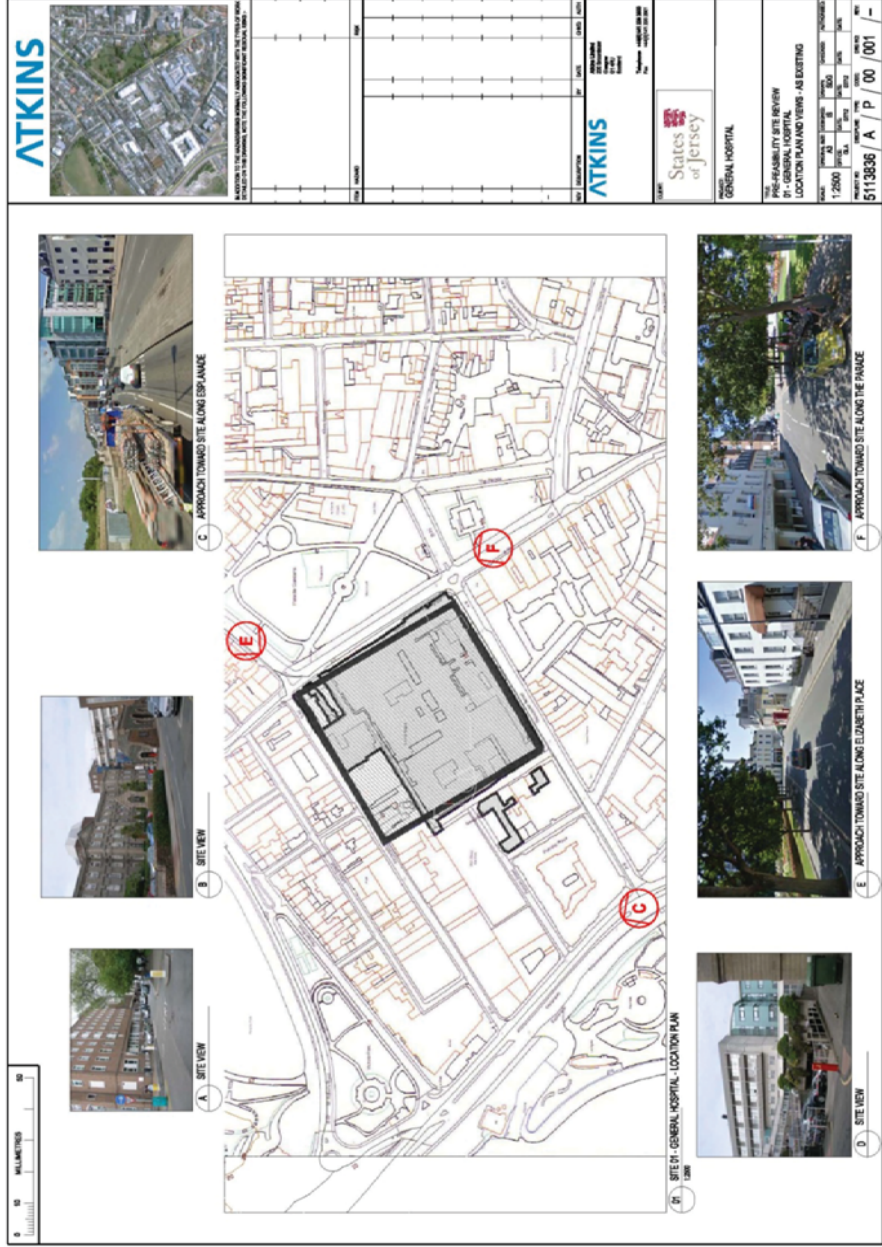
222. A summary of this information for each site is provided in the tables below.

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2.3.1.1 Site 01: Existing General Hospital, St. Helier



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Site 01: The existing General Hospital site (with potential additional purchased areas):	
Item:	Response:
Size:	<p>Total floor area (GIFA) of the existing hospital is approximately 38,863m², excluding accommodation which may be included in the block on the corner of Kensington Place and The Parade and the clinics in the buildings on the opposite side of Newgate Street.</p> <p>Site area of existing hospital site: approximately 17,660m²;</p> <p>Site area of potential additional corner site: approximately 940m²</p> <p>Site area of potential additional hotel site: approximately 2,720m²</p> <p>Total potential site area: approximately 21,320m²</p>
Location:	Existing hospital site. In town, close to main roads and other facilities, such as parking.
Topology:	Flat, brownfield site.
Ownership:	States-owned site.
Availability:	Site available, but usage means phased approach will be required.
Usage:	Currently in use as a hospital. Land which might be acquired comprises two hotels, which are believed to be on the market, plus two properties in Edward Place.
Requirements:	Should meet requirements as currently known.
Planning	<p>Accords with Island Plan spatial strategy and healthcare facility policy.</p> <p>Potential heritage issue raised by redevelopment proposals (1860 hospital bldg, gatehouse and setting are Listed) and expansion options (Listed buildings at Edward Place).</p> <p>Site within Area of Archaeological Potential.</p>

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Site 01: The existing General Hospital site (with potential additional purchased areas):	
Item:	Response:
Public Acceptability	Likely to be politically and publicly acceptable.
Cost / Value:	Cost of acquisition of additional land.
Information Available:	Drawings of all buildings. Low level information on surveys etc., through Hospital's estates' team.
Other Issues:	
1.0 Massing and Planning Issues:	
<p>1.1 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:</p> <ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²). 	<ul style="list-style-type: none"> • The extended site available on purchase of the adjacent properties will allow a building footprint of approximately 15,800m² to be developed. This, if evenly developed, would result in a four-storey building plus roof to attain a GIFA of approximately 60,000m². In reality, it is likely to be generally three to four storeys with a six storey ward block. • Due to the restricted area of the whole site, it will not be possible to provide all the preferred ground floor accommodation at that level. Therefore some compromise on clinical adjacencies will be required where some accommodation will have to be placed on the first floor. • Being a constricted city centre site, enclosed by roads or adjacent properties, there will be limited opportunities to expand the facilities within the boundaries of the site. Consequently, it may be necessary to consider incorporating internal 'shell space' which is not fitted out to facilitate future expansion in critical areas such as imaging and OT. It may be possible to add further floors to some areas if the structure and services' infrastructure is designed in such a way from the outset to facilitate such future construction.

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Site 01: The existing General Hospital site (with potential additional purchased areas):	
Item:	Response:
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	Accords with Island Plan spatial strategy and healthcare facility policy.
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	Potential heritage issue raised by redevelopment proposals (1860 hospital bldg, gatehouse and setting are Listed) and expansion options (Listed buildings at Edward Place). Site within Area of Archaeological Potential.
1.4 The site requirement for the total hospital development should be immediately available.	
2.0 Transport and Access Issues:	
2.1 The site should afford ease of access to the majority of the island's population.	The site is located within St. Helier and close to approximately 70% of the island's population.
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	The existing site operates as a hospital and, whilst the surrounding roads are all urban and some restricted in width, the site is located close to the main gyratory road structure which distributes traffic across and round St. Helier. There is good access westwards towards the airport and there are main roads radiating out from St. Helier to all parts of the island.

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Site 01: The existing General Hospital site (with potential additional purchased areas):		
Item:	Response:	
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	There are a total of 19 different bus routes around Jersey, all of which leave from Liberation Station bus depot in St Helier, approximately 600m (approximately a 5 to 10 minute walk) from the hospital. There are local bus stops for various routes closer to the hospital.	
2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	Very limited car parking on site – local to the entrances on Gloucester Street and Newgate Street and in the vicinity of the energy centre. Adjacent multi-storey car park on Patriotic Street with 613 spaces.	
2.5 The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	Existing ambulance access into the hospital grounds from Gloucester Street to A&E. The hospital is close to both the ambulance and fire depots.	

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Site 01: The existing General Hospital site (with potential additional purchased areas):		
Item:		Response:
2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows:	<ul style="list-style-type: none"> Staff, patients and visitors; Ambulances to A&E; FM deliveries and waste removal to/from service yard. 	<ul style="list-style-type: none"> Problems with a number of different entrances to the existing hospital and hospital grounds on all sides. The existing pedestrian pelican crossing may be moved to mid-way up The Parade opposite the main and emergency entrances, although easier and safer for pedestrians to cross at junctions; Further main entrance accessed from Newgate Street with limited local parking on site, but served by the multi-storey car park on Patriotic Street; Separate ambulance access entrance from Gloucester Street; Local FM access from both Kensington Place and The Parade – not sufficient space on the site for a dedicated service yard for deliveries and waste removal and turning of large lorries.
3.0 Infrastructure and Geography:		
3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider:	<ul style="list-style-type: none"> Exposure / orientation; Environmental issues. 	Town centre site, but only approximately 400m from the shore. With an eight storey ward block, the upper four storeys and roof are higher than the adjacent buildings and are significantly more exposed to the weather. The prevailing wind direction in Jersey is predominantly from the west, but with winds also from the south and north-east.

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Site 01: The existing General Hospital site (with potential additional purchased areas):	
Item:	Response:
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> Power (electricity); Water; Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> Currently 2 x 11kV supplies in an open ring supply the site with local hospital transformers reducing the voltage as appropriate for local use. This is adequate for the projected demand. The open ring provides security in supply if one of the 11kV supplies fails. <p>Water:</p> <ul style="list-style-type: none"> Water Infrastructure surrounding the site is good allowing for continued supply in the event of bursts in the area. Some rationalisation of site may be required to provide efficient supply. <p>Drainage:</p> <ul style="list-style-type: none"> Drainage capacity as existing is OK.
4.0 Clinical and Non-clinical Support:	
<p>4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)</p>	Currently, CSSD, Stores and Laundry are located remotely on a site at Five Oaks.

Hospital Pre Feasibility Spatial Assessment Project

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Site 01: The existing General Hospital site (with potential additional purchased areas):		
Item:	Response:	
5.0 Clinical Care and Patient Related Issues:		
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	Due to the restricted area of the whole site, it will not be possible to provide all the preferred ground floor accommodation at that level. Therefore some compromise on clinical adjacencies will be required where some accommodation will have to be placed on the first floor.	
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	Being a constricted city centre site, enclosed by roads or adjacent properties, there will be limited opportunities to expand the facilities within the boundaries of the site. Consequently, it may be necessary to consider incorporating internal 'shell space' which is not fitted out to facilitate future expansion in critical areas such as imaging and OT. It may be possible to add further floors to some areas if the structure and services' infrastructure is designed in such a way from the outset to facilitate such future construction.	
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	Depending on the outcome of the functional content review and the extent of the existing accommodation which is retained after the transitional plans have been executed, there may be some existing areas which are retained which do not meet current UK room scheduling guidance.	

Hospital Pre Feasibility Spatial Assessment Project

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Site 01: The existing General Hospital site (with potential additional purchased areas):	
Item:	Response:
5.4 Quality of patient environment including views and social spaces	As the hospital is contained within a constricted town centre site, there are limited opportunities for patient outlooks over landscaped areas, other than from the north eastern elevation of the hospital across The Parade to the Parade Gardens. With the redevelopment of the existing facilities, there is an opportunity to clear the centre of the site and create a large social open space which could be designed with hard and soft landscaping to create improved outlooks from the surrounding buildings. Similarly any perimeter open space, such as setting-down areas outside the main entrance could be treated as public realm spaces with appropriate hard and soft landscape.
5.5 Convenience of access for friends, family and visitors and access to town facilities.	As noted above, the existing hospital is located centrally within St. Helier in close proximity of approximately 70% of the island's population and close to main arterial roads converging on St. Helier with good public transport access from all parts of Jersey. Also close to commercial area with shops, banks and restaurants close by.
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	The remodelling of the existing facility will be undertaken in a series of consecutive phases over a number of years (perhaps 5 to 8). During this time there will always be construction work being undertaken somewhere on the site. Consequently, there will be periods when there will be disruption to normal clinical services which may affect the retention and recruitment of staff.
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	Once, however, the remodelling of the facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.

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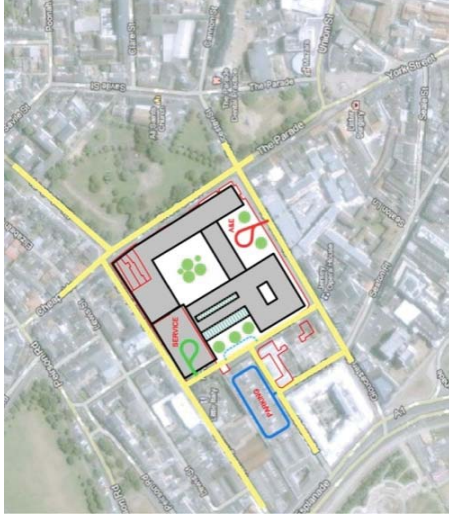
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Site 01: The existing General Hospital site (with potential additional purchased areas):		
Item:	Response:	
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	This is a town centre site close to business and social areas and, as a result, its security should benefit from general activity and policing in the area. However, the Parade Gardens can attract an anti-social element.	
7.0 Construction and Buildability:		
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures.	The hospital will have to be remodelled in a phased, progressive redevelopment process; first partially demolishing area(s) to clear space to construct new replacement facilities, to allow subsequent decanting of other areas which can then be demolished to allow new construction, and so on. This will require careful programming to ensure continuity of clinical services and to minimise disruption to these services.	
7.2 Access to site for construction vehicles, deliveries and waste removal.	The hospital is situated on a constricted, town centre site and will present all the issues normally associated with developing such a constricted urban site, such as restricted delivery and waste removal times with adjacent narrow and, at times, congested roads.	
7.3 Protection of existing services and avoidance of disruption during the build process.	During the demolition and construction periods, particular care and constant monitoring will be required to ensure there are no infection control issues and to reduce the impact of noise and vibration on sensitive clinical services and equipment.	

Site 01: General Hospital, St. Helier: Environmental Assessment Information



Existing



Proposed

1. Planning and Land Use

- Existing hospital; town centre location, brownfield site close to multi-storey car park and other facilities.
- Currently approx. 38,900m² on site area of 17,700m², excluding adjacent multi-storey car park. Potential to increase site area by 3,600m² by purchasing adjacent properties.
- Accords with Island Plan spatial strategy and healthcare facility policy.
- Potential heritage issues raised by existing 1860 hospital 'granite building', gatehouse and setting are listed and with listed buildings in Edwards Place affected by potential site expansion options.
- Site within area of Archaeology Potential.

2. Biodiversity and Nature Conservation

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- The site is a densely developed city centre site with minimal soft landscaping and little evidence of breeding wildlife of special interest. However, a site survey of flora and fauna should be carried out at the next stage to identify specific species present on site and if there are habitats on the site which support breeding, roosting and/or hibernation, for example for bats and nesting birds.
 - The site overlooks Parade Gardens, a maturely landscaped urban park.
- 3. Landscape and Visual**
- Minimal landscape on the actual site.
 - Visual outlook poor from the site onto Gloucester Street, Newgate Street and Kensington Place, but overlooks Parade Gardens to the north-east over The Parade.
- 4. Traffic, Transport and Access**
- Congested roads (one-way system) around three sides of the hospital.
 - Limited car parking on site; adjacent 613-space multi-storey car park.
 - Particularly congested around the Out-patients entrance.
 - There are many existing vehicle and pedestrian entrances covering ambulance, facilities management, staff, etc. A rationalisation of this would be a benefit in any redevelopment proposal.
 - Other than consideration of growth and construction traffic, there will be little change in traffic impact to the existing.
 - Redeveloping the site would provide an opportunity to review the interfaces between the Hospital and the surrounding transport infrastructure/highways.
- 5. Noise and Vibration**
- City centre site, already subject to traffic noise, vibration and emergency sirens associated with the existing hospital.
 - No significant change in noise and vibration emissions with the proposed development.

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6. Water Resources

- Infrastructure good, allowing for continued supply in the event of bursts. Some rationalisation of site may be required to provide efficient supply.
- Some increase in demand arising from potential 20% increase in bed numbers from approx. 250 to approx. 300.
- Drainage: capacity satisfactory for envisaged development

7. Air Quality and Pollution

- City centre site with air quality affected by traffic congestion.
- Existing hospital site.

8. Ground Conditions and Contamination

- Brownfield site which has been developed as a hospital over 150 years – potential ground contamination.
- Carry out ground investigations to ascertain risks prior to any demolition and construction works.

9. Waste Management

- Existing hospital has refuse collection once a day.
- Consider potential re-cycling of demolition materials.
- Contractor to minimise waste during construction.

10. Archaeology and Historical Buildings

- 1860 hospital 'granite building', gatehouse and setting are listed (Ref AT1003).
- The site is within the St. Helier area of Archaeology Potential, where there has been evidence of earlier human occupation.
- It is recommended that a desk-based assessment of this site is carried out as part of the full EIA for this site.

2.3.1.2

Site 02: Overdale Hospital



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Site 02: Overdale Hospital	
Item:	Response:
Size:	63,150sqm
Location:	Existing health site, slightly out of town and positioned on a hill above the town.
Topology:	Site includes a significant valley area and is positioned in a prominent place above the town
Ownership:	States-owned site, currently used by Health and Social Services
Availability:	Site available, but current usage will need to be considered.
Usage:	Currently in use for a range of health functions, including a rehabilitation centre, the William Knot day hospital, the Willows day centre, the child development centre and administration buildings. Consideration would need to be given to the relocation of these buildings as part of the project. Some consideration has been given to consolidating other Health functions (i.e. such as those at St Saviour's Hospital) on this site, though no firm plans exist.
Requirements:	Accommodating the area requirements on the site could mean a large development high above the town. This may prove problematic in planning terms.
Planning	Accords with Island Plan spatial strategy and healthcare facility policy. Visual prominence of site and landscape impact of a large building would be key planning issue: Overdale site is within the Green Backdrop Zone, and the valley (Le Val Andre) is Protected Open Space. Local transport infrastructure and access may be an issue
Public Acceptability	Could be politically acceptable.
Cost / Value:	The relocation of the existing functions could be required.
Information Available:	Drawings of all buildings. Low level information on surveys etc. -through Hospital's estates team.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 02: Overdale Hospital	
Item:	Response:
Other Issues:	This site should be considered with sites 23 and 24, which are located opposite.
1.0 Massing and Planning Issues:	
1.2 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider: <ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 	The site has an overall area of approximately 63,150m ² which will easily accommodate a ground floor footprint in the region of 20,000m ² along with associated FM service buildings and service yards, surface car parks and setting-down areas, whilst leaving open spaces for public realm and general landscaping and the potential for future expansion. The site slopes down to a significant valley to the west.
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	It is an existing healthcare site, although not an acute facility on the scale envisaged, but accords with the Island Plan spatial strategy. The displacement of the existing healthcare facilities will need to be accounted for in the transitional planning of this project.
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	Visual prominence of site and landscape impact of a large building would be a key planning issue, (Overdale site is within the Green Backdrop Zone, and the valley (Le Val Andre) is Protected Open Space) but considerate design and setting the building into the slope should assist in reducing the visual impact of the hospital.
1.4 The site requirement for the total hospital development should be immediately available.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 02: Overdale Hospital	
Item:	Response:
2.0 Transport and Access Issues:	
2.1 The site should afford ease of access to the majority of the island's population.	Although the site is located not far from the existing hospital and, therefore within relatively easy reach of approximately 70% of the island's population, it is located to the west of the centre of St. Helier at the top of a hill, which may present difficulties for pedestrians and approximately 2km from the central bus depot at Liberation Station.
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	Although close to the dual carriageway main road which leads west out of St. Helier, road access to the area of the site is by way of narrower suburban roads, one of which, Westmount Road, climbs by twists and turns from the centre of St. Helier up on to the escarpment ridge. These roads will be more difficult for larger heavy goods vehicles making deliveries and removing waste from the new hospital.
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	<ul style="list-style-type: none"> At present the site is only served by the number 19 bus service route, which is a very localised route from the centre of St. Helier. Most bus travellers coming in from other parts of St. Helier, or outlying areas of Jersey would require to take a bus into Liberation Station and change there to the number 19 bus service. The number 19 service would require to increase its capacity and frequency of service and it is unlikely that it would be possible to get double-decker buses there by way of Westmount Road.

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Strategic Outline Case:

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Site 02: Overdale Hospital		
Item:		Response:
2.4	There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	There are no public car parks in the vicinity of the site, but the site is large enough to accommodate either surface car parks and/or basement car parks taking advantage of the sloping site.
2.5	The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	The site is close to the existing ambulance and fire services' depots. Although the direct route from these depots is by way of Westmount Road, because this road is narrow, twisty and fairly steep, the fire service will access this site from the more major Queens Road and come back to the site from the north - slightly longer, but easier to navigate.
2.6	The site should allow efficient and effective (ideally separate) access by the following traffic flows: <ul style="list-style-type: none"> Staff, patients and visitors; Ambulances to A&E; FM deliveries and waste removal to/from service yard. 	The site is large enough and has a long enough frontage to Westmount Road to provide adequate separate access for the different traffic flows.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 02: Overdale Hospital	
Item:	Response:
3.0 Infrastructure and Geography:	
<p>3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider:</p> <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 	<p>The site is exposed to the prevailing westerly winds and this will need to be taken into account in the construction specifications and detailing.</p> <p>The valley (Le Val Andre) is a protected open space (situated on the western perimeter of the site).</p>
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> • Power (electricity); • Water; • Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> • Supplied from a 1960s sub-station in the area of sites 10 (Warwick Farm) and 22 (Field 1219) which is near to the limit of its capacity. • Perhaps a new sub-station will be built in the area of site 21 (Samares Nurseries), but only on-line by 2016 at the earliest. <p>Water:</p> <ul style="list-style-type: none"> • Water Infrastructure redundancy surrounding the site is limited for high-pressure supplies. Lower pressure supplies are available in large quantity from Westmount Tanks although new pipework would be needed to bring this to site and booster pumps and break tank would be needed to provide sufficient pressure. <p>Drainage:</p> <ul style="list-style-type: none"> • Drainage capacity as existing is OK.

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Site 02: Overdale Hospital		
Item:	Response:	
4.0 Clinical and Non-clinical Support:		
4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)	The site is large enough to accommodate not only the upgraded reprovision of the existing hospital services but also, if necessary, the relocation of the support CSSD, Stores and Laundry which are currently located remotely on a site at Five Oaks.	
5.0 Clinical Care and Patient Related Issues:		
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	The site is large enough to accommodate the 20,000 square metres of preferred ground floor services but, due to the slope of the site down to Le Val Andre to the west, the topography may limit the size of individual floors.	
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	The site is large enough to accommodate future expansion provision, say of 10%, of the gross floor area (approximately 6,000m ²).	

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Site 02: Overdale Hospital	
Item:	Response:
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	The site is large enough to design and construct a hospital to accommodate the required key functional content and to current space standards.
5.4 Quality of patient environment including views and social spaces	The site is located in a suburban, semi-rural setting with a good outlook from the east, to the south to the west, with closer views over a wooded valley to the west and more distant views to the coast.
5.5 Convenience of access for friends, family and visitors and access to town facilities.	The site is still close to the centre of St. Helier but off the main circulation and bus routes. For those who live and work close enough to walk to the existing hospital, pedestrian access to this uphill site will be more challenging, with the likelihood that more people will perhaps travel there by car. There is very limited, if not any, access to shops and other commercial facilities locally.
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	<p>The existing acute hospital can remain operational with little to disruption the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.</p> <p>The new hospital on this site would be further from the centre of town and its commercial and social amenities and to the main bus station at Liberty Station for public transport, and is situated on the top of a hill. It is likely that staff are going to resist an element of change and perhaps feel that the location of this site is not so attractive for quick local shopping and social activities.</p>

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Strategic Outline Case:

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Site 02: Overdale Hospital		
Item:		Response:
6.2	The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	This site may not prove to be so convenient for staff who live in the centre of St. Helier and currently walk to work and this may be the source of some dissatisfaction but, for those who drive to work, it should make little difference as long as there is adequate parking provision. Once, however, the new facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.
6.3	Staff, patient and visitor security relating to location and out-of-hours safety	The site is more isolated than the existing town centre site, although it is adjacent to residential areas. 'Secure by Design' principles should be incorporated into the design proposals to minimise security issues of access and car park security.
7.0 Construction and Buildability:		
7.1	Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	Alternative existing or new-build accommodation will have to be found for the existing health facilities on the site. Once these services have been decanted, the site will be cleared for demolition and the unrestricted construction of the new hospital.
7.2	Access to site for construction vehicles, deliveries and waste removal	The only issue which is likely to cause concern is the winding Westmount Road climbing up from the centre of St. Helier, which may cause difficulty for some larger construction and delivery vehicles, although there are alternative access routes.
7.3	Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little to disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.

Site 02: Overdale Hospital: Environmental Assessment Information



Existing



Proposed

- 1 **Location and Planning:**
 - 63,150m² site area on an out of town centre prominent site on top of a hill.
 - Site includes a significant valley.
 - Accords with Island Plan spatial strategy and healthcare policy.
 - Site is within the Green Backdrop Zone.
 - Valley is a Protected Open Space.
- 2 **Biodiversity and Nature Conservation:**
 - There is extensive open space and mature landscaping around and within the site.
 - The new development will be contained within the upper area of the site and will not extend into the protected valley area below.

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- There will be an initial loss of habitat on this site but this may be mitigated by new landscape proposals associated with the new development. However, a site survey of flora and fauna should be carried out at the next stage to identify specific species present on site and if there are habitats on the site which support breeding, roosting and/or hibernation, for example for bats and nesting birds.
- 3 Landscape and Visual:**
- Visual prominence of site and landscape prominence of a large building would be a key planning issue.
 - The existing site has substantial mature landscape with significant tree planting, particularly around Le Val Andre at the lower, western end of the site.
- 4 Traffic, Transport and Access:**
- Only single bus service (No. 19) - frequency and capacity would require to be increased.
 - Restricted road route climbing up Westmount Road.
 - Alternative longer route from Queen's Road - poor junctions and congestion at times.
 - Congestion at times at adjacent crematorium.
 - Pedestrian access difficult; steep hill for pedestrians.
- 5 Noise and Vibration**
- Suburban site, already subject to traffic noise, vibration associated with the existing hospital, but on a lesser scale than around the existing general acute hospital.
 - Some increase in noise and vibration emissions with the proposed development.
- 6 Water Resources**
- Water: Water Infrastructure redundancy limited for high-pressure supplies. Lower pressure supplies are available in large quantity although new pipework needed to bring this to the site.
 - The drainage capacity is considered satisfactory for the envisaged development.

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7 Air Quality and Pollution

- The site is located in a suburban area to the west of St. Helier with good air quality.
- The quality of the air is likely to be affected by the increased traffic demands.

8 Ground Conditions and Contamination

- As the main part of the site will be extensively developed with hard building and hard landscape features, careful consideration of surface water containment will be required to prevent localised flooding issues.

9 Waste Management

- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- All of the existing buildings will have to be demolished to clear the site for the new hospital development. Consider potential re-cycling of demolition materials.
- Contractor to minimise and recycle waste during demolition and construction.

10 Archaeology and Historical Buildings

- There does not appear to be any significant areas of archaeological or historical interest on this site but a desk-based assessment should be carried out as part of a full EIA for this site.

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2.3.1.3

Site 03: St Saviour's Hospital



Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)	
Item:	Response:
Size:	74,271sqm (Hospital 55,983sqm, Clinique Pinel & Rosewood House 18,287sqm)
Location:	Out of town in St Saviour.
Topology:	Relatively flat, slopes down towards the reservoir.
Ownership:	States-owned site, currently used by Health and Social Services.
Availability:	Would be available.
Usage:	<p>Whilst not in significant use for clinical purposes, it does contain some health functions, including administration. It also includes a number of residential properties. These may have to be relocated as part of the project.</p> <p>Clinique Pinel and Rosewood house are working facilities. Clinique Pinel will shortly be refurbished to provide an additional 10 year lifespan</p>
Requirements:	May be able to fit on site, though retaining the current building could be a problem.
Planning	<p>Whilst this site is within the Built-up Area and the use of an existing healthcare facility accords with Island Plan healthcare facility policy, the relatively remote location of this site, which is distant from main centres of population, challenges the Plan's spatial strategy.</p> <p>Transport and accessibility issues raised.</p> <p>Heritage issues posed by the status of the 1868 Victorian asylum and its front lawn setting, which are Listed, as is adjacent farm (Queen's Farm)</p>
Public Acceptability	Could be politically acceptable, though out of town location is likely to be an issue.
Cost / Value:	

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Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)	
Item:	Response:
Information Available:	Drawings of all buildings. Low level information on surveys etc. - through Health estates team.
Other Issues:	
1.0 Massing and Planning Issues:	
1.3 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider: <ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 	<p>The available site area is split into two distinct areas, separated transversely east to west by the B28, La Route de la Hougue Bie.</p> <p>The site to the north of the B28 accommodates the Clinique Pinel and Rosewood House and covers an area of approximately 18,287m² which, in itself, is not large enough to accommodate the new acute hospital but part, or all, of this site may be required for associated car parking and/or FM support accommodation.</p> <p>The site area to the south of the B28 is much larger at approximately 55,983m², and is of sufficient area to accommodate the new hospital but only if approval is granted to demolish the existing listed Victorian asylum and to develop its front lawn setting. The existing asylum building would not be suitable for conversion into a modern acute hospital facility and, if it remained on the site, its location and that of its associated front lawn, taking up almost half of the available site area, would render the remaining dispersed available area unusable for a development of this type.</p>
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	The present use of the existing facility for healthcare meets with the Island Plan healthcare facility policy, but not necessarily for a large acute hospital of the type envisaged.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)	
Item:	Response:
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	Heritage issues posed by the status of the 1868 Victorian asylum and its front lawn setting, which are Listed, as is the adjacent farm (Queen's Farm).
1.4 The site requirement for the total hospital development should be immediately available.	
2.0 Transport and Access Issues:	
2.1 The site should afford ease of access to the majority of the island's population.	The site is located close to the east coast of the island and to Gorey Village and approximately 4km along country roads to the north east of St. Helier. There are only small villages in the vicinity of the site; the major centres of island population being located in St. Helier and areas to the west towards the airport.
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	The complex roundabout junction at Five Oaks on the main route between St. Helier and the proposed site, is a problem and would require a Traffic Analysis investigation to determine if it would cope with the significant extra volume of traffic that an acute hospital would generate and, if not, what upgrade measures, if any deemed practical and economic, would be required.

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Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)		
Item:	Response:	
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	The existing health facilities are served by Bus Service 3a and by the eastern Island Explorer service both of which continue on to Durrell, where the western Island Explorer service also terminates, thus providing a connection from the villages along the northern strip of the island to this site. However, for the majority of the island's population travelling by bus would necessitate travelling via the Liberation Station in St. Helier and changing to the local services there.	
2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	There are no public car parks in the vicinity and all parking would have to be provided on site; ideally, the whole development including parking would be contained on the larger site to the south of the B28, leaving the northern site with its operational health facilities untouched. However, with the shape of the southern site and with its topography falling to the south and south east to the reservoir it may be necessary to use the southern part of the northern site for additional car parking.	
2.5 The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	All vehicular traffic travelling from St Helier will be affected by the junction at Five Oaks. Thereafter the route to the site is via smaller country roads with implications on travelling time and safety. The Fire Service confirmed that attendance to this site would be OK, but that water supply may be an issue.	

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Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)		
Item:	Response:	
2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows: <ul style="list-style-type: none"> • Staff, patients and visitors; • Ambulances to A&E; • FM deliveries and waste removal to/from service yard. 	The site currently has two entrances at its western end but has a long enough frontage to the B28 to permit a further entrance at the eastern end to provide the necessary separation of traffic flows.	
3.0 Infrastructure and Geography:		
3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider: <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 	Although close to the east coast of the island, the site is not particularly exposed to the prevailing westerly and southerly winds. The site is located on the north westerly edge of a large reservoir bordered by a tree belt. There will, therefore, be environmental issues regarding a large scale development in this area to ensure that there is minimal disruption to the natural environment and to prevent pollution to the reservoir.	

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Appendix 2: Economic Case Date: 14th October 2013

Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)	
Item:	Response:
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> Power (electricity); Water; Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> The existing HV supply has limited capacity but a new HV supply could be provided from the primary sub-station off La Rue de Pres, but this would be quite expensive. <p>Water:</p> <ul style="list-style-type: none"> Water Infrastructure redundancy surrounding the site is limited for high-pressure supplies. The existing 150mm main in the road would provide sufficient supply however, any work requiring a main shut-off would impact the site and measures to store water on site would be needed. <p>Drainage:</p> <ul style="list-style-type: none"> Could have capacity issues – may need either to carry out significant major upgrade of existing sewers to increase capacity or to construct an on-site water treatment plant for the development.
4.0 Clinical and Non-clinical Support:	
<p>4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)</p>	<p>The main site to the south of the B28 is large enough to accommodate the upgraded reprovision of the existing hospital services but also, if necessary, the relocation of the support CSSD, Stores and Laundry which are currently located remotely on a site at Five Oaks could probably be accommodated on the northern, smaller site.</p>

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Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)	
Item:	Response:
5.0 Clinical Care and Patient Related Issues:	
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	The site is large enough to accommodate the 20,000 square metres of preferred ground floor services.
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	The site is large enough to accommodate future expansion provision, say of 10%, of the gross floor area (approximately 6,000m ²).
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	The site is large enough to design and construct a hospital to accommodate the required key functional content and to current space standards.
5.4 Quality of patient environment including views and social spaces	The site is located in a rural, farming area and good outlooks should be available over mature landscape around the reservoir and over fields.

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Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)	
Item:	Response:
5.5 Convenience of access for friends, family and visitors and access to town facilities.	The site is more remote from the majority of the island's population. There is very limited, if not any, access to shops and other commercial facilities locally.
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little to disruption the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	This site will not prove to be so convenient for staff who live in, or to the west of, St. Helier and this may be the source of some dissatisfaction but, for those who drive to work, it should make little difference as long as there is adequate parking provision. Once, however, the new facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	The site is a lot more isolated than the existing town centre site and, although it is adjacent to a small residential area, 'Secure by Design' principles should be incorporated into the design proposals to minimise security issues of access and car park security.

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Site 03: St Saviour's Hospital (with Clinique Pinel and Rosewood House)		
Item:	Response:	
7.0 Construction and Buildability:		
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	Alternative existing or new-build accommodation will have to be found for the existing health facilities on the site. Once these services have been decanted, the site will be cleared for demolition and the unrestricted construction of the new hospital.	
7.2 Access to site for construction vehicles, deliveries and waste removal	All vehicular traffic travelling from St Helier will be affected by the junction at Five Oaks. Thereafter the route to the site is via smaller country roads with implications on travelling time and which may cause difficulty for some larger construction and delivery vehicles.	
7.3 Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little to disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.	

Site 03: St. Saviour's Hospital: Environmental Assessment Information



Existing Proposed

1 Planning and Land Use:

- Relatively remote east coast location on existing healthcare site.
- Approx. 56,000m² site area of asylum and 18,300m² on clinic site to the north of the access road.
- Within the Built-up Area and within the Island Plan healthcare policy.
- Heritage issues posed by the listed status of the 1868 Asylum building, its front lawn setting and the adjacent Queen's Farm - a new hospital could only be developed on the site of the existing asylum buildings and setting with the asylum building being demolished.

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2 Biodiversity and Nature Conservation:

- There is extensive open space and mature landscaping around and within the site.
- There are large, mature trees and old, listed buildings on the site which may well be roosting sites for bats.
- There will be an initial loss of habitat on this site but this may be mitigated by new landscape proposals associated with the new development. However, a site survey of flora and fauna should be carried out at the next stage to identify specific species present on site and if there are habitats on the site which support breeding, roosting and/or hibernation, for example for bats and nesting birds.
- Further site surveys will be required to establish the actual presence of bats and other protected species as part of a full EIA for this site.

3 Landscape and Visual:

- The site is located in a rural, farming area with good outlook over mature landscape around the reservoir.
- There is extensive open space and mature landscaping around and within the site.
- The construction of a new large hospital will change the character and visual outlook into and out of this site.

4 Traffic, Transport and Access:

- Located approximately 4km along country roads to east of St. Helier. Complex roundabout at Five Oaks is a problem and would require a TIA to investigate implications of extra traffic volume.
- Limited bus services – Service 3a and Island Explorer – public from elsewhere on the island would generally require to travel to St. Helier and change bus service there.
- No public car parks in the area – parking to be provided as part of the development.
- There will be a requirement to accommodate a substantial level of car parking, greater than is currently provided for the existing use and probably greater than on a city centre site; not only for those who drive to the existing hospital but also to accommodate those who will now prefer to drive to this more remote location rather than to walk or take public transport. This would be contrary to the aims and goals of both the Island Plan and the Sustainable Transport Policy. The extent of parking will be determined in relation to agreed green travel policy and plans.

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5 Environment and Infrastructure

- The increased traffic, including emergency blue-light vehicles, generated by the new hospital location will generate additional noise and vibration to the adjacent areas, particularly to the nearby housing.
- Particular controls on the emissions from the new ventilation systems, energy centre plant and stand-by generator will be required.

6 Water resources

- Relatively sheltered, sloping site located to the north-west of Jersey's main water reservoir which is surrounded by trees. The reservoir is a popular walking / dog-walking location.
- Water: Infrastructure redundancy limited for high-pressure supplies. The existing main in the road would provide sufficient supply, however water storage on site needed
- Drainage: could have capacity issues - may need to carry out significant major upgrade of existing sewers to increase capacity or construct on-site water treatment plant.

7 Air Quality and Pollution

- The site is located in a rural area to the north-east of St. Helier with good air quality.
- The quality of the air is likely to be affected by the increased traffic demands.

8 Ground Conditions and Contamination

- As the main part of the site will be extensively developed with hard building and hard landscape features, careful consideration of surface water containment will be required to prevent localised flooding issues.
- Care will be required to ensure that there is no pollutant run-off from the site into the adjacent water reservoir.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

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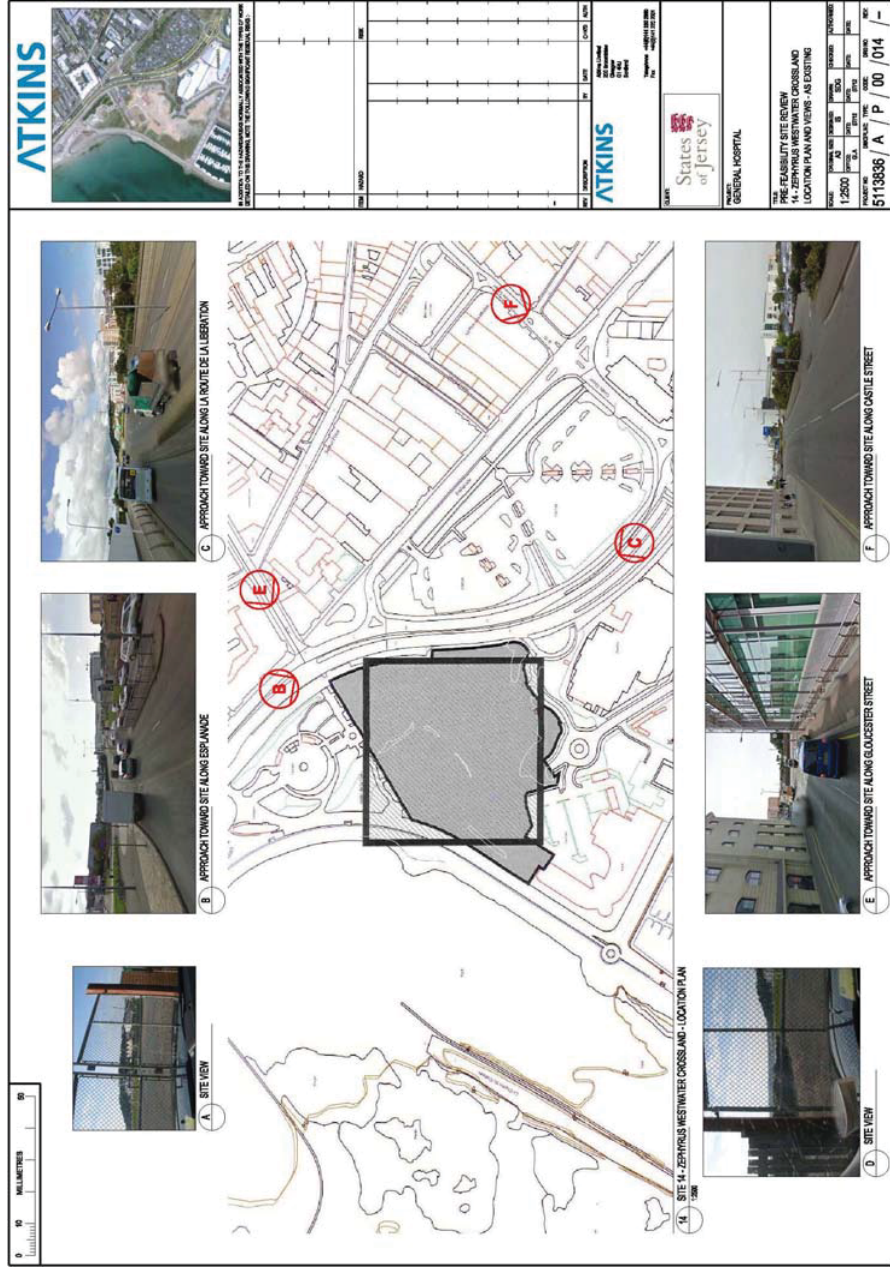
9 Waste Management

- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- All of the existing buildings will have to be demolished to clear the site for the new hospital development. Consider potential re-cycling of demolition materials.
- Contractor to minimise and recycle waste during demolition and construction.

10 Archaeology and Historical Buildings

- Heritage issues posed by the listed status of the 1868 Asylum building, its front lawn setting and the adjacent Queen's Farm - a new hospital could only be developed on the site of the existing asylum buildings and setting with the asylum building being demolished.
- There does not appear to be any properties of significant archaeological interest on this site but it is recommended that a desk-based assessment is carried out as part of a full EIA for this site.

Site 14: Zephyrus/Westwater/Crossland site



Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site	
Item:	Response:
Site 04: Esplanade Car Park	
Size:	19,500 sqm
Location:	In St Helier, with good access and road links.
Topology:	Flat site on reclaimed land
Ownership:	Owned by the States of Jersey Development Company
Availability:	Technically available, though longstanding plans have been in place for the development of a financial district on the site since 2004.
Usage:	Current use as a car-park, though it has been identified as the island's new financial district and is identified as a site for high value business district in St Helier.
Requirements:	Requirements could fit on the site, though most of the site would be occupied with a multi-storey development.
Planning	<p>Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan which proposes the development of a new financial district for St Helier, comprising office accommodation with some residential and retail.</p> <p>A masterplan for the site as a financial district has been approved and has an outline planning permit for the development.</p> <p>A detailed planning application is scheduled to be submitted in August 2012.</p>
Public Acceptability	Developing a public building on a high profile and valuable site is likely to be politically contentious.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

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Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site	
Item:	Response:
Cost / Value:	Significant alternative value to the States of Jersey. In addition this development is thought to have significant value to the local economy.
Information Available:	Masterplans, outline planning and site surveys available from the States of Jersey Development Company.
Other Issues:	This site should be considered in conjunction with site No 14, which is adjacent and has been identified as the site to accommodate temporary parking for c.500 cars during the development of Esplanade Quarter.
Site 14: Zephyrus/Westwater/Crossland site (Waterfront site)	
Item:	Response:
Size:	19,668sqm
Location:	In St Helier, with good access and road links.
Topology:	Flat site on reclaimed land.
Ownership:	Owned by the States of Jersey Development Company.
Availability:	Technically available.
Usage:	Initially it is planned to use the site for the temporary decant of car parking when the Esplanade site is redeveloped. It is currently planned as a residential area, with c500 units of accommodation.
Requirements:	Could meet area requirements possibly within a 3 storey building.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

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Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site	
Item:	Response:
Planning	Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan (identified as residential).
Public Acceptability	Possibly, though the site could make a significant contribution to the provision of housing in the Island which would reduce pressure on the countryside.
Cost / Value:	Significant site value and value as use as temporary car park.
Information Available:	Masterplan and outline planning information through SoJDC
Other Issues:	Due to the linkages between the sites, this site must be considered with the Esplanade site (No 5)
1.0 Massing and Planning Issues:	
1.4 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:	Both sites each have an area just under 20,000m ² and, individually as such, are neither capable of accommodating a new acute hospital and all its support facilities (car parking and the like) on their own. Taken together, with a total site area of approximately 39,168m ² , an acute hospital could be developed on the combined sites but they would have to be more intensively and densely developed than on a larger, more open site. This, however, may be in keeping with the urban setting.
<ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 	

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Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site	
Item:	Response:
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	Accords with Island Plan spatial strategy and healthcare facility policy but challenges the St. Helier Waterfront Masterplan which proposes the development of a new financial district for St Helier, comprising office accommodation with some residential and retail on the Esplanade car park site (site 4) and residential on the Waterfront site (site 14).
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	A masterplan for the site as a financial district has been approved and has an outline planning permit for the development. A detailed planning application is scheduled to be submitted in August 2012.
1.4 The site requirement for the total hospital development should be immediately available.	
2.0 Transport and Access Issues:	
2.1 The site should afford ease of access to the majority of the island's population.	The site is located within St. Helier and close to approximately 70% of the island's population.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site		
Item:	Response:	
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	Transport links and access are excellent although there would be challenges to get appropriate pedestrian access to site 14 and links between the two sites. The sites are located in the centre of St. Helier adjacent to the gyratory road network that facilitates traffic coming into and leaving St. Helier from the east and the west. Also the radial arterial routes from the north of the island converge in this area.	
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	There are a total of 19 different bus routes around Jersey, all of which leave from Liberation Station bus depot in St Helier, which is located on the next site to the east of site 4.	
2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	Currently, there are approximately 525 car parking spaces on the Esplanade car park (site 4) and, these together with the car parking requirements for the new hospital would have to be catered for in the new development, probably by way of basement parking or the provision of a new multi-storey car park.	
2.5 The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	The sites are located in the centre of St. Helier adjacent to the gyratory road network that facilitates traffic coming into and leaving St. Helier from the east and the west. Also the radial arterial routes from the north of the island converge in this area. These sites are still close to the ambulance and fire service depots in Rouge Bouillon, less than 1km away, but there are issues with congestion at times in this area.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site		
Item:	Response:	
<p>2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows:</p> <ul style="list-style-type: none"> • Staff, patients and visitors; • Ambulances to A&E; • FM deliveries and waste removal to/from service yard. 	<p>There are sufficient opportunities around the perimeter of both sites away from the gyratory road network to facilitate separate entrances for the different traffic flows.</p>	
3.0 Infrastructure and Geography:		
<p>3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider:</p> <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 	<p>The sites are located on reclaimed coastal land on the edge of St. Helier and are exposed to the prevailing westerly and southerly winds; this will need to be taken into account in the construction specifications and detailing.</p>	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site	
Item:	Response:
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> • Power (electricity); • Water; • Drainage 	<p>Apparently there are a lot of mains utility services in this area.</p> <p>Power (Electricity):</p> <ul style="list-style-type: none"> • 11kV sub-station in this area with good supply capacity. • Other sub-station options in the city centre area. <p>Water:</p> <ul style="list-style-type: none"> • Esplanade car park (Site 04): Water Infrastructure surrounding the Esplanade car park site is good with large bore trunk-main pipework to the north-east providing an adequate supply. In unusual circumstances the 15" trunk main is the only main feed to the area and it might be prudent to store some water on site to ensure continuous supplies in the event of emergency. • Waterfront site (Site 14): Water Infrastructure surrounding the site is good with a large bore trunk-main pipe to the north-east providing an adequate supply. To provide additional security of supply, a 12" trunk main is available to the north, which would require a large road crossing to bring the water to site. <p>Drainage:</p> <ul style="list-style-type: none"> • The main trunk sewer runs along under Esplanade Road which offers the opportunity for connection (as do electricity and gas). Capacity is OK. • Flooding risk in this area is possible.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site		
Item:	Response:	
4.0 Clinical and Non-clinical Support:		
4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)	The total area of both sites combined is large enough to accommodate a new replacement acute hospital although neither site is large enough on its own to house all the facilities. It is anticipated that one site will be developed for the main acute clinical services and will be connected by bridge links over and/or tunnels under the gyratory road which bisects both sites, to the other site which would accommodate support FM services and car parking. Currently, CSSD, Stores and Laundry are located remotely on a site at Five Oaks and, although they could perhaps be relocated to the new site, it is anticipated that they would remain in their existing location.	
5.0 Clinical Care and Patient Related Issues:		
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	Due to the restricted area of both of the individual sites, it will not be possible provide all the preferred ground floor accommodation at that level on either site. Therefore some compromise on clinical adjacencies will be required where some accommodation will have to be placed on the first floor.	
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	Being a city centre site, enclosed by roads or adjacent properties, there will be limited opportunities to expand the facilities within the boundaries of whichever site accommodates the main hospital building. Consequently, it may be necessary to consider incorporating internal 'shell space' which is not fitted out to facilitate future expansion in critical areas such as imaging and OT. It may be possible to add further floors to some areas if the structure and services' infrastructure is designed in such a way from the outset to facilitate such future construction.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site		
Item:	Response:	
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	The combined sites are large enough to design and construct a hospital to accommodate the required key functional content and to current space standards but, due to the restricted area to both sites individually, it may not be possible to attain the preferred clinical relationships between some of the departments.	
5.4 Quality of patient environment including views and social spaces	The sites are located on the coastal edge of St. Helier and should offer excellent opportunities for obtaining views out over the waterfront. In a new development social spaces will be included for the benefit of staff, patients and visitors alike. In addition, the sites are close to the commercial centre of St. Helier which will provide additional benefits and opportunities for staff and visitors in close proximity to the new hospital.	
5.5 Convenience of access for friends, family and visitors and access to town facilities.	Transport links and access are excellent with the rest of the island. Convenient to shops, banks, restaurants.	
6.0 Staffing and Support:		
6.1 The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site. The new hospital is closer to the centre of town and its commercial and social amenities and to the main bus station at Liberty Station for public transport. Providing that car parking is catered for, this site should be attractive to the staff and beneficial to their morale.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

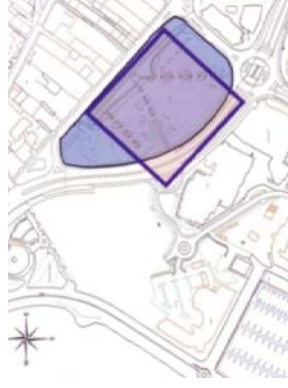
Appendix 2: Economic Case Date: 14th October 2013

Site 04: Esplanade Car Park, and Site 14: Zephyrus/Westwater/Crossland site	
Item:	Response:
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	The new hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities in a central location close to the existing hospital which should offer greater opportunities to attract and retain staff.
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	This is a town centre site close to business and social areas and, as a result, its security should benefit from general activity and policing in the area
7.0 Construction and Buildability:	
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	Both these sites are vacant and close to excellent transport links. Due to being located on reclaimed land close to the waterfront, any basement works will require careful specification and detailing. There are apparently lots of building services in this area which may have to be diverted.
7.2 Access to site for construction vehicles, deliveries and waste removal	Both these sites are close to excellent transport links.
7.3 Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little to disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.

Site 04 and 14: Esplanade Car Park and Zephyrus/Westwater/Crossland site: Environmental Assessment Information



Existing (Site 14)



(Site 04)



Proposed

1. Planning and Land Use

- Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan.
- Sites have been identified by Jersey Development Company as key development opportunities for enhanced financial services. A detailed planning application for a financial district development is scheduled to be submitted in August 2012.
- Adjacent beach and gardens heavily used in the summer. Area used for annual 'Battle of Britain' celebrations - noisy aircraft.
- Anti-social behaviour at night-time from nearby social areas around Liberation Square.

2. Biodiversity and Nature Conservation

- Site 04, the Esplanade Car Park site, has mature shrub and tree planting around the perimeter of the site and alongside pedestrian routes throughout the car park.
- Site 14, the Waterfront site, is a flat, undeveloped site on reclaimed land.

- There will be an initial loss of habitat on the car park site but this may be mitigated by new landscape proposals associated with the new development. However, a site survey of flora and fauna should be carried out at the next stage to identify specific species present on site and if there are habitats on the site which support breeding, roosting and/or hibernation, for example for bats and nesting birds.
- 3. Landscape and Visual**
- Good, open outlook to the south and west over the coast.
 - A new hospital development with a floor area of approximately 60,000m² spread over four or five floors will have a significant impact on the character of the surrounding townscape.
 - A new hospital development on this site will severely restrict the existing outlook from the premises along the old Esplanade.
- 4. Traffic, Transport and Access**
- Sites 4, and 14 are excellent from a Transport point of view being on the main East-West transport corridor for vehicular traffic, at the centre of the existing and developing cycle routes and being virtually on all island bus services by way of being very close to the Transportation Centre (approximately 200m) and on the route of many bus services serving the west of the Island. Public transport access into the site should be considered.
 - At centre of St. Helier. All roads radiate out of St. Helier from this area. Dual-carriageway gyratory underpass separates the two sites. The roads can get grid-locked.
 - Bus services excellent – all services throughout the island terminate at adjacent Liberation Station. Potential for more people switching from cars to public transport
 - The linking of the two sites would likely necessitate the re-grading (lowering) of the dual carriageway.
 - The current 525 car parking spaces would have to be re-provided in addition to any hospital parking requirement. The likelihood is that this would have to be provided in one or two levels of basement parking.
- 5. Noise and Vibration**
- The increased traffic, including emergency blue-light vehicles, generated by the new hospital location will generate additional noise and vibration to the adjacent areas, particularly to the nearby housing and hotel.

6. Water Resources

- Water Infrastructure is good. May be prudent to store water on site in the event of an emergency. To provide additional security of supply to the Waterfront site (Site 14) a new connection to the water main running along the Esplanade may entail a large road crossing.
- The drainage capacity is considered satisfactory for the envisaged development

7. Air Quality and Pollution

- Sites adjacent to the coast and exposed to southerly and westerly gales.
- Existing air quality affected by La Rue de la Liberation, the dual carriageway which separates the two sites.

8. Ground Conditions and Contamination

- Both these sites are on reclaimed ground very close to the shore.
- It is thought that the reclaimed ground may have been made up from mixed contaminated material. Site investigations to be carried out to verify the nature of the ground material.
- The water table will be high and extensive tanking will be required to any basement construction.
- Areas around are prone to flooding; perhaps more from back-up of drains than sea breaching the esplanade walls.

9. Waste Management

- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- Consider potential re-cycling of any demolition materials.
- Contractor to minimise waste during construction.

10. Archaeology and Historical Buildings

- The original esplanade sea wall forms the northern boundary of the car park site.
- As these sites are on reclaimed ground, there are no other apparent issues relating to historic buildings or archaeological interest on these sites.

Hospital Pre Feasibility Spatial Assessment Project

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2.3.1.5 Site 08: Land at Airport (fields to the south)



Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 08: Land at Airport (fields to the south)	
Item:	Response:
Size:	34,500sqm (Playing field: 22,923, Fields 47 & 48: 9,824, Fields 24 to 27: 17,701)
Location:	Out of town at the airport to the west of the Island
Topology:	Flat sites, though the site is next to a fuel farm.
Ownership:	States of Jersey, though the land is likely to be transferred to the new incorporated Ports Authority.
Availability:	Available
Usage:	Part of site in use as a playing field
Requirements:	Site is large enough to meet requirements and contain the volume required. The key issue would be about location out of town and transport, parking etc.
Planning	Site is within the Green Zone and does not accord with Island Plan spatial strategy. Playing fields are Protected Open Space and Airport Fuel Depot, to the north, is a hazardous installation the safety zones for which may have implications. Traffic and landscape impacts will also be key material considerations.
Public Acceptability	Likely to be an issue with distance from town.
Cost / Value:	The land forms part of the Port Authority business case for incorporation. It is currently anticipated that this land would be developed by the Port Authority. The nearby fuel farm may have to be relocated.
Information Available:	
Other Issues:	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 08: Land at Airport (fields to the south)	
Item:	Response:
1.0 Massing and Planning Issues:	
<p>1.5 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:</p> <ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 	<p>At approximately 34, 500m² the site is just about large enough to meet the building and associated access, parking and service yard requirements and contain the volume required whilst leaving space for potential future expansion and amenity space for courtyards and surrounding areas.</p>
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	The site is within the Green Zone and does not accord with Island Plan spatial strategy.
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	The playing fields are Protected Open Space and Airport Fuel Depot, to the north, is a hazardous installation the safety zones for which may have implications.
1.4 The site requirement for the total hospital development should be immediately available.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 08: Land at Airport (fields to the south)		
Item:	Response:	
2.0 Transport and Access Issues:		
2.1 The site should afford ease of access to the majority of the island's population.	The site is located to the west of the island adjacent to the airport and close to a sizeable population in St Brelade (parish population of approximately 10,000) and with reasonably good road and bus transport links to St. Helier although there are bottlenecks on the road between the airport and St. Helier with no scope to improve.	
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	There are bottlenecks at the junction at Beaumont on the road to the airport from St. Helier with no scope to improve.	
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	At present Bus Service 15 from Liberation Station in St. Helier serves the airport, passing the proposed site en-route, and carries on to St. Peter's Village. There are other bus routes in the area, numbers 9, 12, 12a and two Island Explorers to Jersey Pearl but none of these pass the airport site. If the number 15 service was extended slightly further to the north, it could link up with the Island Explorer routes to Durrell which would provide a connection to those living in the north and east of the island; otherwise, bus travellers would be required to go into St. Helier and change to the number 15 service.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

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Site 08: Land at Airport (fields to the south)	
Item:	Response:
<p>2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider:</p> <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	<p>There are no public car parks in the immediate vicinity of the site and, as a consequence, appropriate parking will be required to be provided on site. It is likely that this will need careful control to avoid it being used for non-hospital purposes.</p>
<p>2.5 The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.</p>	<p>Although there is a local unmanned fire station located on the La Route des Quennevais, St Brelade, the main fire station and ambulance depot are both located on the west side of St. Helier with local transport issues as noted above. The Fire Service also confirmed that there is a major issue with siting the hospital adjacent to the fuel farm which would not be permitted - if the hospital was to be sited here, the fuel farm would have to be moved as the risk to the hospital would be too great if the fuel farm went on fire.</p>
<p>2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows:</p> <ul style="list-style-type: none"> Staff, patients and visitors; Ambulances to A&E; FM deliveries and waste removal to/from service yard. <p>o</p>	<p>The site is bordered on three sides by roads giving ample opportunity for segregating traffic flows and entrances.</p>

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

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Site 08: Land at Airport (fields to the south)	
Item:	Response:
3.0 Infrastructure and Geography:	
<p>3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment.</p> <p>Consider:</p> <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 	<p>The site is exposed to the prevailing westerly winds and this will need to be taken into account in the construction specifications and detailing.</p> <p>The playing fields are protected open space - replacement playing fields may have to be provided elsewhere.</p> <p>Noise and fuel smells from the airport and fuel farm may be an issue.</p>
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> • Power (electricity); • Water; • Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> • There is a new primary sub-station with spare capacity to cope with a new hospital in the airport area. <p>Water:</p> <ul style="list-style-type: none"> • Water Infrastructure surrounding the site is good with large bore trunk-main pipework to the east providing an adequate supply. In unusual circumstances the trunk main is the only main feed to the area and it might be prudent to store some water on site to ensure continuous supplies in the event of emergency. The other smaller diameter pipework in the area is all fed from the trunk main. <p>Drainage:</p> <ul style="list-style-type: none"> • Could have capacity issues - may need either to carry out significant major upgrade of existing sewers to increase capacity or to construct an on-site water treatment plant for the development.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 08: Land at Airport (fields to the south)	
Item:	Response:
4.0 Clinical and Non-clinical Support:	
4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)	The site is large enough to accommodate the upgraded reprovision of the existing hospital services and associated support facilities but is unlikely to have sufficient space to accommodate the relocation of the support CSSD, Stores and Laundry which are currently located remotely on a site at Five Oaks without, perhaps compromising potential future expansion space. .
5.0 Clinical Care and Patient Related Issues:	
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	The site is large enough to accommodate the 20,000 square metres of preferred ground floor services.
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	The site is large enough to accommodate future expansion provision, say of 10%, of the gross floor area (approximately 6,000m ²).

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

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Site 08: Land at Airport (fields to the south)	
Item:	Response:
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	The site is large enough to design and construct a hospital to accommodate the required key functional content and to current space standards.
5.4 Quality of patient environment including views and social spaces	The site is located in a suburban, semi-rural setting with a good outlook all round. Noise and fuel smells from the airport and fuel farm may be an issue.
5.5 Convenience of access for friends, family and visitors and access to town facilities.	The site is further away than the existing hospital for those living in the St. Helier area and, in particular or those living in the east of the island. There is very limited, if not any, access to shops and other commercial facilities locally.
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	This site will not prove to be so convenient for staff who live in, or to the east of, St. Helier and this may be the source of some dissatisfaction but, for those who drive to work, it should make little difference as long as there is adequate parking provision. Once, however, the new facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.

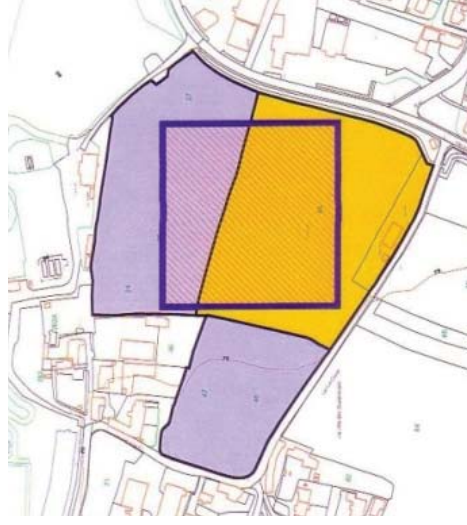
Hospital Pre Feasibility Spatial Assessment Project

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Site 08: Land at Airport (fields to the south)		
Item:	Response:	
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	The site is a lot more isolated than the existing town centre site, although it is adjacent to a residential areas and to the airport. 'Secure by Design' principles should be incorporate into the design proposals to minimise security issues of access and car park security.	
7.0 Construction and Buildability:		
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	Alternative playing field provision may have to be found elsewhere. Once these facilities have been cleared, the site will have unrestricted availability for the construction of the new hospital.	
7.2 Access to site for construction vehicles, deliveries and waste removal	All vehicular traffic travelling from St Helier will be affected by the congestion at the junction at Beumont. Thereafter the route to the site is via smaller country roads with implications on travelling time and which may cause difficulty for some larger construction and delivery vehicles.	
7.3 Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.	

Site 08: Airport Land: Environmental Assessment Information



Existing Proposed

1 Planning and Land Use:

- Flat, playing field site adjacent to the airport at the western end of the island. Close to sizeable population in St. Bredale.
- Site is of sufficient area for the new hospital. There may be airport restrictions on the maximum number of storeys.
- Site is within the Green Zone and does not accord with the Island Plan strategy.
- Playing fields are Protected Open Space.
- Airport Fuel Depot to the immediate north is a hazardous installation - would have to be relocated away from the hospital.
- Holiday village and golf course to the west.

2 Biodiversity and Nature Conservation:

- The site comprises a combination of sports playing fields and general grassed fields with some small areas of shrubs around the margins.
- This site will become intensively developed with a large hospital building, but the existing site holds little of biodiversity and natural history interest. However, a site survey of flora and fauna should be carried out at the next stage to identify specific species present on site and if there are habitats on the site which support breeding, roosting and/or hibernation, for example for bats and nesting birds.

3 Landscape and Visual:

- Good, open outlook to the south and west towards the coast, but exposed to prevailing winds.
- A new hospital development with a floor area of approximately 60,000m² spread over four or five floors will have a significant impact on the character of the surrounding townscape.

4 Traffic, Transport and Access:

- Reasonable transport links with St. Helier - bottlenecks on road at Beaumont junction with no scope for improvement.
- Bus service from St. Helier may need to be improved in capacity / frequency.
- No public car parks in the area - parking to be provided as part of the development.
- There will be a requirement to accommodate a substantial level of car parking, greater than is currently provided for the existing use and probably greater than on the existing city centre hospital site; not only for those who drive to the existing hospital but also to accommodate those who will now prefer to drive to this more remote location rather than to walk or take public transport. This would be contrary to the aims and goals of both the Island Plan and the Sustainable Transport Policy. The extent of parking will be determined in relation to agreed green travel policy and plans.

5 Noise and Vibration:

- Noise from aircraft landing at, and taking off from, the nearby airport runway.
- The increased traffic, including emergency blue-light vehicles, generated by the new hospital location will generate additional noise and vibration to the adjacent areas, particularly to the nearby housing and hotel.

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- 6 **Water Resources:**
 - Water: Water Infrastructure is good. May be prudent to store water on site in the event of emergency.
 - Drainage: could have capacity issues - may need to carry out significant major upgrade of existing sewers to increase capacity or construct on-site water treatment plant.
- 7 **Air Quality and Pollution**
 - Site open on all sides – good outlook, but exposure to prevailing winds.
 - Aviation fuel smells from nearby airport and fuel farm.
- 8 **Ground Conditions and Contamination**
 - As the main part of the site will be extensively developed with hard building and hard landscape features, careful consideration of surface water containment will be required to prevent localised flooding issues.
- 9 **Waste Management**
 - The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
 - Contractor to minimise waste during construction.
- 10 **Archaeology and Historical Buildings**
 - There are no other apparent issues relating to historic buildings or archaeological interest on these sites.

Hospital Pre Feasibility Spatial Assessment Project

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Appendix 2: Economic Case Date: 14th October 2013

Site 10: Warwick Farm	
Item:	Response:
Size:	54,123sqm
Location:	Out of town to the north.
Topology:	Relatively flat site which slopes away. A Parish road bisects the site.
Ownership:	States of Jersey owned
Availability:	Could be available within the timescales, though TTS operations would have to be relocated.
Usage:	Currently used by the Transport and Technical Services Department as a nursery, though the operation has been scaled down in recent years.
Requirements:	Could meet the requirements in area terms, though likely to require a large building outside town.
Planning	Site is within the Green Zone and does not accord with Island Plan spatial strategy. Traffic and landscape impacts will also be key material considerations. A German storage building on the site has heritage status.
Public Acceptability	Possible issue with out of town location and building in the green zone.
Cost / Value:	
Information Available:	Information about the current operations from the TTS department, about the site through Jersey Property Holdings.
Other Issues:	A small part of the site has a covenant on it preventing building.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 10: Warwick Farm		
Item:		Response:
1.0 Massing and Planning Issues:		
<p>1.6 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:</p> <ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 		<p>The site has an overall area of approximately 54,123m² which would be sufficient to accommodate easily a ground floor footprint in the region of 20,000m² along with associated FM service buildings and service yards, surface car parks and setting-down areas, whilst leaving open spaces for public realm and general landscaping and the potential for future expansion.</p> <p>However, the site as exists is split into three distinct sections by a narrow, speed restricted, parish road, La Fredee Ln. To establish a self-contained site area large enough to accommodate the hospital development will entail diverting the section of the parish road which runs on an east-west axis towards the A9, Le Grande Route de Saint-Jean, by extending the parish road northwards along the eastern perimeter of the site to meet the Rue des Arbres. This would have the effect of bisecting the site on a north-south axis instead of on the existing east-west axis, thus separating the eastern section of the site and leaving a useable site area for building purposes of the order of 45,000m². This should be sufficient to accommodate the new hospital. If necessary, some of the support accommodation and car parking could be located on the eastern parcels of the site.</p>
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.		The site is within the Green Zone and does not accord with Island Plan spatial strategy.
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage		<p>A German storage building which has heritage status is on the site.</p> <p>A small part of the site has a covenant on it preventing building.</p> <p>Need to re-provide TTS nurseries elsewhere.</p>

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 10: Warwick Farm	
Item:	Response:
1.4 The site requirement for the total hospital development should be immediately available.	
2.0 Transport and Access Issues:	
2.1 The site should afford ease of access to the majority of the island's population.	The site is located approximately 2.5km north of St. Helier on the A9, one of the main arterial roads radiating out of St. Helier. Consequently, it is still close to the main centre of population on the island but is located out of the town in the country.
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	<ul style="list-style-type: none"> Road capacity is good, but the Queens Road roundabout is a bottleneck. This would require a trip generation study to determine if there are issues. There is a 'green lane' bisecting the site which gives priority to pedestrians but SoJ TTS have suggested that this could be moved.
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	The Number 5 bus service passes through the area, commencing its route at Liberation Station in St. Helier, carrying on to the central northern section of the island, linking with other bus routes there. Additional buses which would probably be required to meet demand and which may not carry on northwards but return to Liberation Station in St. Helier would probably have to enter and turn in the grounds. Bus travellers from the east and west ends of the island would probably have to travel into St. Helier and change to the Number 5 service at Liberation Station.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 10: Warwick Farm	
Item:	Response:
<p>2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider:</p> <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	<p>There are no public car parks in the immediate vicinity of the proposed site and, consequently, the appropriate car parking provision will have to be included in the site development proposals. This is an isolated country site remote from any large residential area and, as a consequence, virtually everyone is likely to travel by car or public transport; there are only likely to be a few pedestrians from nearby houses.</p>
<p>2.5 The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.</p>	<p>Road capacity leading northwards from St. Helier is good, but the Queens Road roundabout is a bottleneck. The ambulance and fire service depots are located on Rouge Bouillon which leads on to Queens Road, approximately 2km from the site. Fire Service confirmed access OK.</p>
<p>2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows:</p> <ul style="list-style-type: none"> Staff, patients and visitors; Ambulances to A&E; FM deliveries and waste removal to/from service yard. <p>o</p>	<p>The site is bordered by the main A9 arterial road to the west and the Rue des Arbres to the north, both of which will offer opportunities to create separate entrances into the site to cater for the different traffic flows.</p>

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 10: Warwick Farm		
Item:		Response:
3.0 Infrastructure and Geography:		
<p>3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider:</p> <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 		<p>The site is located in a relatively sheltered area in the centre of the island away from the coast, and is unlikely to be susceptible to extreme exposure to the westerly and southerly prevailing winds.</p> <p>There are a number of trees growing in the central area of the site, many of which would require to be removed to provide sufficient clear area for the new hospital - integrated landscape proposals would probably be required to compensate for their loss.</p>
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> • Power (electricity); • Water; • Drainage 		<p>Power (Electricity):</p> <ul style="list-style-type: none"> • Only one 11kV supplies up Queens Road to the site and it is at the limit of its capacity. It would be difficult to provide a dual 11kV for security of supply to the site. <p>Water:</p> <ul style="list-style-type: none"> • Water Infrastructure surrounding the site is limited. The 150mm pipework to the west is already close to capacity point at peak times during the day. The other smaller diameter pipework in the area is fed off the existing 150mm pipe running down La Grande Route de St Jean. A more detailed study might be needed, if this site is selected, to ensure that adequate supply can be provided. Approximate water requirements would be required and a main reinforcement could be needed to make this site work. <p>Drainage:</p> <ul style="list-style-type: none"> • Sewer adjacent to the site with capacity.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 10: Warwick Farm	
Item:	Response:
4.0 Clinical and Non-clinical Support:	
4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)	The main site to the west of the parish road is large enough to accommodate the upgraded reprovision of the existing hospital services but also, if necessary, the relocation of the support CSSD, Stores and Laundry, which are currently located remotely on a site at Five Oaks, could probably be accommodated on the eastern, smaller site, although there is a reasonable main orbital road link between Five Oaks and the site which does not involve entering the centre of St. Helier.
5.0 Clinical Care and Patient Related Issues:	
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	The site is large enough to accommodate the 20,000 square metres of preferred ground floor services.
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	The site is large enough to accommodate future expansion provision, say of 10%, of the gross floor area (approximately 6,000m ²).

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 10: Warwick Farm	
Item:	Response:
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	The site is large enough to design and construct a hospital to accommodate the required key functional content and to current space standards.
5.4 Quality of patient environment including views and social spaces	The site is located in a rural, farming area and good outlooks should be available over mature landscape around the reservoir and over fields.
5.5 Convenience of access for friends, family and visitors and access to town facilities.	The site is located approximately 2.5km north of St. Helier on the A9, one of the main arterial roads radiating out of St. Helier. Consequently, it is still close to the main centre of population on the island but is located out of the town in the country. There is very limited, if not any, access to shops and other commercial facilities locally.
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	This site will not prove to be so convenient for staff who live in, or to the west of, St. Helier and this may be the source of some dissatisfaction but, for those who drive to work, it should make little difference as long as there is adequate parking provision. Once, however, the new facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 10: Warwick Farm		
Item:	Response:	
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	The site is a lot more isolated than the existing town centre site and, although it is adjacent to a small residential area, 'Secure by Design' principles should be incorporated into the design proposals to minimise security issues of access and car park security.	
7.0 Construction and Buildability:		
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	The existing parish road will require to be diverted at the start of the works to maintain access to the residential property landlocked within the eastern part of the site. Once the nursery glasshouses and associated buildings have been demolished and the site cleared, unobstructed construction of the new hospital can commence.	
7.2 Access to site for construction vehicles, deliveries and waste removal	All vehicular traffic travelling from St Helier will be affected by the Queens Road roundabout. Thereafter the route to the site is via a radial country road with implications on travelling time and which may cause difficulty for some larger construction and delivery vehicles.	
7.3 Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.	

Site 10: Warwick Farm, St. Helier: Environmental Assessment



Information

Existing Proposed

1 Planning and Land Use

- Out of town site approximately 2.5km to the north of St. Helier accessed from the A9 arterial road from St. Helier. At Queen's Road, this route gets congested.
- Site is within the Green Zone and does not accord with the Island Plan spatial strategy. A small part of the site has a covenant on it preventing building.
- A German storage building on the site has heritage status.
- Site currently occupied by TTS nurseries - being scaled down but may have to be relocated
- Site is split by a Parish 'green lane' which would have to be diverted to provide sufficient, uninterrupted site area.

- Transport and landscape will be key issues
- 2 **Biodiversity and Nature Conservation**
- The site is currently owned by TTS and partly used as a plant nursery with large greenhouses and associated staff facilities and partly for the storage of salt and the garaging of TTS vehicles.
 - There is extensive open space and mature landscaping around and within the site.
 - There will be an initial loss of habitat on this site but this may be mitigated by new landscape proposals associated with the new development. However, a site survey of flora and fauna should be carried out at the next stage to identify specific species present on site and if there are habitats on the site which support breeding, roosting and/or hibernation, for example for bats and nesting birds.
- 3 **Landscape and Visual**
- There is extensive open space and mature landscaping around and within the site.
 - The construction of a new large hospital will change the character and visual outlook of this site.
- 4 **Traffic, Transport and Access**
- Major increase in transport demand will come from staff, patients, visitors and Facilities Management (FM).
 - Unlike the existing site which is within walking distance of large numbers of units of accommodation and close to an extensive bus network, this site is beyond walking distance from all but a very few houses on the north western outskirts of the St Helier conurbation, and is currently served by only one bus service.
 - Most journeys are likely to approach from St. Helier to the south, on a network that is already congested at peak times and has a limited capacity at others.
 - The road south of Warwick Farm is a single carriageway road with known capacity issues at times at Motormall, the entrance to the JEC retail park, the Clarke Avenue junction and the connection to the north west corner of the ring road. This section of the ring road is already congested at peak times. There are no obvious network capacity improvements that would accommodate the anticipated increased demand.
 - There will be a requirement to accommodate a substantial level of car parking, probably greater than on a city centre site; not only for those who drive to the existing hospital but also to accommodate those who will now prefer to drive to this more remote

location rather than to walk or take public transport. This would be contrary to the aims and goals of both the Island Plan and the Sustainable Transport Policy.

5 Noise and Vibration

- The increased traffic, including emergency blue-light vehicles, generated by the new hospital location will generate additional noise and vibration to the adjacent areas, particularly to the nearby housing.
- Particular controls on the emissions from the new ventilation systems, energy centre plant and stand-by generator will be required.

6 Water Resources

- Water Infrastructure surrounding the site is limited, and close to capacity at peak times. A main reinforcement could be needed to make this site work.
- The drainage capacity is considered satisfactory for the envisaged development.

7 Air Quality and Pollution

- The site is located in a rural area to the north of St. Helier with good air quality.
- The quality of the air is likely to be affected by the increased traffic demands.

8 Ground Conditions and Contamination

- As the main part of the site will be extensively developed with hard building and hard landscape features, careful consideration of surface water containment will be required to prevent localised flooding issues.
- Consider also whether the ground has been contaminated with the use of herbicides and fertilisers during the site's use as a nursery.

9 Waste Management

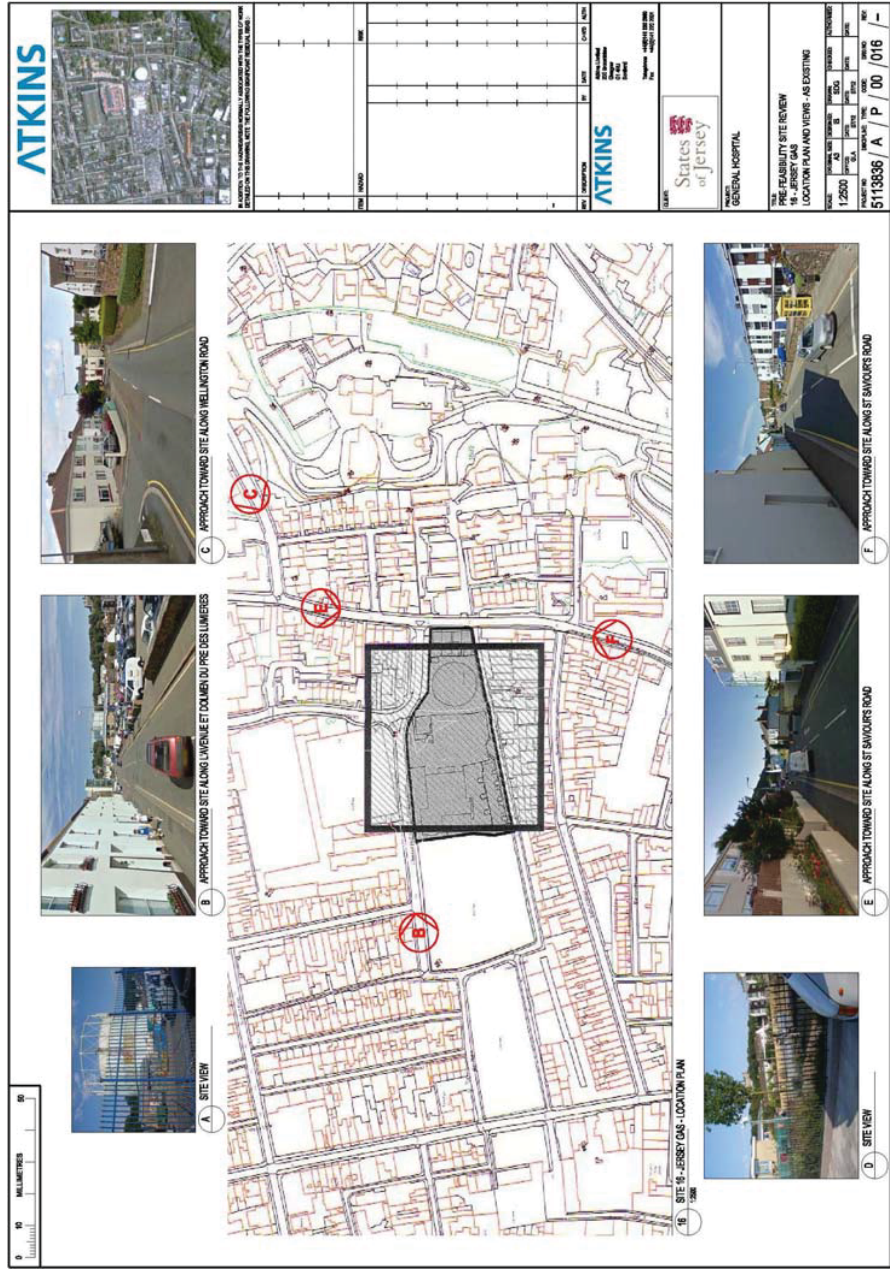
- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- Consider potential re-cycling of demolition materials.
- Contractor to minimise waste during construction.

10 Archaeology and Historical Buildings

- There are two occupation structures (Ref. HE1711), two concrete German storage buildings on the site of Field 1274 which have heritage status, but only one of these is protected.
- In addition, there are listed 'properties' on nearby Field 1172, but outwith the boundaries of the site, comprising a 'menhir' - a standing stone, and an indication of earlier settlement, all of which indicate that this area is likely to have archaeological interest.
- It is recommended that a desk-based assessment of this site is carried out as part of the full EIA for this site.

2.3.1.7

Site 16: Jersey Gas Site, Tunnel Street, St. Helier.



Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Size:	9,468sqm
Location:	On the edge of the town, next to the ring-road.
Topology:	Flat site, brownfield.
Ownership:	Jersey Gas Company Ltd
Availability:	There would be a need to relocate the gas showroom and geometer and possibly remediate the site. The Gas Company are actively pursuing the vacation of the site to enable it to be developed for residential purposes. It is unclear whether this could be achieved within 3-5 years, but it could be ambitious.
Usage:	In use as Gas showroom as gasometer. This would have to be relocated as part of the project.
Requirements:	Likely to require a 6 storey building which would involve intense usage of the site. Not necessarily out of keeping with the area.
Planning	Accords with Island Plan spatial strategy and healthcare facility policy but challenges the North of Town Masterplan which identifies this site as a residential regeneration opportunity linked to the relocation of the Jersey Gas facility (including the hazardous installation) to La Collette plus requirement to provide up to 138 public parking spaces. Development of up to 24,000sq.m of residential development envisaged in the Masterplan, which remains to be tested in terms of townscape impact. Development brief suggests potential of 4-6 storey development, with feature building up to 8 storeys, could be accommodated. Heritage issues posed by archaeology (Listed place status for site of Dolmen du Pre des Luminieres and adjacent AAP) and Listed buildings at 1-4 Faux Bie Villas. Ground contamination also an issue.
Public Acceptability	Would not seem politically contentious, though the loss of a housing opportunity could be an issue.
Cost / Value:	The site would need to be acquired from the Jersey Gas Company.
Information Available:	Through the Jersey Gas Company. North of Town Masterplan.
Other Issues:	Land likely to be contaminated and would require archaeological survey.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

1.0	Massing and Planning Issues:	
1.7	<p>The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:</p> <ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 	<p>With a site area of only 9,468m² and deducting an allowance form this to cater for ambulance access, drop-off points, courtyards to bring daylight into otherwise deep-plan areas, it is unlikely that the ground floor building footprint area will exceed 8,000m² which, extended vertically, would require a minimum of eight storeys to provide c.60,000m² of accommodation, excluding any potential for expansion. In reality, it is likely that the footprint will be less than 8,000m² necessitating a greater number of floors.</p> <p>In addition, it will only be possible to provide approximately 40% of the preferred ground floor accommodation at that level, resulting in major compromises in the preferred clinical departmental relationships.</p> <p>For these reasons this site is not suitable for an acute hospital facility.</p>
1.2	The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	<p>Accords with Island Plan spatial strategy and healthcare facility policy but challenges the North of Town Masterplan which identifies this site as a residential regeneration opportunity linked to the relocation of the Jersey Gas facility (including the hazardous installation) to La Collette plus requirement to provide up to 138 public parking spaces.</p>
1.3	The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	Heritage issues posed by archaeology (Listed place status for site of Dolmen du Pre des Luminieres and adjacent AAP) and Listed buildings at 1-4 Faux Bie Villas.
1.4	The site requirement for the total hospital development should be immediately available.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case **Date: 14th October 2013**

2.0	Transport and Access Issues:	
2.1	The site should afford ease of access to the majority of the island's population.	The site is located within St. Helier and close to approximately 70% of the island's population.
2.2	The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	The site is located off the gyratory and St. Saviour's Road. Poor junction at Simon Place. There would be TA issues.
2.3	The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	Bus service numbers 3b, 4, 21 and 23 pass close to this site which serve the north-east area of the island. Bus travellers from other areas of the island would access the site via a change of bus at the Liberation Station.
2.4	There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	There is a multi-storey car park with 362 spaces on the north side of L'Avenue el Dolmen du Pre des Lumieres which borders the site on the north side, and an open air car park on the plot of ground immediately to the west.. The only possibility of providing additional car parking on the site would be by way of multi-storey basement car parking below the hospital.
2.5	The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	The site is located within the town centre and adjoining roads can be congested at times. Fire Service confirmed access is easy to this area. There is access locally to other amenities.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case **Date: 14th October 2013**

<p>2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows:</p> <ul style="list-style-type: none"> • Staff, patients and visitors; • Ambulances to A&E; • FM deliveries and waste removal to/from service yard. 	<p>The site is bordered by three roads which, theoretically, should allow for separation of entry points on to the site. However there will be very limited opportunities to bring vehicles onto and circulate within the site due to the intensive development of the site.</p>
<p>3.0 Infrastructure and Geography:</p>	
<p>3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider:</p> <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 	<p>Town centre site, but only approximately 600m from the shore. With an eight storey ward block, the upper four storeys and roof are higher than the adjacent buildings and are significantly more exposed to the weather. The prevailing wind direction in Jersey is predominantly from the west, but with winds also from the south and north-east.</p> <p>Ground contamination is an issue.</p>
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> • Power (electricity); • Water; • Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> • Struggling to provide capacity and security of a ring circuit in this area - probably not one 11kV supply, let alone two 11kV in a ring. <p>Water:</p> <ul style="list-style-type: none"> • . <p>Drainage:</p> <ul style="list-style-type: none"> • Potentially OK.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case **Date: 14th October 2013**

4.0 Clinical and Non-clinical Support:	
4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)	This is a very constricted, small site. If 8 to 10 floors were acceptable, then, it may be possible to provide c.60,000m ² of accommodation. However, there will be significant compromises in the departmental layouts and relationships due to the restricted floor area available on each floor.
5.0 Clinical Care and Patient Related Issues:	
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	This is a very constricted, small site. There will be compromises in the departmental layouts and relationships due to the restricted floor area available on each floor.
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	Unlikely to be possible unless empty shell space is accommodated in the design of each floor for fitting-out in the future.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case **Date: 14th October 2013**

5.3	The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	This is a very constricted, small site. There will be compromises in the departmental layouts and relationships due to the restricted floor area available on each floor.
5.4	Quality of patient environment including views and social spaces	Poor outlook from the lower floors.
5.5	Convenience of access for friends, family and visitors and access to town facilities.	As noted above, the existing hospital is located centrally within St. Helier in close proximity of approximately 70% of the island's population and close to main arterial roads converging on St. Helier with good public transport access from all parts of Jersey.
6.0	Staffing and Support:	
6.1	The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.
6.2	The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	This site may not prove to be so convenient for staff who live in the centre of St. Helier and currently walk to work and this may be the source of some dissatisfaction but, for those who drive to work, it should make little difference as long as there is adequate parking provision. Once, however, the new facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.
6.3	Staff, patient and visitor security relating to location and out-of-hours safety	This is a town centre site close to commercial and social areas and, as a result, its security should benefit from general activity and policing in the area.

Hospital Pre Feasibility Spatial Assessment Project

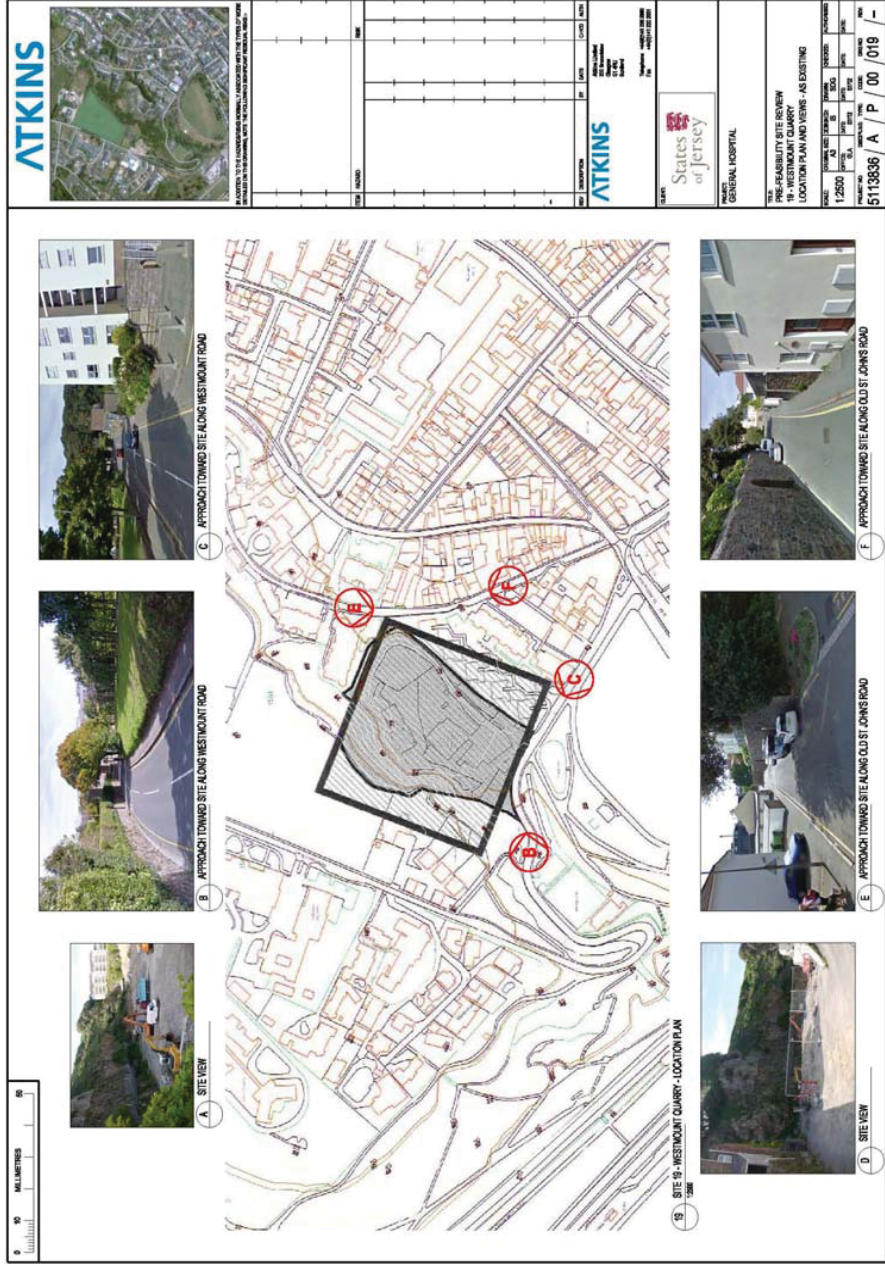
Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

7.0	Construction and Buildability:	
7.1	Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	Ground contamination is an issue from its current use as a gas depot.
7.2	Access to site for construction vehicles, deliveries and waste removal	The development would be situated on a constricted, town centre site and will present all the issues normally associated with developing such a constricted urban site, such as restricted delivery and waste removal times with adjacent narrow and, at times, congested roads.
7.3	Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.

Site 16: Environmental Assessment Information

As it was determined that the available area of the site was too small to accommodate the new hospital, an environmental assessment of the site was not carried out.



Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 19: Westmount Quarry, St. Helier	
Item:	Response:
Size:	13,004sqm
Location:	In a former quarry on the edge of St Helier
Topology:	In a quarry with high cliffs surrounding it.
Ownership:	Dandara
Availability:	Plans exist to develop the site for residential, some work is thought to have begun, but the status of the project is unclear (see below). Rockface remediation works, required by the planning permission, have been implemented.
Usage:	Future development for residential.
Requirements:	May meet the requirements in area terms with a 6 storey development, but the topology of the site may be a challenge.
Planning	<p>Planning permission granted for amended plans for redevelopment of former Parish depot and disused quarry to provide 196 residential apartments including 16 sheltered apartments, plus 60 bed nursing home and associated facilities, 60 place pre-school nursery and associated facilities, ground floor artists studio units, basement and covered ground level parking for 281 vehicles with associated plant and refuse areas. Alterations to existing vehicle entrance.</p> <p>Creation of new ground level public space to include improved access to protected cemetery, new landscaped residential amenity spaces and re-grading, stabilisation and re-planting of existing quarry faces. Accords with Island Plan spatial strategy and healthcare facility policy.</p> <p>Landscape impact and traffic impact likely to be key planning issues.</p> <p>Current scheme, with consent, goes up to 13 storeys.</p>

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 19: Westmount Quarry, St. Helier	
Item:	Response:
Public Acceptability	Unclear
Cost / Value:	Site would have to be acquired and could be of high value.
Information Available:	Planning Application.
Other Issues:	
1.0 Massing and Planning Issues:	
<p>1.8 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:</p> <ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 	<p>With a site area of only 13,004m² and deducting an allowance form this to cater for ambulance access, drop-off points, courtyards to bring daylight into otherwise deep-plan areas, it is unlikely that the ground floor building footprint area will exceed 12,000m² which, extended vertically, would require a minimum of five storeys to provide c.60,000m² of accommodation, excluding any potential for expansion. In reality, it is likely that the footprint will be less than 12,000m² necessitating a greater number of floors.</p> <p>In addition, it will only be possible to provide approximately 60% of the preferred ground floor accommodation at that level, resulting in major compromises in the preferred clinical departmental relationships.</p> <p>For these reasons this site is not suitable for an acute hospital facility.</p>
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	Accords with Island Plan spatial strategy and healthcare facility policy.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 19: Westmount Quarry, St. Helier	
Item:	Response:
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	<p>Planning permission granted for amended plans for redevelopment of former Parish depot and disused quarry to provide 196 residential apartments including 16 sheltered apartments, plus 60 bed nursing home and associated facilities, 60 place pre-school nursery and associated facilities, ground floor artists studio units, basement and covered ground level parking for 281 vehicles with associated plant and refuse areas. Alterations to existing vehicle entrance.</p> <p>Creation of new ground level public space to include improved access to protected cemetery, new landscaped residential amenity spaces and re-grading, stabilisation and re-planting of existing quarry faces.</p> <p>Landscape impact and traffic impact likely to be key planning issues.</p>
1.4 The site requirement for the total hospital development should be immediately available.	
2.0 Transport and Access Issues:	
2.1 The site should afford ease of access to the majority of the island's population.	The site is located within St. Helier and close to approximately 70% of the island's population.
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	Location close to the existing hospital, so the transport issues are common. Whilst the surrounding roads are all urban and some restricted in width, the site is located close to the main gyratory road structure which distributes traffic across and round St. Helier. There is good access westwards towards the airport and there are main roads radiating out from St. Helier to all parts of the island.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 19: Westmount Quarry, St. Helier		
Item:	Response:	
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	At present the site is only served by the number 19 bus service route, which is a very localised route from the centre of St. Helier. Most bus travellers coming in from other parts of St. Helier, or outlying areas of Jersey would require to take a bus into Liberation Station and change there to the number 19 bus service.	
2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	There is very limited public car parking in the vicinity. Additional parking would have to be provided on site, probably by way of multi-storey parking incorporated into the lower floors of the hospital.	
2.5 The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	The site is located within the town centre and adjoining roads can be congested at times. The topography of the site is very difficult with a substantial drop in ground levels from Westmount Road down into the quarry floor. Access issues for the Fire Service to this area due to the one-way system in the surrounding streets making access more difficult and time consuming, particularly at times of congestion.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 19: Westmount Quarry, St. Helier		
Item:	Response:	
<p>2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows:</p> <ul style="list-style-type: none"> • Staff, patients and visitors; • Ambulances to A&E; • FM deliveries and waste removal to/from service yard. 	<p>There is very limited, difficult, restricted access from Westmount Road which would not provide the preferred separation of traffic flows.</p>	
3.0 Infrastructure and Geography:		
<p>3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider:</p> <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 	<p>The building will be effectively sheltered from the prevailing westerly winds by the walls of the quarry.</p>	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 19: Westmount Quarry, St. Helier	
Item:	Response:
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> • Power (electricity); • Water; • Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> • Close to the existing hospital site and supplied from same sub-station. Currently 2 x 11kV supplies in an open ring supply the area. <p>Water:</p> <ul style="list-style-type: none"> • . <p>Drainage:</p> <ul style="list-style-type: none"> • Capacity OK.
4.0 Clinical and Non-clinical Support:	
<p>4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)</p>	<p>This is a very constricted, small site. If 8 to 10 floors were acceptable, then, it may be possible to provide c.60,000m² of accommodation plus car parking. However, there will be significant compromises in the departmental layouts and relationships due to the restricted floor area available on each floor.</p>
5.0 Clinical Care and Patient Related Issues:	
<p>5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).</p>	<p>This is a very constricted, small site. There will be compromises in the departmental layouts and relationships due to the restricted floor area available on each floor.</p>

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 19: Westmount Quarry, St. Helier		
Item:	Response:	
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	Unlikely to be possible unless empty shell space is accommodated in the design of each floor for fitting-out in the future.	
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	This is a very constricted, small site. There will be compromises in the departmental layouts and relationships due to the restricted floor area available on each floor.	
5.4 Quality of patient environment including views and social spaces	Poor outlook from the all floors into the walls of the quarry; potential for open views to the south from upper floors over the adjacent People's Park.	
5.5 Convenience of access for friends, family and visitors and access to town facilities.	As noted above, the existing hospital is located centrally within St. Helier in close proximity of approximately 70% of the island's population and close to main arterial roads converging on St. Helier with good public transport access from all parts of Jersey. The site is slightly further away from the centre of the town than is the existing hospital and, therefore, there is more limited access to shops and restaurants in the immediate vicinity of this site.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 19: Westmount Quarry, St. Helier	
Item:	Response:
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	This site may not prove to be so convenient for staff who live in the centre of St. Helier and currently walk to work and this may be the source of some dissatisfaction but, for those who drive to work, it should make little difference as long as there is adequate parking provision. Once, however, the new facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	This is a town centre site close to commercial and social areas and, as a result, its security should benefit from general activity and policing in the area.
7.0 Construction and Buildability:	
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	Ground contamination may be an issue from its current use as a quarry. The site's topography is very difficult.
7.2 Access to site for construction vehicles, deliveries and waste removal	The development would be situated on a constricted, town centre site and will present all the issues normally associated with developing such a constricted urban site, such as restricted delivery and waste removal times with adjacent narrow and, at times, congested roads.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

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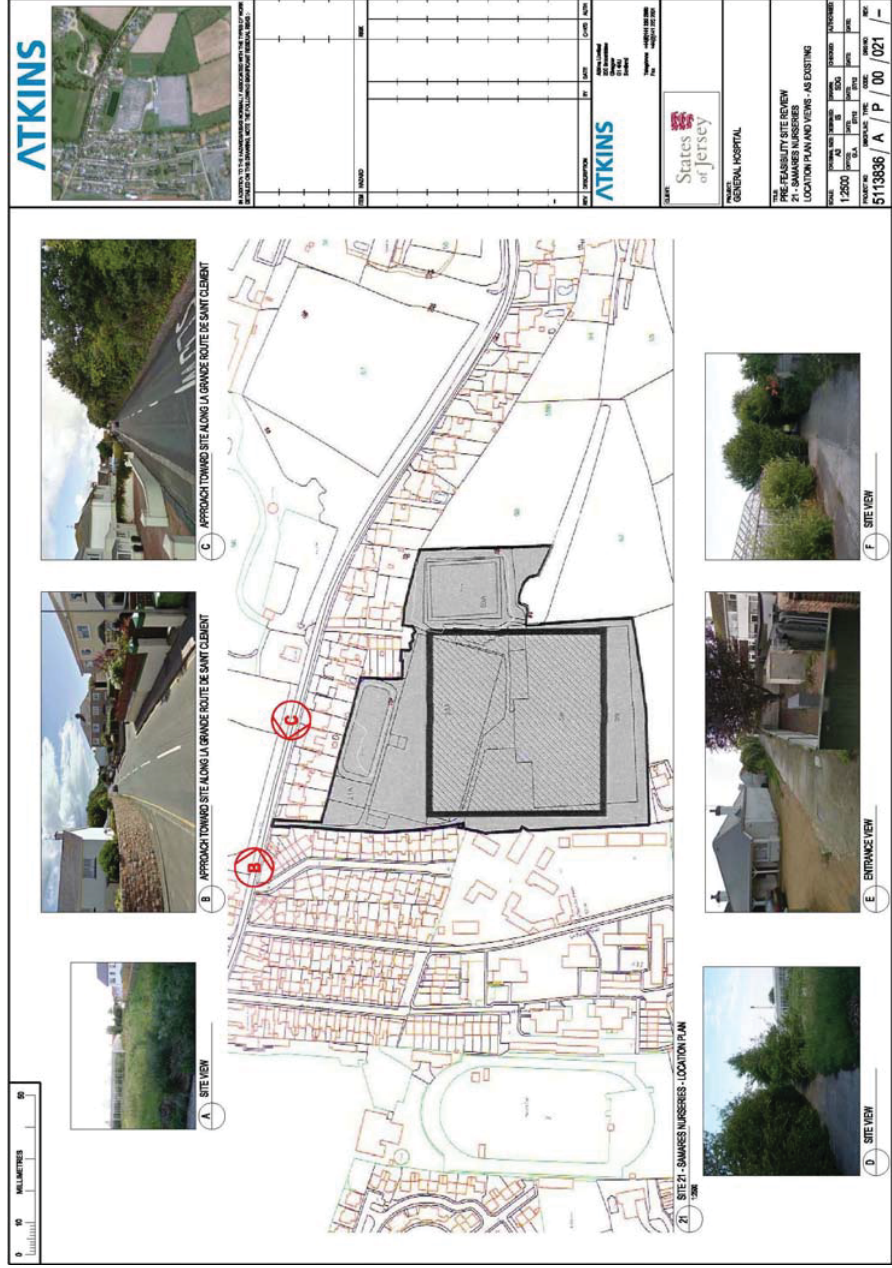
Site 19: Westmount Quarry, St. Helier	
Item:	Response:
7.3 Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little to disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.

Site 19: Environmental Assessment Information

As it was determined that the available area of the site was too small to accommodate the new hospital, an environmental assessment of the site was not carried out.

2.3.1.9

Site 21: Samares Nurseries



Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 21: Samares Nurseries	
Item:	Response:
Size:	41,204sqm
Location:	Out of town to the east of the island
Topology:	Flat site, bordered by residential properties. Currently accessed by a very narrow lane
Ownership:	Privately owned
Availability:	Likely to be available
Usage:	Used as nursery
Requirements:	Could meet requirements, though access an issue
Planning	Site is within the Green Zone and does not accord with Island Plan spatial strategy. Traffic and landscape impacts will also be key material considerations. Area also has potential archaeological interest.
Public Acceptability	Likely to be contentious.
Cost / Value:	Land would have to be acquired.
Information Available:	
Other Issues:	Site proposed for the provision of housing as part of recent Island Plan Review process

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 21: Samares Nurseries	
Item:	Response:
1.0 Massing and Planning Issues:	
<p>1.9 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:</p> <ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 	<p>The site has an overall area of approximately 41,204m² which would be sufficient to accommodate a ground floor footprint in the region of 20,000m² along with associated FM service buildings and service yards, surface car parks and setting-down areas, whilst leaving open spaces for public realm and general landscaping and the potential for future expansion.</p> <p>However, access from La Grande Route de Saint Clement is extremely limited. Currently, there is only one narrow, single track lane leading into the site. Unless some of the adjacent properties can be compulsory purchased to provide wider and, ideally, more than one entrance into the site, there is no possibility of developing this site for an acute hospital.</p>
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	The site is within the Green Zone and does not accord with Island Plan spatial strategy.
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	Traffic and landscape impacts will also be key material considerations. The area also has potential archaeological interest.
1.4 The site requirement for the total hospital development should be immediately available.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 21: Samares Nurseries		Response:
Item:		
2.0 Transport and Access Issues:		
2.1 The site should afford ease of access to the majority of the island's population.		The site is located approximately 2km to the east of St. Helier on La Grande Route de Saint Clement, one of the local roads leading out of St. Helier to the south east corner of the island. Consequently, it is still close to St. Helier and the smaller centres of population on the east coast of the island but anyone from the north and west of St. Helier would probably have to travel through St. Helier to reach this site.
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.		Transport access from St. Helier is good, but there is low capacity at the Green Road junction.
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).		The site is served by the Number 2c bus service and the eastern Island Explorer service to Durrell, both of which start at the Liberation Station in St. Helier. Most bus travellers from the north and west of the island will have to pass through St. Helier and change bus service at Liberation Station.
2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 		There are no public car parks in the immediate vicinity of the proposed site and, consequently, the appropriate car parking provision will have to be included in the site development proposals. The site is located just on the eastern periphery of the main development area of St. Helier. There are smaller local residential areas close to the site but most people are likely to travel to the hospital by car or public transport, with only a few pedestrians from nearby houses.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 21: Samares Nurseries		
Item:		Response:
2.5	The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	Transport access from St. Helier is good, but there is low capacity at the Green Road junction. The road local to the site is narrow and difficult and has been an accident black spot area.
2.6	The site should allow efficient and effective (ideally separate) access by the following traffic flows: <ul style="list-style-type: none"> • Staff, patients and visitors; • Ambulances to A&E; • FM deliveries and waste removal to/from service yard. 	Access from La Grande Route de Saint Clement is extremely limited. Currently, there is only one narrow, single track lane leading into the site. Unless some of the adjacent properties can be compulsory purchased to provide wider and, ideally, more than one entrance into the site, there is no possibility of developing this site for an acute hospital.
3.0 Infrastructure and Geography:		
3.1	The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider: <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 	The site is close to the south and south-east coast of the island and, as a consequence, may be more exposed to the southerly prevailing winds, and this will need to be taken into account in the construction specifications and detailing.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 21: Samares Nurseries	
Item:	Response:
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> • Power (electricity); • Water; • Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> • There is only a single 11kV HV feed to this area and it would be difficult to provide a second 11kV supply for security; it is a long way from the primary sub-station and installing a second feed would be difficult and expensive. <p>Water:</p> <ul style="list-style-type: none"> • Water infrastructure surrounding the site is good with several large diameter mains to the north. Additional smaller diameter pipework in the area could provide extra supply security in the event of emergency bursts. <p>Drainage:</p> <ul style="list-style-type: none"> • Major pumping station to the south if access across the fields could be gained. Surface water drainage may be an issue – marshy ground – may need a new surface water sewer to the surface water pumping station further south.
4.0 Clinical and Non-clinical Support:	
<p>4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)</p>	<p>If suitable access is obtained, the site is large enough to accommodate the upgraded reprovision of the existing hospital services and possibly, if necessary, the relocation of the support CSSD, Stores and Laundry which are currently located remotely on a site at Five Oaks.</p>

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 21: Samares Nurseries	
Item:	Response:
5.0 Clinical Care and Patient Related Issues:	
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	The site is large enough to accommodate the 20,000 square metres of preferred ground floor services.
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	The site is large enough to accommodate future expansion provision, say of 10%, of the gross floor area (approximately 6,000m ²).
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	The site is large enough to design and construct a hospital to accommodate the required key functional content and to current space standards.
5.4 Quality of patient environment including views and social spaces	The site is located in a suburban / semi-rural area bordered to the north and west with residential properties. Potentially good outlook to south and east.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case **Date: 14th October 2013**

Site 21: Samares Nurseries	
Item:	Response:
5.5 Convenience of access for friends, family and visitors and access to town facilities.	<p>The site is located approximately 2km to the east of St. Helier on La Grande Route de Saint Clement, one of the local roads leading out of St. Helier to the south east corner of the island. Consequently, it is still close to St. Helier and the smaller centres of population on the east coast of the island but anyone from the north and west of St. Helier would probably have to travel through St. Helier to reach this site.</p> <p>The site is located on the periphery of St. Helier with limited access to shops and restaurants in the immediate vicinity.</p>
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	This site will not prove to be so convenient for staff who live in, or to the west of, St. Helier and this may be the source of some dissatisfaction but, for those who drive to work, it should make little difference as long as there is adequate parking provision. Once, however, the new facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	The site is a lot more isolated than the existing town centre site and, although it is adjacent to a small residential area, 'Secure by Design' principles should be incorporated into the design proposals to minimise security issues of access and car park security.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

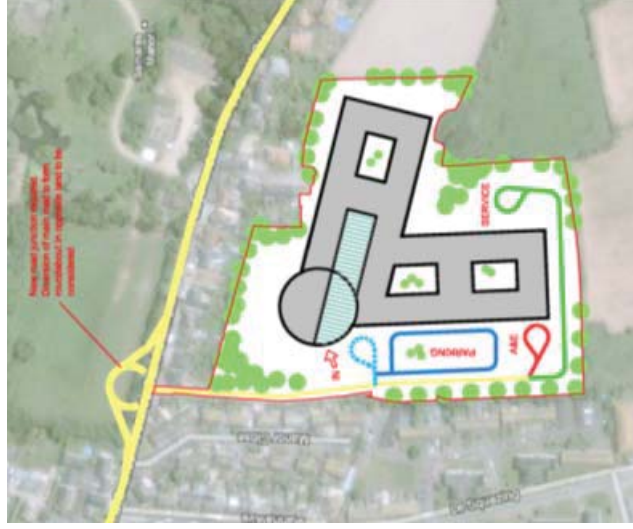
Appendix 2: Economic Case Date: 14th October 2013

Site 21: Samares Nurseries	
Item:	Response:
7.0 Construction and Buildability:	
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	Once the nursery glasshouses and associated buildings have been demolished and the site cleared, unobstructed construction of the new hospital can commence.
7.2 Access to site for construction vehicles, deliveries and waste removal	All vehicular traffic travelling from St Helier will be affected by the Green Road junction. Thereafter the route to the site is via a narrow, radial suburban road with implications on travelling time and which may cause difficulty for some larger construction and delivery vehicles.
7.3 Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.

Site 21: Samares Nurseries:: Environmental Assessment Information



Existing Proposed



Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

1 Planning and Land Use:

- Out of town suburban area bordered by housing and fields, 2km to the east of St. Helier, but still close to the majority of the island's population.
- Extremely limited access into a flat site (currently used as nurseries) of approximately 41,200m², which should be sufficient to accommodate the preferred ground floor footprint plus some parking.
- Site is within the Green Zone and does not accord with the Island Plan spatial strategy.
- Area has potential archaeological interest.
- Traffic, access and landscape impacts will be of key material planning considerations.

2 Biodiversity and Nature Conservation:

- The site is currently privately owned and used as a plant nursery with large greenhouses and associated staff facilities.
- There are shrubs and trees around parts of the perimeter of the site, and the site borders farmland (sometimes marshy) to the east and south.
- There will be an initial loss of habitat on this site but this may be mitigated by new landscape proposals associated with the new development. However, a site survey of flora and fauna should be carried out at the next stage to identify specific species present on site and if there are habitats on the site which support breeding, roosting and/or hibernation, for example for bats and nesting birds.

3 Landscape and Visual:

- The site is bordered by residential properties to the north and west and by farmland to the east and south.
- The construction of a new large hospital will change the character and visual outlook of this site.

4 Traffic, Transport and Access:

- Road access (La Grande Route de Saint Clement) from St. Helier on narrow main road, previously noted locally as an accident black spot. Also low traffic capacity at the Green Road junction.
- Very narrow lane leading into the site - insufficient for access to a hospital. Would require to purchase a number of the residential properties to the north of the site to provide wider access and to improve very limited visibility plays.
- Visitors from the west end of the island will have to travel through St. Helier.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case **Date: 14th October 2013**

- Bus services number 2c and the Island Explorer pass the site.
- No public car parks in the area - parking to be provided as part of the development.
- There will be a requirement to accommodate a substantial level of car parking, probably greater than on a city centre site; not only for those who drive to the existing hospital but also to accommodate those who will now prefer to drive to this more remote location rather than to walk or take public transport. This would be contrary to the aims and goals of both the Island Plan and the Sustainable Transport Policy. The extent of parking will be determined in relation to agreed green travel policy and plans.

5 Noise and Vibration

- The increased traffic, including emergency blue-light vehicles, generated by the new hospital location will generate additional noise and vibration to the adjacent areas, particularly to the nearby housing.
- Particular controls on the emissions from the new ventilation systems, energy centre plant and stand-by generator will be required.

6 Water Resources:

- Water: Water infrastructure is good with additional pipework in the area could supply security in the event of emergency bursts.
- Drainage: major pumping station to the south but would require connection across the intervening fields.

7 Air Quality and Pollution

- The site is located in a semi-rural area to the east of St. Helier with good air quality.
- The quality of the air is likely to be affected by the increased traffic demands.

8 Ground Conditions and Contamination

- As the main part of the site will be extensively developed with hard building and hard landscape features, careful consideration of surface water containment will be required to prevent localised flooding issues.
- Consider also whether the ground has been contaminated with the use of herbicides and fertilisers during the site's use as a nursery.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

9 Waste Management

- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- Consider potential re-cycling of demolition materials.
- Contractor to minimise waste during construction.

10 Archaeology and Historical Buildings

- There are no other apparent issues relating to historic buildings or archaeological interest on these sites.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier	
Item:	Response:
Size:	25,500sqm
Location:	Close to edge of town, high to the north.
Topology:	Flat site, but high above the town.
Ownership:	Private ownership
Availability:	Available
Usage:	Open fields
Requirements:	Could meet the site area requirements, but would require large building (c.2-3 storeys) high up on the edge of town.
Planning	Within Built Up Area so accords with Island Plan spatial strategy and healthcare facility policy, however half of the site is designated as safeguarded for educational use and half protected open space. A large building on this site may be visually prominent so landscape impact and traffic impact likely to be key planning issues.
Public Acceptability	May be contentious.
Cost / Value:	Would have to acquire land.
Information Available:	
Other Issues:	Part of this site proposed for the provision of housing as part of recent Island Plan Review process.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier		
Item:	Response:	
1.0 Massing and Planning Issues:		
1.10 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:	At a restricted site area of approximately 25,500m ² , theoretically the site can only just accommodate the preferred ground floor building footprint of c.20,000m ² with very little limited open space around and within the building footprint to provide emergency access to A&E, drop-off places at the main entrances, service yards, internal courtyards and general public realm amenity spaces, and area for potential future expansion.	
<ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²) 		
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	Within BUA so accords with Island Plan spatial strategy and healthcare facility policy, however half of the site is designated as safeguarded for educational use and half protected open space.	
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	A large building on this site may be visually prominent so landscape impact and traffic impact likely to be key planning issues.	
1.4 The site requirement for the total hospital development should be immediately available.		

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier	
Item:	Response:
2.0 Transport and Access Issues:	
2.1 The site should afford ease of access to the majority of the island's population.	The site is located in the northern outskirts of St. Helier just off the A9, one of the main arterial roads radiating out of St. Helier. Consequently, it is still close to the main centre of population on the island.
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	Road capacity is good, but the Queens Road roundabout is a bottleneck. This would require a trip generation study to determine if there are issues. Narrow road locally to the site and a major junction in this area to give access to the site may be difficult.
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	Bus Service number 19 passes the end of the site along St John's Road. Bus Service number 5 travels along Queens Road very close to the same end of the site. The number 19 service would require to increase its capacity and frequency of service and it is unlikely that it would be possible to get double-decker buses there by way of Westmount Road. Most bus travellers coming in from other parts of St. Helier, or outlying areas of Jersey would require to take a bus into Liberation Station and change there to the number 19 bus service.
2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 car parking spaces for out-of-town sites. 	There are no public car parks in the vicinity of the site, but the site is not large enough to accommodate substantial surface car parks. Therefore basement car parks would be required.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier		
Item:	Response:	
2.5 The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	The site is close to the existing ambulance and fire services' depots in Rouge Bouillon with access from there via Queens Road.	
2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows: <ul style="list-style-type: none">• Staff, patients and visitors;• Ambulances to A&E;• FM deliveries and waste removal to/from service yard.	The site is long and thin with limited connection to and access from adjacent roads. Therefore, the potential for providing separate entrances for the different traffic flows is very limited and unlikely.	
3.0 Infrastructure and Geography:		
3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider: <ul style="list-style-type: none">• Exposure / orientation;• Environmental issues.	The site is located on the top of a hill relatively close to the coast, and is likely to be susceptible to extreme exposure to the westerly and southerly prevailing winds. Half of the site is protected open space.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier	
Item:	Response:
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> Power (electricity); Water; Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> Supplied from a 1960s sub-station in the area of sites 10 and 22 which is near to the limit of its capacity. Perhaps a new sub-station will be built in the area of site 21, but only on-line by 2016 at the earliest. <p>Water:</p> <ul style="list-style-type: none"> . <p>Drainage:</p> <ul style="list-style-type: none"> The adjacent sewer in Queens Road is heavily loaded with limited extra capacity.
4.0 Clinical and Non-clinical Support:	
<p>4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)</p>	<p>This is a constricted, small site. Although it should be possible to provide c.60,000m² of accommodation plus car parking on 4 or 5 floors, there will be limited opportunities for providing expansion space on the site other than in shell space within the building. It is also unlikely that the site will be large enough to accommodate the relocation of the support CSSD, Stores and Laundry which are currently located remotely on a site at Five Oaks. However, there is a reasonable main orbital road link between Five Oaks and the site which does not involve entering the centre of St. Helier..</p>

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier	
Item:	Response:
5.0 Clinical Care and Patient Related Issues:	
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	The site is just large enough to accommodate the 20,000 square metres of preferred ground floor services. However, the proportions of the shape of the site (long and narrow) may make the achievement of the preferred departmental relationships difficult and the formation of segregated access points impossible.
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	The site, however, is not large enough to accommodate future expansion provision, say of 10%, of the gross floor area (approximately 6,000m ²).
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	The site is large enough to design and construct a hospital to accommodate the required key functional content and to current space standards.
5.4 Quality of patient environment including views and social spaces	The site is located on the periphery of St. Helier close to some residential and farming land which should offer some opportunities for pleasant outlooks from the upper floors.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier	
Item:	Response:
5.5 Convenience of access for friends, family and visitors and access to town facilities.	<p>The site is located approximately 1.5km north of St. Helier close to the A9, one of the main arterial roads radiating out of St. Helier. Consequently, it is still close to the main centre of population on the island bust is located out of the town in the country.</p> <p>There is very limited, if not any, access to shops and other commercial facilities locally</p>
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	This site will not prove to be so convenient for staff who live in, or to the east of, St. Helier and this may be the source of some dissatisfaction but, for those who drive to work, it should make little difference as long as there is adequate parking provision. Once, however, the new facility is completed, the hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities which should offer greater opportunities to attract and retain staff.
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	The site is a lot more isolated than the existing town centre site and, although it is adjacent to a small residential area, 'Secure by Design' principles should be incorporated into the design proposals to minimise security issues of access and car park security.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 22: Field 1219, La Grande Route de Mont a L'Abbe, St. Helier	
Item:	Response:
7.0 Construction and Buildability:	
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	The site is an open field and currently available, although privately owned. Access to the site is restricted.
7.2 Access to site for construction vehicles, deliveries and waste removal	All vehicular traffic travelling from St Helier will be affected by the Queens Road roundabout. Thereafter the route to the site is via a radial country road with implications on travelling time and which may cause difficulty for some larger construction and delivery vehicles.
7.3 Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.

Site 22: Environmental Assessment Information

As it was determined that the available area of the site was too small to accommodate the new hospital, an environmental assessment of the site was not carried out.

2.3.2 Site analysis

223. A high level analysis was undertaken of the development potential of each site to accommodate the proposed hospital facility. Outline sketch site development proposals were drawn up to indicate, in principle, if each site could accommodate a new hospital with a gross floor area of approximately 60,000m² and a preferred ground floor area of approximately 18,000 to 20,000m², along with suitable site access and separation of traffic flows.
224. Three sites were rejected during this long-list site analysis process as being inadequate in terms of site area available for development and inappropriate in terms of the topography of the site and surrounding areas for the development of a new general hospital. These were:
- Site 16 (Gas Works) - available site area too small
 - Site 19 (Westmount Quarry) - available site area too small, site access extremely limited with very challenging major changes in ground levels
 - Site 22 (Field 1219) - site area too small with very limited site access potential.
- Consequently, 7 sites were taken forward for evaluation and scoring.

2.4 Evaluation and scoring of long-listed sites

2.4.1 Evaluation criteria

225. The sites were evaluated against the following information:
- Size: Site size.
 - Location: Location on the Island.
 - Topography: The general topography of the site
 - Ownership: Who owns the site
 - Availability: The availability of the site (it is suggested that it needs to be available within the next 3 years and be able to be developed in c 5 years).
 - Usage: Its current or proposed use.
 - Requirements: The likelihood of the site meeting the requirement, including the likely ability to accommodate the volume required, infrastructure and access
 - Planning: What key planning policies apply to the site and other key planning issues likely to arise (e.g. height and massing), should the site be identified for a hospital.
 - Acceptability: A view as to whether the site is likely to be acceptable politically and/or by the public.

- Cost / Value: Whether the site has a cost or a value of site for other uses
- Information available: Information available on the site
- Other issues: Other issues, such as covenants on the site.

2.4.2 Key benefits criteria

226. Key benefit criteria, associated with the overarching investment objectives identified for this project were developed by Atkins, based on previous experience in formulating such a set of criteria, and through consultation with H&SS staff. These were agreed with the Pre-Feasibility Project Board on 18th July 2012 as those against which both the initial long list of options and subsequently the more detailed appraisal of the short listed options would be assessed and are identified in figure 2.3 below.

Figure 2.3: Full List of Benefits Criteria against which Options are assessed

1.0	Massing and Planning Issues
1.1	The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.
1.2	The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy and HSS strategy
1.3	The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage
1.4	Site required for the total hospital development should be immediately available without major infrastructure and other issues
2.0	Transport and Access Issues
2.1	The site should afford ease of access to the majority of the island's population
2.2	The site should allow efficient and effective access by private and commercial transport
2.3	The site should allow efficient and effective access by public transport
2.4	The site should allow adequate parking facilities available for staff, patients and visitors
2.5	The site should allow efficient and effective access by emergency vehicles
2.6	The site should allow efficient and effective access for separating traffic flows
3.0	Response to the Island's Infrastructure and Geography
3.1	The site should present minimal risks to its safe and on-going running in terms of the weather and environment
3.2	The site should be capable of supporting key infrastructure for the hospital

4.0	Clinical and Non Clinical support Functionality
4.1	The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions
5.0	Clinical Care and Patient related Issues
5.1	The site should allow for the optimisation of clinical adjacencies and functionality
5.2	The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of all acute and non acute services as part of a clear, sustainable, forward masterplanning strategy
5.3	The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice
5.4	Quality of patient environment - views and social spaces
5.5	Convenience of access for friends, family and visitors and access to town/shopping facilities
6.0	Staffing and Support Issues
6.1	The effect of the site on staff recruitment and retention and patient disruption at the time of transition
6.2	The ongoing effect of the site on staff recruitment and retention
6.3	Staff, patient and visitor security relating to location and out-of-hours safety
7.0	Construction and Buildability issues
7.1	Ease of construction logistics
7.2	Access to site for construction vehicles, deliveries and waste removal
7.3	Protection of existing hospital services and avoidance of disruption during the build process

227. Following the assessment and scoring of each of the sites against this list of benefit criteria a preliminary rank order of sites was developed.

2.4.3 Key risks

228. In addition to the detailed development of the benefits criteria to assess the options, a detailed risk register has also been developed by Atkins to identify risks of procurement, construction and operation associated with each site. These risks have been developed and evaluated as part of the option appraisal process as outlined in the Economic Section of the Strategic Outline Case.
229. Each site was assessed in respect of potential risks and an updated ranked order of sites was created. To allow the selection of 3 sites to be recommended for short-listing, benefits and risks for each site were combined and a subsequent, final composite ranking was created.
230. The main risks associated with the proposals are as follows:

Figure 2.4: Summary of Risk Register associated with Site development options

1	PLANNING AND ENVIRONMENT
1.1	Failure to obtain necessary Planning consents
1.2	Further provision / costs required to satisfy SEA / EIA requirements
1.3	Public opinion and local media against selected site
2	TRANSPORT
2.1	Failure to overcome transport issues raised by TIA and environmental issues
2.2	Site does not help to achieve reduction in car usage
3	SERVICES INFRASTRUCTURE
3.1	Electricity: increased cost of providing robust power supplies
3.2	Water supply: Increased cost of providing robust water supplies
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems
4	CLINICAL AND NON-CLINICAL SUPPORT
4.1	Failure to meet preferred departmental and room relationships
4.2	Risk of disruption to existing health services
5	STAFF AND PATIENT ISSUES
5.1	Location of new hospital is not readily accessible to majority of island's population
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital
6	CONSTRUCTION
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay
6.2	Proposed construction overheats Jersey construction economy
7	DEVELOPMENT OPPORTUNITY
7.1	Additional cost or opportunity cost inherent with development of this site

2.4.4 Long-list evaluation results

231. Each of the long-listed sites was assessed and scored against the range of benefit criteria identified in 2.34.2 above and a rank order of sites was developed. Following this, each site was also assessed in respect of the potential construction and operational risks identified in 2.4.3 above) and an updated ranked order of sites was created. To allow the selection of 3 sites to be recommended for short-listing, benefits and risks for each site were combined and a subsequent, final composite ranking was created (refer below).
232. This non-financial appraisal process has followed best practice in objectifying the assessment and appraisal process wherever possible; the scoring of options against the benefits criteria has occurred both when the benefits criteria have been un-weighted and also on a weighted basis. Having assessed the results of both methodologies, the differential between the scoring of options under both methodologies is not considered material so the economic assessment uses the un-weighted benefit scores as the prime source for the investment decision.
233. To test sensitivities of the selection process, weightings were applied to both the benefit criteria and the risk criteria and the results compared with the non-weighted assessment. Both the non-weighted and weighted assessments generated broadly similar results.

Non-Weighted Risk Ranking: 31st July 2012

States of Jersey Pre Feasibility Project

Key Risk criteria selected for shortlisting and Non Financial appraisal

Section	Set	Sub-set	Sub Weighting	Scorings										
				Site 1: Existing	Site 2: Overdale	Site 3: St Saviour's	Site 4-14: Car Park / Zephyrus	Site 8: Airport	Site 10: Warwick Fin	Site 16: Gas Works	Site 19: Quarry	Site 21: Samaras	Site 22: Fd 121	
				RANK	1	7	6	2	5	3			4	
				Non-Weighted Score	103	162	146	131	141	134			139	
				Correct to %	83.8%	128.0%	85.1%	97.8%	87.0%	87.3%			84.8%	
The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.				Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No
1.0	PLANNING AND ENVIRONMENT			100%										
1.1	Failure to obtain necessary Planning consents			60%	5	15	5	20	15	15			15	
1.2	Further provision / costs required to satisfy SEA / EIA requirements			75%	3	12	12	12	9	12			9	
1.3	Public opinion and local media against selected site			15%	4	12	12	16	12	9			9	
					1	1	2	2	1	1			1	
2.0	TRANSPORT			100%										
2.1	Failure to overcome transport issues raised by TIA and environmental issues			75%	2	9	4	12	6	4			9	
2.2	Site does not help to achieve reduction in car usage			25%	2	12	12	2	12	12			12	
					1	1	1	1	1	1			1	
3.0	SERVICES INFRASTRUCTURE			100%										
3.1	Electricity: increased cost of providing robust power supplies			55%	4	12	12	4	4	12			12	
3.2	Water supply: increased cost of providing robust water supplies			35%	4	8	8	8	4	12			4	
3.3	Drainage capacity: increased cost of providing robust foul and surface water drainage systems			55%	4	4	16	4	16	4			8	
					1	1	4	1	4	1			1	
4.0	CLINICAL AND NON-CLINICAL SUPPORT			100%										
4.1	Failure to meet preferred departmental and room relationships			60%	9	3	3	6	3	3			6	
4.2	Risk of disruption to existing health services			40%	20	20	4	4	4	4			4	
					1	1	1	1	1	1			1	
5.0	STAFF AND PATIENT ISSUES			100%										
5.1	Location of new hospital is not readily accessible to majority of island's population			60%	3	9	12	3	12	9			12	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital			40%	3	9	12	3	12	9			12	
					1	1	1	1	1	1			1	
6.0	CONSTRUCTION			100%										
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay			75%	16	4	4	4	4	4			4	
6.2	Proposed construction overheats Jersey construction economy			25%	4	8	8	8	8	8			8	
					1	1	1	1	1	1			1	
7.0	DEVELOPMENT OPPORTUNITY			100%										
7.1	Opportunity impact inherent with development of this site			100%	20	25	20	25	20	15			15	
					1	1	1	1	1	1			1	
				Non-weighted Score	103	162	146	131	141	134			139	
				RANK	1	7	6	2	5	3			4	

Score	2	3	4	5	6	7	8	9	10	11	12
RANK	2	3	4	5	6	7	8	9	10	11	12

Combined Non-Weighted Benefits and Non-Weighted Risk Ranking: 31st July 2012

States of Jersey Pre Feasibility Project

Key Benefits criteria selected for shortlisting and Non Financial appraisal

Section	Set	Subset		Sub Weighting	Scorings										
					Site 1: Existing	Site 2: Overdale	Site 3: St Saviour's	Site 4-14: Waterfront	Site 8: Airport	Site 10: Warwick Fm	Site 16: Gas Works	Site 19: Quarry	Site 21: Samares	Site 22: Fd 1219	
The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.					Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No
BENEFIT RANK					2	3	6	1	5	3	8	10	8	7	
Weighted Score					1.64	1.49	1.28	1.79	1.43	1.49	1.16	1.01	1.16	1.19	
Converted to %					91.6%	83.2%	71.5%	100.0%	79.9%	83.2%	64.8%	56.4%	64.8%	66.5%	
RISK RANK					1	7	6	2	5	3			4		
Weighted Score					1.03	1.67	1.46	1.11	1.41	1.04			1.13		
Converted to %					83.0%	150.0%	127.1%	80.0%	123.9%	87.7%			95.4%		
OVERALL RANKING					1	4	7	1	5	3			6		
Benefit Ranking x Risk Ranking					2	21	36	2	25	9			32		

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 01 - EXISTING HOSPITAL
27 July 2012

Risk Id	Description of Risk	IMPACT (Rating (A))	L-HOOD (Rating (B))	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	1	6.0	1860 hospital granite building, gatehouse and setting are listed	
1.2	Further erosion / costs required to satisfy SEA / EIA requirements	3	1	3.0		
1.3	Public opinion and local media against selected site	4	1	4.0		
	OVERALL PLANNING RISK			4.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	2	1	2.0	Congested roads (one-way system) around three sides of the hospital	
2.2	Site does not help to achieve reduction in car usage	2	1	2.0		
	OVERALL TRANSPORT RISK			2.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: Increased cost of providing robust power supplies	4	1	4.0	Good: 2 x 11kV open ring supplies	
3.2	Water supply: Increased cost of providing robust water supplies	4	1	4.0	Good: existing for current and future supply in the event of bursts. Some rationalisation of site may be required to provide efficient supply	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems	4	1	4.0	capacity satisfactory for envisaged development	
	OVERALL INFRASTRUCTURE RISK			4.0		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet ordered departmental and room relationship	3	3	9.0		
4.2	Risk of disruption to existing health services	4	5	20.0		
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			14.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	1	3.0		
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	1	3.0		
	OVERALL STAFF AND PATIENT RISK			3.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	4	16.0		
6.2	Proposed construction overruns, Jersey construction economy	2	2	4.0		
	OVERALL CONSTRUCTION RISK			10.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	4	5	20.0	Purchase of adjacent properties	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			20.0		
	OVERALL SITE RISK			8.6		

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STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 02 - OVERDALE HOSPITAL 27 July 2012

Risk Id	Description of Risk	IMPACT Rating (A)	Likelihood Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	3	15.0	Site is within the Green Backdrop Zone. • Valley is a Protected Open Space • Visual prominence of site and landscape prominence of a large building would be a key planning issue	
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	4	12.0	The existing site has substantial mature landscapes with significant tree planting, particularly around La Va Aubert at the lower, western end of the site	
1.3	Public opinion and local media against selected site	4	3	12.0		
	OVERALL PLANNING RISK			13.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	3	9.0		
2.2	Site does not help to achieve reduction in car usage	3	4	12.0		
	OVERALL TRANSPORT RISK			10.5		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	3	12.0	1980s sub station near limit of its capacity	
3.2	Water supply: increased cost of providing robust water supplies	4	2	8.0	Water infrastructure redundancy limited for high-pressure supplies. Lower pressure supplies are available in large quantity although new pipework needed to bring this to	
3.3	Drainage capacity: increased cost of providing robust foul and surface water drainage systems	4	1	4.0	capacity satisfactory for envisaged development.	
	OVERALL INFRASTRUCTURE RISK			8.0		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	1	3.0		
4.2	Risk of disruption to existing health services	4	5	20.0		
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			11.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	3	9.0		
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	3	9.0		
	OVERALL STAFF AND PATIENT RISK			9.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0		
6.2	Proposed construction overruns Jersey construction economy	2	4	8.0		
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	5	5	25.0	Purchase of alternative site for community services	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			25.0		
	OVERALL SITE RISK			11.9		

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 03 - ST. SAVIOUR'S HOSPITAL
27 July 2012

Risk Id	Description of RISK	IMPACT Rating (A)	L-HOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	1	6.0	Within the Built-up Area and within the Island Plan healthcare policy. Heritage issues posed by the listed status of the 1888 Asylum building, its front lawn setting and the adjacent Queen's Farm.	
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	4	12.0	Mature landscaped area adjacent to water reservoir.	
1.3	Public opinion and local media against selected site	4	3	12.0		
	OVERALL PLANNING RISK			9.7		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	2	6.0	Located approximately 4km along county roads to east of St. Helier. Complex roundabout at Five Oaks is a problem and would require a TIA to investigate implications of extra traffic volume.	
2.2	Site does not help to achieve reduction in car usage	3	4	12.0	Out of town site. Very limited pedestrian possibilities for surrounding area.	
	OVERALL TRANSPORT RISK			9.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	3	12.0	limited capacity – provide new 11kV supply from sub-station at La Rue de Pres?	
3.2	Water supply: Increased cost of providing robust water supplies	4	2	8.0	Water: Infrastructure redundancy limited for high-pressure supplies. The existing main in the road would provide sufficient supply, however water storage on site needed.	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems	4	4	16.0	could have capacity issues – may need to carry out significant major upgrade of existing sewers to increase capacity or construct on-site water treatment plant.	
	OVERALL INFRASTRUCTURE RISK			12.0		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	1	3.0	With the demolition of the asylum building, the site would be large enough to accommodate the new hospital and associated facilities.	
4.2	Risk of disruption to existing health services	4	1	4.0	There are no health services on this site.	
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			3.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	4	12.0	Helier	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	4	12.0	The site will not be as convenient for staff who live in, or to the west of, St. Helier.	
	OVERALL STAFF AND PATIENT RISK			12.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	There are no health services on this site.	
6.2	Proposed construction overrate Jersey construction economy	2	4	8.0		
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	4	5	20.0	Lost opportunities for selling this site.	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			20.0		
	OVERALL SITE RISK			10.3		

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STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 04 - ESPLANADE CAR PARK AND WATERFRONT 27 July 2012

Risk Id	*Description of Risk	IMPACT Rating (A)	L-HOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	4	20.0	Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan	
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	4	12.0	Adjacent beach and gardens heavily used in the summer	
1.3	Public opinion and local media against selected site	4	4	16.0	high profile sites	
	OVERALL PLANNING RISK			16.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	4	3	12.0	The roads can get grid-locked. May have to lower the gyratory road below the building.	
2.2	Site does not help to achieve reduction in car usage	2	1	2.0	Town centre location close to main bus station at Liberation Station	
	OVERALL TRANSPORT RISK			7.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	1	4.0	11kV supply with good capacity	
3.2	Water supply: increased cost of providing robust water supplies	4	2	8.0	Water infrastructure is good. May be prudent to store water on site in the event of emergency	
3.3	Drainage capacity: increased cost of providing robust foul and surface water drainage systems	4	1	4.0	capacity satisfactory for envisaged development	
	OVERALL INFRASTRUCTURE RISK			5.3		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	2	6.0	The area of both sites is less than the preferred departmental ground floor footprint – would require a compromise in preferred departmental accommodation / relationships and a split between the ground floor accommodation on both sites	
4.2	Risk of disruption to existing health services	4	1	4.0	There are no health services on this site	
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			5.0		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	1	3.0	Still close to the majority of the island's population	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	1	3.0	Town centre site close to the existing hospital and close to public transport, retail and commercial facilities	
	OVERALL STAFF AND PATIENT RISK			3.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	There are no health services on this site	
6.2	Proposed construction overhauls Jersey construction economy	2	4	8.0		
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	5	5	25.0	alternative potential opportunities for this site	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			25.0		
	OVERALL SITE RISK			9.6		

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 08 - AIRPORT LAND
27 July 2012

Risk id	Description of RISK	IMPACT Rating (A)	LIHOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	3	15.0	Site is within the Green Zone and does not accord with the Island Plan strategy. Playing fields are Protected Open Space. Airport Fuel Depot to the immediate north is a hazardous installation – would have to be relocated away from the hospital	
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	3	9.0		
1.3	Public opinion and local media against selected site	4	3	12.0		
	OVERALL PLANNING RISK			12.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	2	6.0	bottlenecks on road at Beaumont junction with no scope for improvement	
2.2	Site does not help to achieve reduction in car usage	3	4	12.0	Large local population in nearby St. Bredale which could walk or use public transport	
	OVERALL TRANSPORT RISK			9.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	1	4.0	existing new primary sub-station in the airport area with spare capacity.	
3.2	Water supply: Increased cost of providing robust water supplies	4	1	4.0	Water Infrastructure is good. May be prudent to store water on site in the event of emergency	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems	4	4	16.0	could have capacity issues – may need to carry out significant major upgrade of existing sewers to increase capacity or construct on-site water treatment plant	
	OVERALL INFRASTRUCTURE RISK			8.0		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	1	3.0	Site should be of sufficient area to accommodate the preferred ground floor footprint with preferred departmental relationships and accommodation	
4.2	Risk of disruption to existing health services	4	1	4.0	There are no health services on this site	
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			3.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	4	12.0	The site is further from the majority of the population around the St. Heller	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	4	12.0	Not so convenient to staff living in, and to the east of, St. Heller. No local supporting commercial and retail facilities	
	OVERALL STAFF AND PATIENT RISK			12.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	There are no health services on this site	
6.2	Proposed construction overheats Jersey construction economy	2	4	8.0		
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	4	5	20.0	reposition of the fuel farm	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			20.0		
	OVERALL SITE RISK			10.1		

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 10 - WARWICK FARM
27 July 2012

Risk Id	Description of Risk	IMPACT Rating (A)	Likelihood Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	3	15.0		
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	4	12.0	Site is within the Green Zone and does not accord with the Island Plan spatial strategy. A small part of the site has a covenant on it preventing building	
1.3	Public opinion and local media against selected site	3	3	9.0	Transport and landscape will be key issues	
	OVERALL PLANNING RISK			12.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	2	6.0	Route from St. Helier can get congested at Queen's Road	
2.2	Site does not help to achieve reduction in car usage	3	4	12.0	Out of town site. Very limited pedestrian possibilities for surrounding area	
	OVERALL TRANSPORT RISK			9.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity. increased cost of providing robust power supplies	4	3	12.0	only a single 11kV supply to the site with limited spare capacity	
3.2	Water supply. Increased cost of providing robust water supplies	4	3	12.0	Water infrastructure surrounding the site is limited, and close to capacity at peak	
3.3	Drainage capacity. Increased cost of providing robust foul and surface water drainage systems	4	1	4.0	capacity satisfactory for envisaged development	
	OVERALL INFRASTRUCTURE RISK			9.3		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	1	3.0	The site should be large enough to accommodate the preferred ground floor footprint plus associated access zones and car parking	
4.2	Risk of disruption to existing health services	4	1	4.0	There are no health services on this site	
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			3.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	3	9.0	Still close to the majority of the island's population	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	3	9.0	Out of town location – not so convenient. No supporting social and commercial facilities	
	OVERALL STAFF AND PATIENT RISK			9.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	There are no health services on this site	
6.2	Proposed construction overruns Jersey construction economy	2	4	8.0		
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	3	5	15.0	re-routing green parish lane	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			15.0		
	OVERALL SITE RISK			9.1		

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STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 21 - SAMARES NURSERIES 27 July 2012

Risk Id	Description of RISK	IMPACT Rating (A)	L-HOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	3	15.0	Site is within the Green Zone and does not accord with the Island Plan spatial strategy. Area has potential archaeological interest.	
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	3	9.0	Traffic, access and land scope impacts will be of key material planning considerations. Semi-rural site bordering farm land.	
1.3	Public opinion and local media against selected site	3	3	9.0		
	OVERALL PLANNING RISK			11.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	3	9.0	Road access (La Grande Route de Saint Clement) from St. Heller on narrow main road, previously noted locally as an accident black spot. Also low traffic capacity issues at the Green Road Junction - would be exacerbated by size of new development	
2.2	Site does not help to achieve reduction in car usage	3	4	12.0		
	OVERALL TRANSPORT RISK			10.5		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	3	12.0	Single 11kV supplies the area – difficult and expensive to provide a second supply for security from the distant primary sub-station	
3.2	Water supply: increased cost of providing robust water supplies	4	1	4.0	Water infrastructure is good with additional pipework in the area could supply security in the event of emergency bursts	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems	4	2	8.0	major pumping station to the south but would require connection across the intervening fields	
	OVERALL INFRASTRUCTURE RISK			8.0		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	2	6.0	Site area of approx. 41, 200m ² should be able to accommodate the preferred ground floor building footprint of 20,000m ² but may have to consider a multi-storey car parking option contained within the site	
4.2	Risk of disruption to existing health services	4	1	4.0	There are no health services on the site	
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			5.0		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	4	12.0	Out of town location with few supporting social and commercial facilities in the surrounding area. More difficult for those living to the west of St. Heller.	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	4	12.0		
	OVERALL STAFF AND PATIENT RISK			12.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	There are no health services on the site	
6.2	Proposed construction overheats Jersey construction economy	2	4	8.0		
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	3	5	15.0	purchasing of adjacent properties to secure safe and adequate access onto the site	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			15.0		
	OVERALL SITE RISK			9.6		

2.4.5 Establishing a short-list recommendation

234. A summary of the results of the short listing process confirming the recommendation of the three short-listed sites to the Project Board and which sites were rejected along with the associated predominant reasons is given in figure 3.3 below.

Figure 2.5: Long list of options identifying those included in the short list

	Site Name	Short Listed?	Primary Reasons for Rejection
1	Site 1 - The Existing General Hospital site (possibly with additional areas purchased):	YES	Short-listed recommendation to the Project Board
2	Site 2 - Overdale Hospital	NO	Unacceptable impact on community based services which are currently sited at Overdale; the community strategy being to consolidate services on the Overdale site. Vehicular access from main roads to the site is poor.
3	Site 3 - St Saviour's Hospital (with Clinique Pinel and Rosewood House)	NO	Planning restrictions exist on the existing buildings on the site which would severely compromise clinical functionality. Access issues and convenience for patients and staff is poor.
4	Site 4 - Esplanade Car Park, and Site 14 - Zephyrus / Crosslands site	YES	Short-listed recommendation to the Project Board.
5	Site 8 - Land at Airport (fields to the south).	NO	Not in accord with the Island Plan. Site meets minimum area required but neighbouring fuel depot would be a fire hazard and would have to be moved. Transport and access issues considered less optimal than other sites. Exposure to climate also considered an issue.
6	Site 10 - Warwick Farm	YES	Short-listed recommendation to the Project Board.
7	Site 16 - Jersey Gas site, Tunnel St.	NO	Site footprint not considered viable for construction of a hospital with optimal clinical adjacencies.
8	Site 19 - Westmount Quarry	NO	Site footprint and topography not considered viable for construction of a hospital with optimal clinical adjacencies.

	Site Name	Short Listed?	Primary Reasons for Rejection
9	Site 21 - Samares Nurseries	NO	A range of travel and accessibility issues a key concern for this site including road capacity and limited site access issues. Not in accord with the island plan.
10	Site 22 - Field 1219, La Grande Route de Mont a L'Abbe, St. Helier	NO	Site footprint not considered viable for construction of a hospital with optimal clinical adjacencies

235. On the basis of this analysis, Atkins recommended the following short-list options for presentation to the Ministerial Oversight Group and for subsequent further appraisal within the OBC:
- Option 1: Site 1 - Redevelopment of the Existing General Hospital site
 - Option 2: Site 4 + 14 - New-build development on the Esplanade Car Park and Zephyrus / Westwater / Crossland site
 - Option 3: Site 10 - New-build development on the Warwick Farm site
236. On the 31st July the Project Board considered the findings of the Atkins' assessment and agreed that the Ministerial Oversight Group should be appraised of the recommended short-listed sites noted above.

2.5 Short-list review by the Ministerial Oversight Group

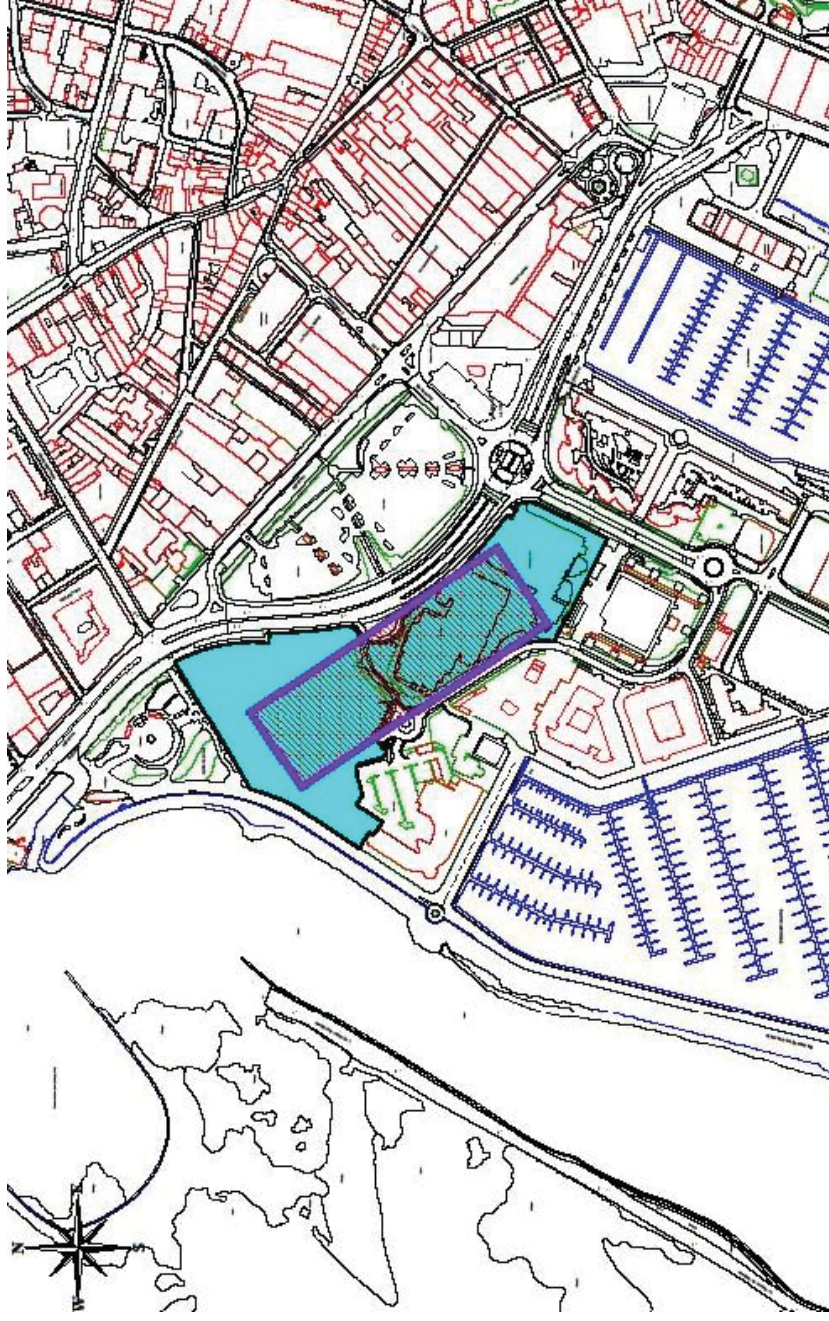
237. On the 2nd August, following a presentation of the recommendations and subsequent debate, the Ministerial Oversight Group concurred with the recommended short-listed sites but, due to the risk of identifying an alternative financial centre for the Island being unacceptably high, requested that Site 4 be no longer considered and that Site 14 be combined with a new Site 28 (comprising the Aquasplash / Cineworld complex) which new information had indicated would be potentially available in the 3 to 5 year timescale required. This new combined site would be referred to as Site 14 + 28 - the Zephyrus / Crosslands / Aquasplash / Cineworld site.
238. The Ministerial Oversight Group consequently confirmed that the following three sites should be short-listed and examined in more detail, including an assessment of the financial impact of their selection:
- Site 1: The Existing General Hospital site
 - Site 10: The site at Warwick Farm.
 - Site 14 + 28: The Zephyrus / Crosslands / Aquasplash / Cineworld site

2.6 Short-list analysis

2.6.1 Site assessment technical information

239. The three short-listed options identified in section 2.5 above were carried forward for further development, appraisal and evaluation; all the other options being excluded at this stage. Further site technical information was obtained in relation to these three sites which, in conjunction with further clarification and confirmation of the required clinical service provision, enabled the high level development plan proposals for each site to be reviewed and updated.
240. The site assessment information for Sites 01 and 10 has been included above in the long listed site information above; the site assessment information for the revised Site 14 + 28 is included below.

2.6.1.1 Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site



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Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site	
Item:	Response:
Size:	
Location:	Centrally within St Helier, with good access and road links.
Topology:	Partly on flat site on reclaimed land; partly existing developed leisure facility site.
Ownership:	Owned by the States of Jersey Development Company.
Availability:	Existing leisure facilities (Cineworld and AquaSplash swimming pool) would require to be relocated
Usage:	Initially it is planned to use part of the site for the temporary decant of car parking when the Esplanade site is redeveloped. Thereafter, this part is currently planned as a residential area, with c500 units of accommodation.
Requirements:	Could meet area requirements possibly within a 5 storey building.
Planning	Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan (identified as residential).
Public Acceptability	Possibly, though the site could make a significant contribution to the provision of housing in the Island which would reduce pressure on the countryside.
Cost / Value:	Significant site value and value as use as temporary car park. Costs involved in the reprovion elsewhere of the leisure facilities.
Information Available:	Masterplan and outline planning information through SoJDC
Other Issues:	

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Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site		
Item:	Response:	
1.0 Massing and Planning Issues:		
1.11 The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change. Consider:	The site is capable of accommodating the proposed development, although the overall area and shape of the site with pinch points across its width imposes restrictions on the footprint that can be developed.	
<ul style="list-style-type: none"> • GIFA: c.60,000m²; • Preferred GF: c.20,000m²; • Expansion potential: (c.5,000m²?) 		
1.2 The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy.	Accords with Island Plan spatial strategy and healthcare facility policy but challenges the St. Helier Waterfront Masterplan which proposes a new residential development on the vacant part of the site.	
1.3 The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage	A masterplan for the site as a financial district has been approved and has an outline planning permit for the development.	
1.4 The site requirement for the total hospital development should be immediately available.	The existing leisure facilities (Cineworld and Aquasplash swimming pool) would require to be relocated and the existing facilities demolished to release the full site area for the hospital development. This process is likely to take 3 to 4 years to complete.	

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Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site	
Item:	Response:
2.0 Transport and Access Issues:	
2.1 The site should afford ease of access to the majority of the island's population.	The site is located within St. Helier and close to approximately 70% of the island's population.
2.2 The site should allow efficient and effective access by private and commercial (FM) transport. Consider main access routes and junctions within the surrounding areas.	Transport links and access are generally excellent although there would be challenges to get appropriate pedestrian access across the dual carriageway gyratory road network to this area.
2.3 The site should allow efficient and effective access by public transport (consideration of the risk that public transport routes may not be altered sufficiently to accommodate patient demand on any individual site).	There are a total of 19 different bus routes around Jersey, all of which leave from Liberation Station bus depot in St Helier, which is located close by within a 5 to 10 minute walk.
2.4 There should be adequate parking facilities available for staff, patients and visitors. Consider: <ul style="list-style-type: none"> Existing car parks for town centre sites; Provision of 300 (?) car parking spaces for out-of-town sites. 	The car parking requirements for the new hospital would have to be catered for in the new development, probably by way of basement parking or the provision of a new multi-storey car park.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site	
Item:	Response:
2.5 The site should allow efficient and effective access by emergency services (ambulances and fire service). Consider routes from depots in St. Helier.	The site is located in the centre of St. Helier adjacent to the gyratory road network that facilitates traffic coming into and leaving St. Helier from the east and the west. Also the radial arterial routes from the north of the island converge in this area. These sites are still close to the ambulance and fire service depots in Rouge Bouillon, less than 1km away, but there are issues with congestion at times in this area.
2.6 The site should allow efficient and effective (ideally separate) access by the following traffic flows: <ul style="list-style-type: none"> • Staff, patients and visitors; • Ambulances to A&E; • FM deliveries and waste removal to/from service yard. 	There are sufficient opportunities around the perimeter of both sites away from the gyratory road network to facilitate separate entrances for the different traffic flows.
3.0 Infrastructure and Geography:	
3.1 The site should present minimal risks to its safe and on-going running in terms of the weather and environment. Consider: <ul style="list-style-type: none"> • Exposure / orientation; • Environmental issues. 	The sites are located on reclaimed coastal land on the edge of St. Helier and are exposed to the prevailing westerly and southerly winds; this will need to be taken into account in the construction specifications and detailing.

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site	
Item:	Response:
<p>3.2 The site should be capable of supporting key infrastructure for the hospital. Consider:</p> <ul style="list-style-type: none"> • Power (electricity); • Water; • Drainage 	<p>Power (Electricity):</p> <ul style="list-style-type: none"> • 11kV sub-station in this area with good supply capacity. • Other sub-station options in the city centre area. <p>Water:</p> <ul style="list-style-type: none"> • Water Infrastructure surrounding the site is good with a large bore trunk-main pipe to the north-east providing an adequate supply. To provide additional security of supply, a 12" trunk main is available to the north, which would require a large road crossing to bring the water to site. <p>Drainage:</p> <ul style="list-style-type: none"> • The main trunk sewer runs along under Esplanade Road which offers the opportunity for connection (as do electricity and gas). Capacity is OK. There is a local drainage network serving the existing leisure facilities. • Flooding risk in this area?
4.0 Clinical and Non-clinical Support:	
<p>4.1 The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions (Hard and Soft FM, CSSD, Pharmacy, Med Records etc.)</p>	<p>The total area of the site is large enough to accommodate a new replacement acute hospital, although the shape of the site with pinch points across its width imposes restrictions on the footprint that can be developed.</p> <p>Currently, CSSD, Stores and Laundry are located remotely on a site at Five Oaks and, although they could perhaps be relocated to the new site, it is anticipated that they would remain in their existing location.</p>

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site		
Item:	Response:	
5.0 Clinical Care and Patient Related Issues:		
5.1 The site should allow for the optimisation of clinical adjacencies and functionality (refer also to item 1.1 above).	Due to the restricted area of both of the individual sites, it will not be possible provide all the preferred ground floor accommodation at that level on either site. Therefore some compromise on clinical adjacencies will be required where some accommodation will have to be placed on the first floor.	
5.2 The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of services as part of a clear, sustainable, forward masterplanning strategy (refer also to item 1.1 above).	Being a city centre site of limited area, enclosed by roads or adjacent properties, there will be limited opportunities to expand the facilities within the boundaries of the site. Consequently, it may be necessary to consider incorporating internal 'shell space' which is not fitted out to facilitate future expansion in critical areas such as imaging and OT. It may be possible to add further floors to some areas if the structure and services' infrastructure is designed in such a way from the outset to facilitate such future construction.	
5.3 The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice	The site is large enough to design and construct a hospital to accommodate the required key functional content and to current space standards but, due to the shape of the site, it may not be possible to attain the preferred clinical relationships between some of the departments.	

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case **Date: 14th October 2013**

Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site	
Item:	Response:
5.4 Quality of patient environment including views and social spaces	The site is located on the coastal edge of St. Helier and should offer excellent opportunities for obtaining views out over the surrounding area. In a new development social spaces will be included for the benefit of staff, patients and visitors alike. In addition, the site is close to the commercial centre of St. Helier which will provide additional benefits and opportunities for staff and visitors in close proximity to the new hospital.
5.5 Convenience of access for friends, family and visitors and access to town facilities.	Transport links and access are excellent with the rest of the island. Convenient to shops, banks, restaurants.
6.0 Staffing and Support:	
6.1 The effect of the site on staff recruitment and retention at the time of transition	The existing acute hospital can remain operational with little disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site. The new hospital is closer to the centre of town and its commercial and social amenities and to the main bus station at Liberty Station for public transport. Providing that car parking is catered for, this site should be attractive to the staff and beneficial to their morale.
6.2 The ongoing effect of the site on staff recruitment and retention (access, convenience, travel etc.)	The new hospital will provide modern, larger accommodation meeting current standards with improved clinical and social facilities in a central location close to the existing hospital which should offer greater opportunities to attract and retain staff.
6.3 Staff, patient and visitor security relating to location and out-of-hours safety	This is a town centre site close to business and social areas and, as a result, its security should benefit from general activity and policing in the area

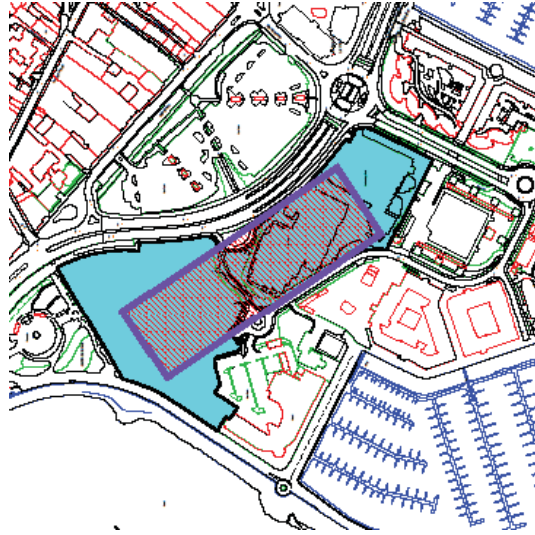
Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case Date: 14th October 2013

Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site	
Item:	Response:
7.0 Construction and Buildability:	
7.1 Ease of construction logistics including site clearance and levels, contamination, additional site specific measures	This site is close to excellent transport links. The existing leisure facilities will require to be demolished to clear the site. Due to being located on reclaimed land close to the waterfront, any basement works will require careful specification and detailing.
7.2 Access to site for construction vehicles, deliveries and waste removal	This site is close to excellent transport links.
7.3 Protection of existing services and avoidance of disruption during the build process	The existing acute hospital can remain operational with little to disruption to the existing staff and clinical services, other than any short term upgrades which may be necessary to implement in the immediate future, whilst the new hospital is constructed on this alternative site.

Site 14 + 28: Zephyrus / Crosslands / AquaSplash / Cineworld combined site: Environmental Assessment Information



Existing Proposed

1. Planning and Land Use

- Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan.
- Part of the site is currently occupied by Cineworld and part by Aqua Splash, a leisure swimming pool. These facilities would have to be re-provided elsewhere and the current buildings demolished to clear the site for alternative use.
- The site has been identified by Jersey Development Company as key development opportunities for enhanced financial services and housing. A detailed planning application for a financial district development is scheduled to be submitted in August 2012.
- Adjacent beach and gardens heavily used in the summer. Area used for annual 'Battle of Britain' celebrations - noisy aircraft.
- Anti-social behaviour at night-time from nearby social areas around Liberation Square.

2. Biodiversity and Nature Conservation

- The Waterfront part of the site is a flat, undeveloped site on reclaimed land.
- There will be an initial loss of habitat on the site but this may be mitigated by new landscape proposals associated with the new development. However, a site survey of flora and fauna should be carried out at the next stage to identify specific species present on site and if there are habitats on the site which support breeding, roosting and/or hibernation, for example for bats and nesting birds.

3. Landscape and Visual

- Good, open outlook to the south and west over the coast.
- A new hospital development with a floor area of approximately 60,000m² spread over four or five floors will have a significant impact on the character of the surrounding townscape.
- A new hospital development on this site will severely restrict the existing outlook from the premises along the old Esplanade.

4. Traffic, Transport and Access

- This site is excellent from a Transport point of view being on the main East-West transport corridor for vehicular traffic, at the centre of the existing and developing cycle routes and being virtually on all island bus services by way of being very close to the Transportation Centre (approximately 200m) and on the route of many bus services serving the west of the Island. Public transport access into the site should be considered.

- At centre of St. Helier. All roads radiate out of St. Helier from this area. Dual-carriageway gyratory underpass separates the two sites. The roads can get grid-locked.
- Bus services excellent – all services throughout the island terminate at adjacent Liberation Station. Potential for more people switching from cars to public transport
- Pedestrian connectivity to this site is close to existing desire lines and established crossings and routes.

5. Noise and Vibration

- The increased traffic, including emergency blue-light vehicles, generated by the new hospital location will generate additional noise and vibration to the adjacent areas, particularly to the nearby housing and hotel.

6. Water Resources

- Water Infrastructure is good. May be prudent to store water on site in the event of an emergency. To provide additional security of supply) a new connection to the water main running along the Esplanade may entail a large road crossing.
- The drainage capacity is considered satisfactory for the envisaged development

7. Air Quality and Pollution

- The site is adjacent to the coast and exposed to southerly and westerly gales.
- Existing air quality affected by La Rue de la Liberation, the dual carriageway which separates the two sites.

8. Ground Conditions and Contamination

- This site is on reclaimed ground very close to the shore.
- It is thought that the reclaimed ground may have been made up from mixed contaminated material. Site investigations to be carried out to verify the nature of the ground material.
- The water table will be high and extensive tanking will be required to any basement construction.
- Areas around are prone to flooding; perhaps more from back-up of drains than sea breaching the esplanade walls.

9. Waste Management

- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- Consider potential re-cycling of demolition materials.
- Contractor to minimise waste during construction.

10. Archaeology and Historical Buildings

- The original esplanade sea wall forms the northern boundary of the car park site.
- As this site is on reclaimed ground, there are no other apparent issues relating to historic buildings or archaeological interest on these sites.

241. **Site development proposals:** Each site option has been developed on the basis of providing all accommodation to current space and design standards. The options for developing the Zephyrus / Westwater / Aquasplash / Cineworld site and the Warwick Farm site have been based on a complete new build, single phase solution. The Existing General Hospital site option has been based on complete new build in a phased manner except for retention of the listed Granite Block (although its use will change) and a complete refurbishment of the Parade Block (including external cladding).
242. Details of each option with additional plans and building arrangements suggesting how each site could be developed are included below. In addition the capital costs are summarised for each option within section 2.7.4.

2.6.1.2 Existing General Hospital site: Site 1

243. Figure 3.4 below provides an overview plan suggesting how, potentially, the Existing General Hospital site could be redeveloped including the use of additional land as a result of the acquisition of the corner site and the hotel site adjacent to the hospital.
244. The Existing General Hospital site benefits from its current status of delivering health care services from a site in the centre of St Helier to the population of Jersey. However, to provide new accommodation for patients and staff that complies with current standards and healthcare guidance, (for example, the provision of single bedroom in-patient accommodation, and the provision of larger operating theatres to accommodate latest surgical and diagnostic equipment) and, also, reflecting the increase in bed numbers predicted through the demographic and case mix modelling that has been undertaken as part of this study, will require the floor area to increase from its current c.38,500m² to a floor area of c.63,700m². This increase in floor area will challenge designers' abilities to develop solutions which can be constructed on a phased basis whilst current operations of the hospital remain in place and will challenge the urban context of St Helier with its increased building mass.

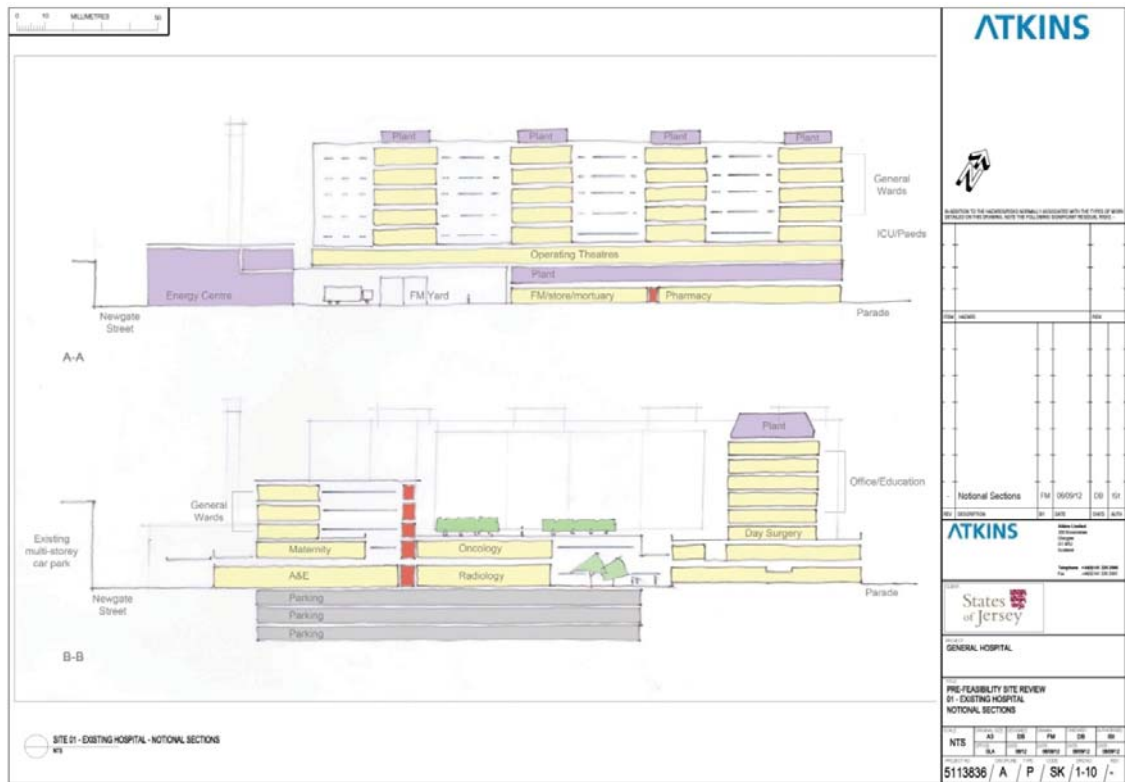


Figure 2.6: Site 1 -Existing General Hospital potential site development plan

245. The constraints imposed by the existing perimeter roads should not be underestimated and any future expansion to provide additional beds, (should, for example, community health services not reduce the pressure on in-patient beds as planned), would be significantly compromised. It is understood from subsequent discussions with the planners that a maximum of 9 storeys of accommodation would be permitted on the site and, whilst it may have been preferable from an economics perspective to exceed this limit, it is believed that design and construction solutions could be developed to comply with this constraint.
246. Due consideration will require to be given to measures that will require to be put in place to minimise the impact of this major reconfiguration upon the patients, visitors and staff who will continue to use the facility. The redevelopment envisaged for the General Hospital site will result in the production of noise, vibration and dust and careful planning will be required to avoid adverse impact upon the above group.
247. Section 2.7.4.1 below details the capital costs for the development of the Existing General Hospital Site which total approximately £440m.



Figs 2.7 and 2.8: Existing General Hospital: potential height in number of storeys



2.6.1.3 Warwick Farm: Site 10

248. The redevelopment of the Warwick Farm site entails the relocation of some existing structures which are already in ownership of the States in addition to the purchase of some private dwellings to enable appropriate access to the site in terms of construction and also the ongoing operation of the hospital on this site. Such issues have been incorporated into the capital costs developed to assess this option.



Figure 2.9: Site 10 - potential Warwick Farm site development plan

249. The Warwick Farm site presents a different set of challenges from a planning perspective. The principal challenge relates to the fact that development of Warwick Farm for health care use is not in accordance with the current Island Plan. To develop Warwick Farm to create a 300+ bed hospital on the site would require the Island Plan to be amended and would result in a Public Inquiry or a States Decision based upon a report and proposition brought by the Minister for Planning Environment, the duration and outcome of which would be difficult to predict. It is understood that a maximum of 3 storeys would be permitted on the site, and whilst this constraint could probably be accommodated at the northern end of the site, it is likely that a greater number of storeys of accommodation would be required at the southern end of the building to accommodate the preferred departmental relationships on each floor as well as multi-storey car parking below the main entrance floor level. The natural ground levels of the site fall away to the south and east and there is a difference in ground levels of approximately 20 metres from north to south over the site which would accommodate this. In addition, the diversion / re-routing

of the green road would require public consultation and, whilst likely to be ultimately achievable, may result in initial delays to the procurement process. Development of the Warwick Farm site would likely require the acquisition of properties that are in the immediate vicinity of the site, preferably by a negotiated settlement. The possible addition of further land to the south of the site and the diversion of the green road to the east of the site could, perhaps, assist in reducing the overall height of the building. Flexibility and expansion opportunities are key considerations in the selection of preferred options for healthcare sites, and Warwick Farm could satisfy these expectations provided the planning issues could be resolved.

250.
- Section 2.7.4.2 below details the capital costs for the development of the Warwick Farm Site which total £392m.



Fig. 2.10: Warwick Farm site plan: potential height in number of storeys

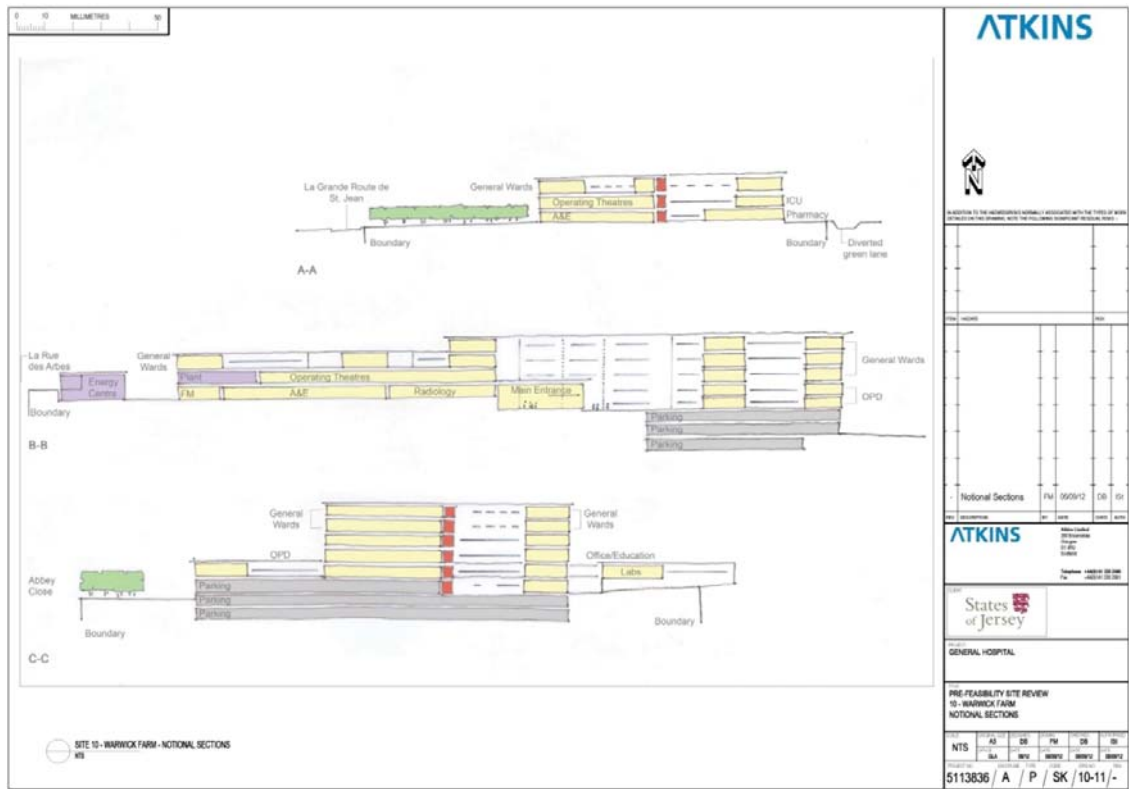


Fig. 2.11: Warwick Farm site sections: potential height in number of storeys

2.6.1.4 Zephyrus/Crosslands/Aquasplash/Cineworld: Site 4 + 28

251. The redevelopment of the Zephyrus / Crosslands / Aquasplash / Cineworld site entails the relocation and rebuilding of a number of existing facilities to enable construction of the new hospital on this site, including the swimming pool and cinema. Such issues have been incorporated into the capital costs developed to assess this option.



Figure 2.12: Site 14+28 - potential Zephyrus / Crosslands / Aquasplash / Cineworld site development plan

252. With regards this site, it is envisaged that there will be much public debate about the appropriateness of a large hospital development on such a prominent site close to the centre of St Helier. Whilst the scale and massing of the building would not be significantly different to the adjacent hotel and the office developments to the north of the site, it is anticipated that due consideration would require to be given to the impact of traffic generated by the facility and whether the possible expansion of the current hotel onto the western end of Site 14 + 28 (or the development of flatted accommodation which currently has consent) would be compromised by the development of the hospital. There is limited spare site available once approximately 18,300m² of ground floor accommodation is provided and the vehicular egress through the tunnel below the dual carriageway from the car park site would impact upon any ground floor plan envisaged.
253. Section 2.7.4.3 below details the capital costs for the development of the Zephyrus / Crosslands / Aquasplash / Cineworld Hospital Site which total approximately £492m.



2.7 Evaluation of short-listed sites

2.7.1 Evaluation process

254. The initial short-listed sites have been subjected to further detailed review using the same benefits appraisal criteria, taking into consideration further information gained from a variety of sources associated with planning, infrastructure, crime prevention, construction and operational logistics (refer below).
255. The scoring of each short-listed option against the benefits criteria again results in a non-financial appraisal score for each option. This non-financial score is then adjusted to take into account the risks associated with each project to produce a risk adjusted score and that risk adjusted score is then evaluated in the light of the costs associated with each site option. These costs were developed using an economic model designed to establish the net present costs associated with each site. In addition to the capital construction costs associated with each site option, relevant revenue charges have also been included in the economic model.
256. The resulting net present costs associated with each option are aligned with their risk adjusted benefits to identify the site option which delivers the greatest benefit compared to the costs incurred
257. Where risks are known and quantifiable, they have been included within the capital costs associated with the assessment of each short-listed option as developed through the detailed capital cost process. Detailed capital costs associated with the short-listed options are included within the Financial Case of this Strategic Outline Case.
258. The risk register identifies further risks which are not quantifiable at this present time, within the confines of this project. As the project progresses, such risks will be either mitigated through management action or become more fixed and quantifiable. At this Strategic Outline Case stage, these risks are identified and the relative extent of each risk has been balanced against the benefits associated with each short-listed option.

2.7.2 Benefits and risk evaluation

Short-listed Sites:**Non-Weighted Benefits Ranking: 23rd August 2012**

States of Jersey Pre Feasibility Project

Key Benefits criteria selected for shortlisting and Non Financial appraisal - NON-WEIGHTED

Section	Set	Subset	Treatment	Sub Weighting	Scorings		
					Site 01: Existing General Hospital Site	Site 14+28: Zephyrus / Crossland / Aquasplash / Cineworld	Site 10: Warwick Fm
				RANK	3	1	2
				Non-Weighted Score	164	179	167
				Converts to %	91.6%	100.0%	91.3%
1.0	Massing and Planning Issues			Section 1.0 Ranking	1	2	3
1.1	The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.			Yes/No	Yes	Yes	Yes
1.2	The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy and HSS strategy?				10	7	1
1.3	The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage				7	4	1
1.4	Site required for the total hospital development should be immediately available without major infrastructure and other issues				4	1	7
				Section 1.0 Sub-Total	21	12	9
2.0	Transport and Access Issues			Section 2.0 Ranking	2	1	3
2.1	The site should afford ease of access to the majority of the island's population				10	10	7
2.2	The site should allow efficient and effective access by private and commercial transport				10	10	7
2.3	The site should allow efficient and effective access by public transport				10	10	4
2.4	The site should allow adequate parking facilities available for staff, patients and visitors				7	7	7
2.5	The site should allow efficient and effective access by emergency vehicles				7	7	7
2.6	The site should allow efficient and effective access for separating traffic flows				4	7	7
				Section 2.0 Sub-Total	48	54	34
3.0	Response to the Island's Infrastructure and Geography			Section 3.0 Ranking	1	2	3
3.1	The site should present minimal risks to its safe and on-going running in terms of the weather and environment				10	7	7
3.2	The site should be capable of supporting key infrastructure for the hospital				10	10	7
				Section 3.0 Sub-Total	20	17	14
4.0	Clinical and Non Clinical support Functionality			Section 4.0 Ranking	2	2	1
4.1	The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions				7	7	10
				Section 4.0 Sub-Total	7	7	10
5.0	Clinical Care and Patient related Issues			Section 5.0 Ranking	3	1	1
5.1	The site should allow for the optimisation of clinical adjacencies and functionality				7	7	10
5.2	The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of all acute and non acute services as part of a clear, sustainable, forward masterplanning strategy				4	7	10
5.3	The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice				7	10	10
5.4	Quality of patient environment - views and social spaces				7	7	7
5.5	Convenience of access for friends, family and visitors and access to town/shopping facilities				10	10	4
				Section 5.0 Sub-Total	35	41	41
6.0	Patient, Staffing and Support Issues			Section 6.0 Ranking	3	1	1
6.1	The effect of the site on staff recruitment and retention and patient disruption at the time of transition				7	10	10
6.2	The ongoing effect of the site on staff recruitment and retention				10	10	10
6.3	Staff, patient and visitor security relating to location and out-of-hours safety				7	7	7
				Section 6.0 Sub-Total	24	27	27
7.0	Construction and Buildability Issues			Section 7.0 Ranking	3	2	1
7.1	Ease of construction logistics				1	4	7
7.2	Access to site for construction vehicles, deliveries and waste removal				4	10	10
7.3	Protection of existing hospital services and avoidance of disruption during the build process				4	10	10
				Section 7.0 Sub-Total	9	24	27
				Non-weighted Score	164	179	167
				RANK	3	1	2

Short-listed Sites:

Non-Weighted Risk Ranking: 23rd August 2012

States of Jersey Pre Feasibility Project

Key Risk criteria selected for shortlisting and Non Financial appraisal

Section	Set	Subset	Sub Weighting	Scorings			
				Site 01: Existing General Hospital Site	Site 14+28: Zephyrus / Crossland / Aquasplash / Cineworld	Site 10: Warwick Fm	
				RANK	1	3	2
				Non-Weighted Score	102	129	115
				Convert to %	79.1%	100.0%	89.1%
The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.				Yes/No	Yes	Yes	Yes
1.0	PLANNING AND ENVIRONMENT			100%	1	3	
1.1	Failure to obtain necessary Planning consents			60%	5	20	1
1.2	Further provision / costs required to satisfy SEA / EIA requirements			25%	3	12	1
1.3	Public opinion and local media against selected site			15%	4	16	
					12	48	3
2.0	TRANSPORT			100%	1	2	
2.1	failure to overcome transport issues raised by TIA and environmental issues			75%	2	12	
2.2	Site does not help to achieve reduction in car usage			25%	2	2	1
					4	14	1
3.0	SERVICES INFRASTRUCTURE			100%	1	1	
3.1	Electricity: Increased cost of providing robust power supplies			35%	4	4	
3.2	Water supply: Increased cost of providing robust water supplies			30%	4	8	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems			35%	8	4	
					16	16	2
4.0	CLINICAL AND NON-CLINICAL SUPPORT			100%	3	3	
4.1	Failure to meet preferred departmental and room relationships			60%	9	9	
4.2	Risk of disruption to existing health services			40%	20	4	
					29	13	
5.0	STAFF AND PATIENT ISSUES			100%	2	1	
5.1	Location of new hospital is not readily accessible to majority of island's population			60%	3	3	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital			40%	6	3	
					9	6	1
6.0	CONSTRUCTION			100%	3	2	
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay			75%	16	4	
6.2	Proposed construction overheats Jersey construction economy			25%	4	8	
					20	12	1
7.0	DEVELOPMENT OPPORTUNITY			100%	1	3	
7.1	Opportunity impact inherent with development of this site			100%	12	20	1
					12	20	1
				Non-weighted Score	102	129	115
				RANK	1	3	2

Short-listed Sites:

Combined Non-Weighted Benefits and Non-Weighted Risk Ranking: 23rd August 2012

States of Jersey Pre Feasibility Project

Key Benefits criteria selected for shortlisting and Non Financial appraisal

Section	Set	Subset	Sub Weighting	Scorings		
				Site 01: Existing General Hospital Site	Site 14-28: Zephyrus / Crossland / Aquasplash / Cineworld	Site 10: Warwick Fm
		The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.	Yes/No	Yes	Yes	Yes
BENEFIT RANK				3	1	2
Weighted Score				164	179	157
Convert to %				91.6%	100.0%	93.3%
RISK RANK				1	3	2
Weighted Score				102	129	115
Convert to %				79.1%	100.0%	89.1%
OVERALL RANKING				1	1	3
Benefit Ranking x Risk Ranking				3	3	4

2.7.3 Risk register

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 01 - EXISTING GENERAL HOSPITAL SITE 23 August 2012

Risk Id	Description of Risk	IMPACT Rating (A)	L-HOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	1	5.0	1660 hospital 'granite building', gatehouse and setting are listed	
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	1	3.0		
1.3	Public opinion and local media against selected site	4	1	4.0		
	OVERALL PLANNING RISK			4.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	2	1	2.0	Concerted works (one-way system) around three sides of the hospital	
2.2	Site does not help to achieve reduction in car usage	2	1	2.0		
	OVERALL TRANSPORT RISK			2.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	1	4.0	Good - 2 x 11kV open ring supplies	
3.2	Water supply: Increased cost of providing robust water supplies	4	1	4.0	Infrastructure good, allowing for continued supply in the event of bursts. Some rationalisation of site may be required to provide efficient supply	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems	4	2	8.0	capacity satisfactory for envisaged development	
	OVERALL INFRASTRUCTURE RISK			5.3		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	3	9.0		
4.2	Risk of disruption to existing health services	4	5	20.0		
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			14.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	1	3.0		
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital and ensuing construction	3	2	6.0		
	OVERALL STAFF AND PATIENT RISK			4.5		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	4	16.0		
6.2	Proposed construction overruns Jersey construction economy	2	2	4.0		
	OVERALL CONSTRUCTION RISK			10.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	4	3	12.0	Purchase of adjacent properties	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			12.0		
	OVERALL SITE RISK			8.1		

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case

Date: 14th October 2013

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 14+28 - ZEPHYRUS / CROSSLAND / AQUASPLASH / CINEWORLD 23 August 2012

Risk Id	Description of Risk	IMPACT Rating (A)	LHOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	4	20.0	Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan	
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	4	12.0	Adjacent beach and gardens heavily used in the summer	
1.3	Public opinion and local media against selected site	4	4	16.0	high profile sites	
	OVERALL PLANNING RISK			16.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	4	3	12.0	Roads are busy around perimeter of site. Impact of blue light access	
2.2	Site does not help to achieve reduction in car usage	2	1	2.0	Town centre location close to main bus station at Liberation Station	
	OVERALL TRANSPORT RISK			7.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	1	4.0	11kV supply with good capacity	
3.2	Water supply: Increased cost of providing robust water supplies	4	2	8.0	Water infrastructure is good. May be prudent to store water on site in the event of emergency	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems	4	1	4.0	capacity satisfactory for envisaged development	
	OVERALL INFRASTRUCTURE RISK			5.3		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	3	9.0	ground floor footprint – would require a compromise in preferred departmental accommodation / relationships and a split between the ground floor accommodation on both sites	
4.2	Risk of disruption to existing health services	4	1	4.0	There are no health services on this site	
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			6.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	1	3.0	Still close to the majority of the island's population	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	1	3.0	Town centre site close to the existing hospital and close to public transport, retail and commercial facilities	
	OVERALL STAFF AND PATIENT RISK			3.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	There are no health services on this site	
6.2	Proposed construction overruns Jersey construction economy	2	4	8.0		
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	4	5	20.0	alternative potential opportunities for this site	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			20.0		
	OVERALL SITE RISK			9.1		

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 10 - WARWICK FARM
23 August 2012

Risk Id	*Description of Risk	IMPACT Rating (A)	L-HOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	3	15.0		
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	4	12.0	Site is within the Green Zone and does not accord with the Island Plan spatial strategy. A small part of the site has a covenant on it preventing building	
1.3	Public opinion and local media against selected site	3	3	9.0	Transport and landscape will be key issues	
	OVERALL PLANNING RISK			12.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	2	6.0	Route from St. Helier can get congested at Queen's Road	
2.2	Site does not help to achieve reduction in car usage	3	4	12.0	Out of town site - very limited pedestrian possibilities for surrounding area	
	OVERALL TRANSPORT RISK			9.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	2	8.0	only a single 11kV supply to the site with limited spare capacity	
3.2	Water supply: Increased cost of providing robust water supplies	4	2	8.0	Water infrastructure surrounding the site is limited, and close to capacity at peak	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems	4	1	4.0	capacity satisfactory for envisaged development	
	OVERALL INFRASTRUCTURE RISK			6.7		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	1	3.0	The site should be large enough to accommodate the preferred ground floor footprint plus associated access zones and car parking	
4.2	Risk of disruption to existing health services	4	1	4.0	There are no health services on this site	
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			3.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	2	6.0	Still close to the majority of the island's population	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	2	6.0	Out of town location – not so convenient. No supporting social and commercial facilities	
	OVERALL STAFF AND PATIENT RISK			6.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	There are no health services on this site	
6.2	Proposed construction overruns Jersey construction economy	2	3	6.0		
	OVERALL CONSTRUCTION RISK			5.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	3	4	12.0	re-routing green parish lane	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			12.0		
	OVERALL SITE RISK			7.7		

2.7.4 Capital cost estimates of short-listed sites

259. The Cost Estimates have been omitted due to commercial confidentiality.

2.7.5 Preferred site recommendation

260. In concluding the Jersey Hospital Pre-Feasibility Spatial Assessment project, it is apparent that there are a number of positive and a number of negative issues associated with each of the shortlisted sites examined. The assessment of benefits and risks and the incorporation of financial criteria have allowed a ranked order of sites to be created and through sensitivity analysis, the robustness of the ranked order has been tested.
261. The Zephyrus / Crossland / Aquasplash / Cineworld site, (site 14 + 28), has merits in respect of its accessibility, its proximity to public transport, its proximity to the existing General Hospital and its ability to accommodate a design solution which would provide good clinical relationships. The fact that it could be constructed and commissioned without impacting upon the existing hospital services delivered from the Parade site, is also beneficial. However the prominence of the site and its proximity to the existing financial services facilities would probably result in negative sentiment and would likely result in the lodging of robust objections whilst any proposed development was considered through the Planning process. Furthermore, the cost premium associated with the development of a healthcare facility on this site, arising from the requirement to acquire leasehold interests over the existing leisure facilities and re-provide in other locations, significantly impacts upon the Net Present Cost of this option. As a consequence, it is recommended that this option is not examined in any further detail.
262. The Warwick Farm site, (site 10), has the potential to allow the development of a new healthcare facility that would allow the provision of excellent clinical relationships, that would permit the re-provision of acute healthcare services without impacting upon current delivery solutions and would allow future alteration or expansion as clinical technology and requirements change over the next 3 decades. The development could be provided in a single phase and would allow a co-ordinated transfer of services from the existing Parade site. Car parking could be provided within the cartilage of the site and the topography of the land in that location could allow car parking to be discretely concealed in semi-basement levels at the southern end of the site. The development of this site for healthcare use does not accord with the Island Plan and it will therefore be necessary to have a Public Inquiry to consider the Planning implications. This will impact upon overall programme and result in risk that cannot be controlled by the Department for Health and Social Services. Other Planning issues include the objections that will undoubtedly be lodged by adjoining proprietors and the requirement to re-direct the existing Green Road that bi-sects the site and the

resolution of the impact of the listed German store adjacent to La Fredee Lane. It is anticipated that a number of dwellings directly affected by the development of any healthcare facilities proposed for the Warwick Farm site, would require to be acquired by the States and this would introduce a further risk in respect of timings of negotiations and site access. Initial pre-feasibility studies of the site suggest that the proposed development could be restricted to no more than 3 storeys, however more detailed investigations would be required to validate this assessment. The Net Present Cost of the hospital development on this site is the lowest of the 3 options examined and this contributes to the joint first ranking this option secures. The risks associated with the securing of Planning Consent for a 63,500m² hospital on the Warwick Farm site are significant and cannot be removed without either a Public Inquiry finding in its favour or other political direction being secured.

263. The Existing General Hospital site, (site 1), currently provides approximately 38,500m² of clinical and support accommodation contained within a site footprint of approximately 17,600m². As a consequence of the activity modelling that has been undertaken, the overall floor area of the new healthcare facility is predicted to be in the region of 63,500m² and with the acquisition of the adjacent hotel properties in Kensington Place, this would be contained within a site footprint of approximately 20,760m². Whilst the planning risks associated with the redevelopment of the existing site are perceived to be lower than the other 2 shortlisted options, the increase in floor area proposed is significant and as a consequence any application for consent may be subject to more intensive scrutiny. It will be challenging to undertake such a significant re-building programme on the existing General Hospital site, whilst current healthcare services continue to be delivered from this location. There are risks inherent in such development and they will require careful management to ensure they do not materialise and impact adversely on patient care or staff activity. Initial pre-feasibility site development studies have revealed that a phased redevelopment of the site is likely to be possible, although there will be a time penalty during the construction phase of approximately 2 years. It is also likely that the 63,500m² of accommodation required will be capable of being provided within newly constructed buildings which do not exceed 9 storeys in height. As a consequence of the current road patterns around the perimeter of the site, it is unlikely that the site could accommodate further healthcare facilities and therefore any future expansion would require to be provided through additional / external site. More of the risks associated with the redevelopment of the existing General Hospital site are within the control of the Department for Health and Social Services and hence the risk score associated with this option is lower than other options. There is a financial premium associated with the development of this site, in terms of the extended duration of construction activities and the inflationary impact of same and a further financial penalty inherent through the nature of phased redevelopment and protection measures that need to be in place to protect patients, staff and visitors.

264. In summary, the cost / risk / benefit analysis of the Warwick Farm and existing General Hospital sites do not identify a clearly preferred option to be taken forward. The decision on which option to proceed with can be encapsulated in terms of proceeding with the lower risk, higher cost, lower functionality solution proposed for the existing site or alternatively proceeding with the higher risk, lower cost, better functionality solution envisaged for the Warwick Farm site. If Planning Risk associated with Warwick Farm cannot be mitigated through discussions with political leaders, then the recommended option would be the redevelopment of the existing General Hospital site. However, if comfort could be secured that the risks associated with Planning and acquisition of affected adjoining properties could be mitigated, then the development of the Warwick Farm site could provide a healthcare facility for the 21st century of which the States of Jersey could be proud.

2.8 Ministerial Oversight Group review

265. The outcome of the initial phase of site assessment was presented to the Ministerial Oversight Group on 11th September 2012. At this time, the estimated costs of acquiring the interests in the Zephyrus/Crosslands/Aquasplash/ Cineworld sites meant this performed less well than the others short-listed, but the existing General Hospital site and the Warwick Farm site could not be meaningfully separated in assessment scores. The existing General Hospital Site had less planning risk, but a higher cost and dis-benefits associated with the necessity to phase development whilst the existing hospital was operational. The Warwick Farm site had significant planning risks associated with the site being out of keeping with the Island Plan and involving a large development in a rural setting, and had associated transport dis-benefits, but offered the benefits of a new build site with optimal configuration of clinical departments.
266. The Ministerial Oversight Group therefore asked for a number of challenges on the brief and further sensitivity analyses to be carried out relating to the costs of transport services and property purchase and disposal. These were considered by the Ministerial Oversight Group on 25th September 2012 at which time the Group asked for a site search to be carried out in consultation with the Minister for Planning and Environment to ensure no alternative site should be considered, and that further detailed work on configuration of shortlisted sites should be undertaken including the development of 3 dimensional images to enable the trade-offs of different sites to be understood. This work was undertaken under the auspices of a sub-group of the Ministerial Oversight Group, to which the Minister for Planning and Environment and Transport and Technical Services were invited to attend.

2.9 Additional site search

**General Hospital pre-feasibility spatial assessment
project**

CONFIDENTIAL

Outcome of site validation process

November 2012

Introduction

On the 25th September 2012, the Health and Social Services Ministerial Oversight Group considered the outcome from the work undertaken by WS Atkins and agreed that further work was required on optimal site configurations on each of the shortlisted sites in preparation for a public consultation exercise.

As a result of consideration by the Council of Ministers on the 4th October, 2012, the Minister for Planning and Environment requested that a site validation exercise be carried out to ensure that:

- A. The potential of existing hospital sites has been fully examined
- B. All potential sites in and immediately adjacent to the Built up Area of the Town of St Helier¹ have been considered
- C. The assessment process adequately considers relevant strategic environmental issues.

A site validation process was subsequently established (see **Appendix A**).

Outline Approach

The following approach has been undertaken:

- a) The Minister for Planning and Environment identified sites that he feels are worthy of further consideration
- b) A review was undertaken to validate that all appropriate sites within and immediately adjacent to the Built up Area of the Town of St Helier had been appropriately considered

In line with the process at Appendix A, identified sites have been reviewed against key criteria in order to ascertain whether these should be provided to WS Atkins to be subject to a long-list evaluation. This review has identified 5 stages of assessment before the site should be considered for the long listing evaluation process:

- | | |
|--------------------------------|---|
| Stage 1 – Size: | can it meet the required footprint? |
| Stage 2 - Site Access: | has the site got suitable access to roads and infrastructure |
| Stage 3 - Topology: | can it achieve the overall gross floor area required with appropriate massing for the site? |
| Stage 4 - Restrictions: | are there site restrictions, such as covenants which would prevent site availability and development for 3-5 years. |
| Stage 5 - Other issues: | are there other issues, such as ownership and current function that would impact on the availability. |

Sites passing through the 5th stage would be provided to Atkins to be considered as part of a long listing process.

Sites Identified

Ministerial Oversight Group

¹ Built-up Area of Town of St Helier, as defined in 2011 Island Plan p.105

Hospital project – Site validation process

On the 25th September, the Ministerial Oversight Group identified that it wished two sub-options of the waterfront option shortlisted by Atkins to be reviewed. The sub options were identified as:

- Including Jardins de la Mare and Crossland/Zephyrus but excluding the waterfront pool and gym complex
- Including Jardins de la Mare and Crossland/Zephyrus but excluding the waterfront pool and gym complex and the leisure complex.

It is proposed that above should be further considered by WS Atkins for long listing

Minister for Planning and Environment

On the 30th October, the Minister for Planning and Environment issued a note (see **Appendix B**) identifying sites already considered he regarded as requiring further review and new sites that, for the sake of completeness, should be identified and reviewed:

Sites already considered to be reviewed:

- Westmount (Overdale Hospital/Fields 1550 and 1551/Westmount Quarry and People's Park)
- Existing hospital site with additional land acquisition

It is proposed that above should be further considered by WS Atkins for long listing

New Sites:

- Monte de la Ville (swimming pool and land to South of Fort Regent)
- Grainville School
- Norman's site at Five Oaks

It is proposed that above should be included as part of the review of the validation of sites within the built up area

Outcome of the Built Up Area validation process

The Review

A review of the build up area was undertaken on the 1st November 2012 at the Environment Department using its Geographical Information System to assess potential sites against the stages identified above. The review was undertaken as identified in **Appendix C** and this identified the following sites to be assessed as part of the process (see **Appendices D & E**):

1. Mont de la Ville (swimming pool and land to South of Fort Regent)
2. Grainville School
3. Grainville playing fields
4. Norman's site at Five Oaks
5. Fields off Highview Lane, Mont a L'Abbe
6. Fields adjacent to St. Saviour's Church, St Saviour
7. St Andrew's Park
8. Fields opposite St Saviour's School
9. Fields to the North of Five Oaks
10. Fields off Trinity Hill
11. Fields off La Grande Route de St Jean

Outcome

As identified at **Appendix D** the review of the built up area has identified no sites which should clearly be considered as part of the long-listing process.

Consideration by the Project Board Sub-Group

On the 8th November, 2012 the site validation process was considered by the Project Board Sub-Group, which agreed that sites identified below should be submitted to the long-listing process.

Recommendation: Sites to be submitted for long-listing

The following sites should be submitted to the long-listing process:

1. Westmount (Overdale Hospital/Fields 1550 and 1551/Westmount Quarry and People's Park)
2. Existing hospital site with additional land acquisition
3. Waterfront sub-options:
 - 3.1 Including Jardins de la Mare and Crossland/Zephyrus but excluding the waterfront pool and gym complex
 - 3.2 Including Jardins de la Mare and Crossland/Zephyrus but excluding the waterfront pool and gym complex and the leisure complex.

2.10 Additional revised long-list site options

267. As a consequence of the additional site search, the following sites were added to the original long-list of sites for comparative long-list assessment and evaluation:

- Site 1B: extended General Hospital site;
- Site 2B: Westmount Health Quarter;
- Site 14B: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer;
- Site 14C: Zephyrus / Crosslands / Les Jardins de la Mer.

268. The technical assessment information for these additional sites is included in section 2.10.1 below and the associated site development plans are included in section 2.10.2 below.

Site 01B: Extended General Hospital

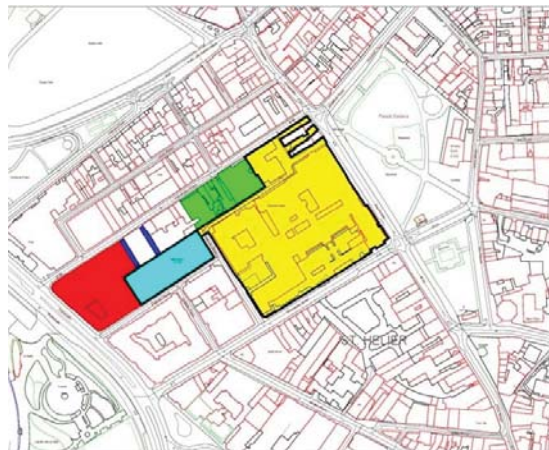
2.10.1 Technical information

2.10.1.1 Site 01B: Extended General Hospital

(Including sites of adjacent properties on the corner of Kensington Place and The Parade, the Patriotic Street Car Par, 14 Patriotic Street, 60 Kensington Place and 70-72 Esplanade)



Existing



Proposed

1. Planning and Land Use

- Existing hospital; town centre location, brownfield site close to multi-storey car park and other facilities.
- Currently approx. 38,900m² on site area of 17,700m², excluding adjacent multi-storey car park. Potential to increase site area by 11,000m² by purchasing adjacent properties, which have to be demolished to clear the site for alternative use.
- Accords with Island Plan spatial strategy and healthcare facility policy.
- Potential heritage issues raised by existing 1860 hospital 'granite building', gatehouse and setting are listed and with listed buildings in Edwards Place affected by potential site expansion options.
- Site within area of Archaeology Potential.

2. Biodiversity and Nature Conservation

- The site is a densely developed city centre site with minimal soft landscaping and little evidence of breeding wildlife of special interest. There will probably, however, be roosting bats in the area.
- The existing hospital site overlooks Parade Gardens, a maturely landscaped urban park and the properties on the Esplanade have an open outlook to the southwest over Les Jardins de la Mer and on to the shore and St. Aubin's Bay.

Site 01B: Extended General Hospital

3. Landscape and Visual

- Minimal landscape on the actual site.
- Visual outlook poor from the site onto Gloucester Street, Newgate Street and Kensington Place, but overlooks Parade Gardens to the north-east over The Parade.

4. Traffic, Transport and Access

- Congested roads (one-way system) around three sides of the hospital.
- Limited car parking on site; adjacent 613-space multi-storey car park.
- Particularly congested around the Out-patients entrance.
- There are many existing vehicle and pedestrian entrances covering ambulance, facilities management, staff, etc. A rationalisation of this would be a benefit in any redevelopment proposal.
- If the site of the Patriotic Street multi-storey car park is used for the redevelopment of the hospital, an alternative central location will require to be provided for the 622 car parking spaces displaced.
- Other than consideration of growth and construction traffic, there will be little change in traffic impact to the existing.
- Redeveloping the site would provide an opportunity to review the interfaces between the Hospital and the surrounding transport infrastructure/highways.

5. Noise and Vibration

- City centre site, already subject to traffic noise, vibration and emergency sirens associated with the existing hospital.
- No significant change in noise and vibration emissions with the proposed development.

6. Water Resources

- Infrastructure good, allowing for continued supply in the event of bursts. Some rationalisation of site may be required to provide efficient supply.
- Some increase in demand arising from potential 20% increase in bed numbers from approx. 250 to approx. 300.
- Drainage: capacity satisfactory for envisaged development

7. Air Quality and Pollution

- City centre site with air quality affected by traffic congestion.
- Existing hospital, multi-storey car park and commercial property site.

8. Ground Conditions and Contamination

- Brownfield site which has been developed as a hospital over 150 years - potential ground contamination.
- Carry out ground investigations to ascertain risks prior to any demolition and construction works.

9. Waste Management

- Existing hospital has refuse collection once a day.
- Consider potential re-cycling of demolition materials.

- Contractor to minimise waste during construction.

10. Archaeology and Historical Buildings

- 1860 hospital 'granite building', gatehouse and setting are listed (Ref AT1003).
- The site is within the St. Helier area of Archaeology Potential, where there has been evidence of earlier human occupation.
- It is recommended that a desk-based assessment of this site is carried out as part of the full EIA for this site.

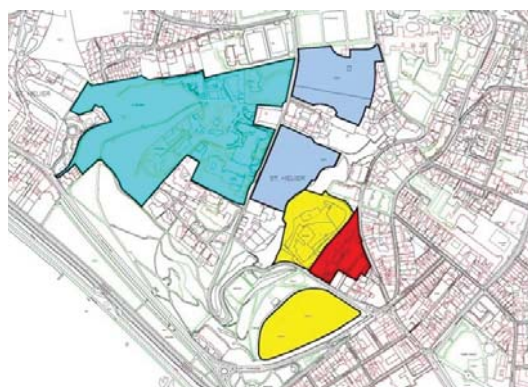
Site 02B: Westmount Health Quarter

2.10.1.2 Site 02B: Westmount Health Quarter

(Including Overdale Hospital and the Fields 1550 and 1551 on Westmount Road (Site 2A), Westmount Quarry (Site 19), and the People's Park)



Existing



Proposed

1 Planning and Land Use:

- Total potential site area of 119,554 m² comprising 63,150m² at Overdale Hospital, 16,500m² at Field 1550 (Site 23), 13,400m² at Field 1551 (Site 24), 13,004m² at Westmount Quarry (Site 19), and 13,500m² at People's Park.
- Approximately 83,050m² combined site area between Overdale Hospital and the adjacent Fields on an out of town centre prominent site on top of a hill.
- The Overdale Hospital site includes a significant protected valley (of an area in the order of 25,000m²) which will be precluded from any area which can be developed.
- Accords with Island Plan spatial strategy and healthcare policy.
- Site is within the Green Backdrop Zone.
- The combined site area includes the People's Park with the potential to create an underground car park with a replacement park reinstated on top.
- The existing community healthcare facilities would probably have to be re-provided elsewhere to allow the current buildings to be demolished to clear the site for alternative use

2 Biodiversity and Nature Conservation:

- There is extensive open space and mature landscaping around and within the combined sites.
- Any new development within the Overdale site will be contained within the upper area of the site, perhaps linking across to the adjacent Fields and will not extend into the protected valley area below.
- There will be nesting birds and roosting bats in the vicinity of all the individual sites contained within the overall development area. Subsequent site surveys will be required to establish the extent and species.

Site 02B: Westmount Health Quarter

- There will be an initial loss of habitat on both the Overdale Hospital site and the People's Park but this may be mitigated by new landscape proposals associated with the new development.
- 3 Landscape and Visual:**
- Visual prominence of a large building complex on a prominent site on the top of a hill will be a key planning issue.
 - The existing Overdale Hospital site has substantial mature landscape with significant tree planting, particularly around the protected Le Val Andre at the lower, western end of the site.
- 4 Traffic, Transport and Access:**
- Only single bus service (No. 19) - frequency and capacity would require to be increased.
 - Restricted road route climbing up Westmount Road.
 - Alternative longer route from Queen's Road - poor junctions and congestion at times.
 - Congestion at times at adjacent crematorium.
 - Restricted vehicular access into the Westmount Quarry site. If it was anticipated that vehicle traffic was to increase to this area then the existing road junction at Cheapside would need to be reviewed.
 - If the People's Park was to be developed for an underground car park, potential access and junction arrangements would need to be reviewed.
 - Pedestrian access difficult; steep hill for pedestrians up to the Overdale Hospital site.
- 5 Noise and Vibration**
- Suburban site, already subject to traffic noise, vibration associated with the existing hospital, but on a lesser scale than around the existing general acute hospital.
 - Some increase in noise and vibration emissions with the proposed development.
- 6 Water Resources**
- Water: Water Infrastructure redundancy limited for high-pressure supplies. Lower pressure supplies are available in large quantity although new pipework needed to bring this to the site.
 - The drainage capacity is considered satisfactory for the envisaged development.
- 7 Air Quality and Pollution**
- The site is located in a suburban area to the west of St. Helier with good air quality.
 - The quality of the air is likely to be affected by the increased traffic demands.

Site 02B: Westmount Health Quarter

8 Ground Conditions and Contamination

- As the main part of the site will be extensively developed with hard building and hard landscape features, careful consideration of surface water containment will be required to prevent localised flooding issues.

9 Waste Management

- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- All of the existing buildings will have to be demolished to clear the site for the new hospital development. Consider potential re-cycling of demolition materials.
- Contractor to minimise and recycle waste during demolition and construction.

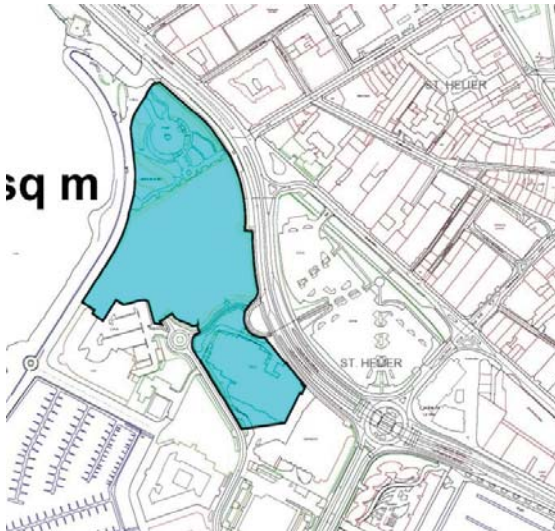
10 Archaeology and Historical Buildings

- There does not appear to be any significant areas of archaeological or historical interest on this site but a desk-based assessment should be carried out as part of a full EIA for this site.

Site 14B: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer

2.10.1.3 Site 14B: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer

Proposed site area



1. Planning and Land Use

- Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan.
- Part of the site is currently occupied by Cineworld and part by the open landscaped gardens of Les Jardins de la Mer. The Cineworld facility would have to be re-provided elsewhere and the current buildings demolished to clear the site for alternative use.
- The site has been identified by Jersey Development Company as key development opportunities for enhanced financial services and housing. A detailed planning application for a financial district development is scheduled to be submitted in August 2012.
- Adjacent beach and Les Jardins de la Mer heavily used in the summer. Area used for annual 'Battle of Britain' celebrations - noisy aircraft.
- Anti-social behaviour at night-time from nearby social areas around Liberation Square.

Site 14B: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer

2. Biodiversity and Nature Conservation

- The Waterfront part of the site is a flat, undeveloped site on reclaimed land.
- There will be nesting birds and roosting bats in the vicinity of all this site, particularly in Les Jardins de la Mer. Subsequent site surveys will be required to establish the extent and species.
- There will be an initial loss of habitat on the site but this may be mitigated by new landscape proposals associated with the new development.

3. Landscape and Visual

- Good, open outlook to the south and west over the coast.
- A new hospital development with a floor area of approximately 60,000m² spread over four or five floors will have a significant impact on the character of the surrounding townscape.
- A new hospital development on this site will severely restrict the existing outlook from the premises along the old Esplanade.

4. Traffic, Transport and Access

- This site is excellent from a Transport point of view being on the main East-West transport corridor for vehicular traffic, at the centre of the existing and developing cycle routes and being virtually on all island bus services by way of being very close to the Transportation Centre (approximately 200m) and on the route of many bus services serving the west of the Island. Public transport access into the site should be considered.
- The junction of the Esplanade and Gloucester Street is a high capacity junction which would not accommodate another leg accessing a hospital site.
- At centre of St. Helier. All roads radiate out of St. Helier from this area. Dual-carriageway gyratory underpass separates the two sites. The roads can get grid-locked.
- Bus services excellent - all services throughout the island terminate at adjacent Liberation Station. Potential for more people switching from cars to public transport
- Pedestrian connectivity to this site is close to existing desire lines and established crossings and routes.

5. Noise and Vibration

- The increased traffic, including emergency blue-light vehicles, generated by the new hospital location will generate additional noise and vibration to the adjacent areas, particularly to the nearby housing and hotel.

6. Water Resources

- Water Infrastructure is good. May be prudent to store water on site in the event of an emergency. To provide additional security of supply) a new connection to the water main running along the Esplanade may entail a large road crossing.
- The drainage capacity is considered satisfactory for the envisaged development

Site 14B: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer

7. Air Quality and Pollution

- The site is adjacent to the coast and exposed to southerly and westerly gales.
- Existing air quality affected by La Rue de la Liberation, the dual carriageway which separates the two sites.

8. Ground Conditions and Contamination

- This site is on reclaimed ground very close to the shore.
- It is thought that the reclaimed ground may have been made up from mixed contaminated material. Site investigations to be carried out to verify the nature of the ground material.
- The water table will be high and extensive tanking will be required to any basement construction.
- Areas around are prone to flooding; perhaps more from back-up of drains than sea breaching the esplanade walls.

9. Waste Management

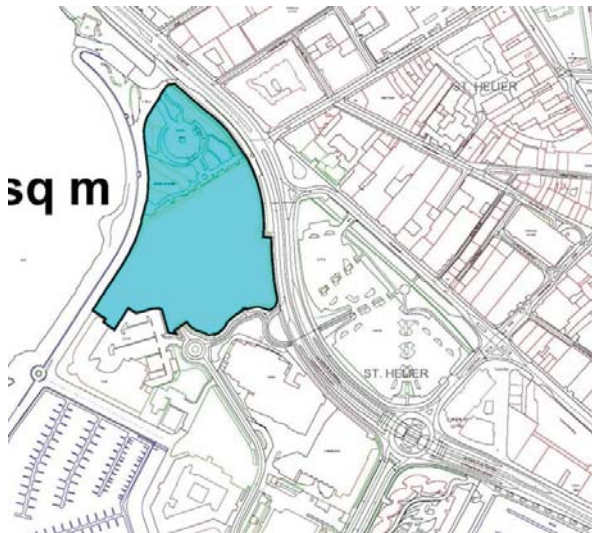
- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- Consider potential re-cycling of demolition materials.
- Contractor to minimise waste during construction.

10. Archaeology and Historical Buildings

- The original esplanade sea wall forms the northern boundary of the car park site.
- As this site is on reclaimed ground, there are no other apparent issues relating to historic buildings or archaeological interest on these sites.

Site 14C: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer

2.10.1.4 Site 14C: Zephyrus / Crosslands / Les Jardins de la Mer



Proposed site area

1. Planning and Land Use

- Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan.
- Part of the site is currently occupied by open landscaped public gardens of the Les Jardins de la Mer. These gardens would have to be clear the site for alternative use.
- The site has been identified by Jersey Development Company as key development opportunities for enhanced financial services and housing. A detailed planning application for a financial district development is scheduled to be submitted in August 2012.
- Adjacent beach and Les Jardins de la Mer heavily used in the summer. Area used for annual 'Battle of Britain' celebrations - noisy aircraft.
- Anti-social behaviour at night-time from nearby social areas around Liberation Square.

2. Biodiversity and Nature Conservation

- The Waterfront part of the site is a flat, undeveloped site on reclaimed land.
- There will be nesting birds and roosting bats in the vicinity of all this site, particularly in Les Jardins de la Mer. Subsequent site surveys will be required to establish the extent and species.
- There will be an initial loss of habitat on the site but this may be mitigated by new landscape proposals associated with the new development.

Site 14C: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer

3. Landscape and Visual

- Good, open outlook to the south and west over the coast.
- A new hospital development with a floor area of approximately 60,000m² spread over four or five floors will have a significant impact on the character of the surrounding townscape.
- A new hospital development on this site will severely restrict the existing outlook from the premises along the old Esplanade.

4. Traffic, Transport and Access

- This site is excellent from a Transport point of view being on the main East-West transport corridor for vehicular traffic, at the centre of the existing and developing cycle routes and being virtually on all island bus services by way of being very close to the Transportation Centre (approximately 200m) and on the route of many bus services serving the west of the Island. Public transport access into the site should be considered.
- The junction of the Esplanade and Gloucester Street is a high capacity junction which would not accommodate another leg accessing a hospital site.
- At centre of St. Helier. All roads radiate out of St. Helier from this area. Dual-carriageway gyratory underpass separates the two sites. The roads can get grid-locked.
- Bus services excellent - all services throughout the island terminate at adjacent Liberation Station. Potential for more people switching from cars to public transport
- Pedestrian connectivity to this site is close to existing desire lines and established crossings and routes.

5. Noise and Vibration

- The increased traffic, including emergency blue-light vehicles, generated by the new hospital location will generate additional noise and vibration to the adjacent areas, particularly to the nearby housing and hotel.

6. Water Resources

- Water Infrastructure is good. May be prudent to store water on site in the event of an emergency. To provide additional security of supply) a new connection to the water main running along the Esplanade may entail a large road crossing.
- The drainage capacity is considered satisfactory for the envisaged development

7. Air Quality and Pollution

- The site is adjacent to the coast and exposed to southerly and westerly gales.
- Existing air quality affected by La Rue de la Liberation, the dual carriageway which separates the two sites.

Site 14C: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer

8. Ground Conditions and Contamination

- This site is on reclaimed ground very close to the shore.
- It is thought that the reclaimed ground may have been made up from mixed contaminated material. Site investigations to be carried out to verify the nature of the ground material.
- The water table will be high and extensive tanking will be required to any basement construction.
- Areas around are prone to flooding; perhaps more from back-up of drains than sea breaching the esplanade walls.

9. Waste Management

- The hospital will generate a variety of clinical and non-clinical waste and it is anticipated that the new facility will have refuse collection once a day, similar to the existing hospital.
- Consider potential re-cycling of demolition materials.
- Contractor to minimise waste during construction.

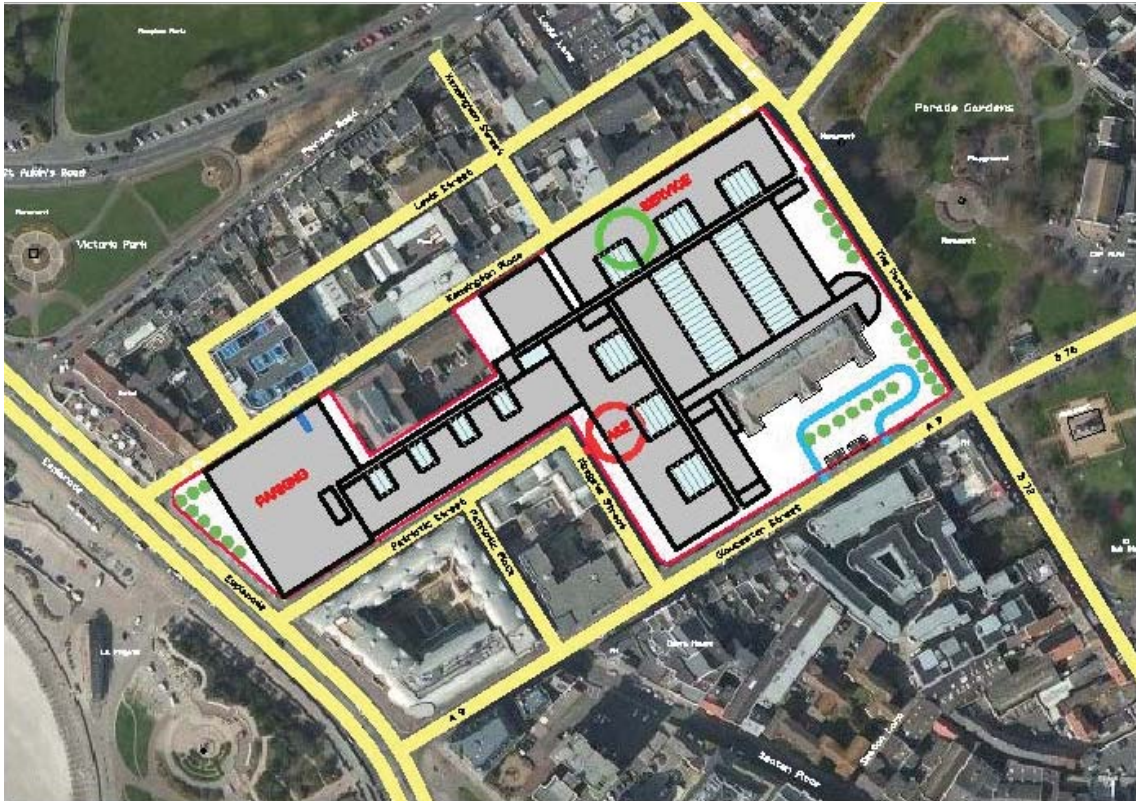
10. Archaeology and Historical Buildings

- The original esplanade sea wall forms the northern boundary of the car park site.
- As this site is on reclaimed ground, there are no other apparent issues relating to historic buildings or archaeological interest on these sites.

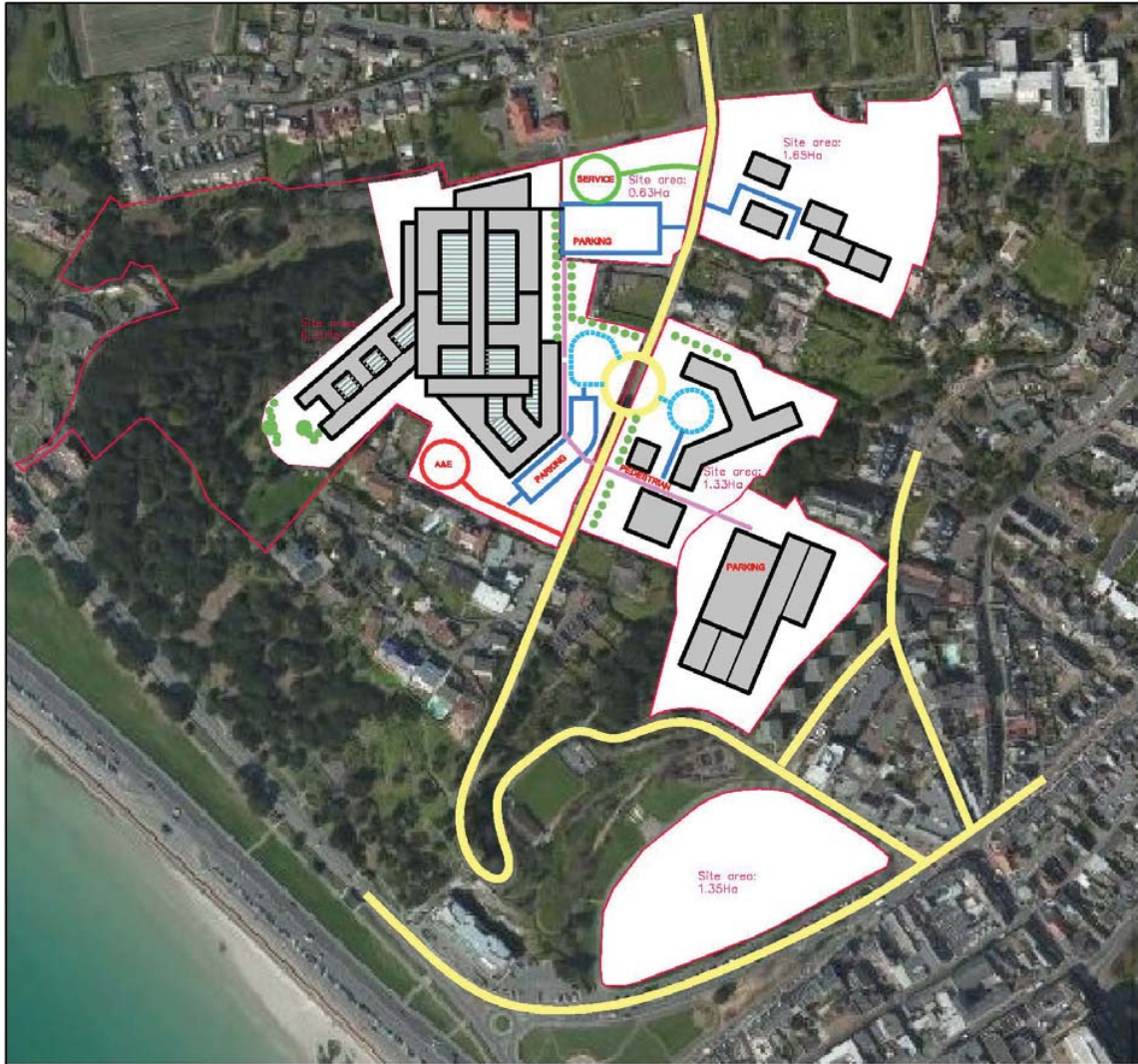
2.10.2 Additional revised long-list site development plans

2.10.2.1 Extended General Hospital site (Site 1B proposal):

Site 1B

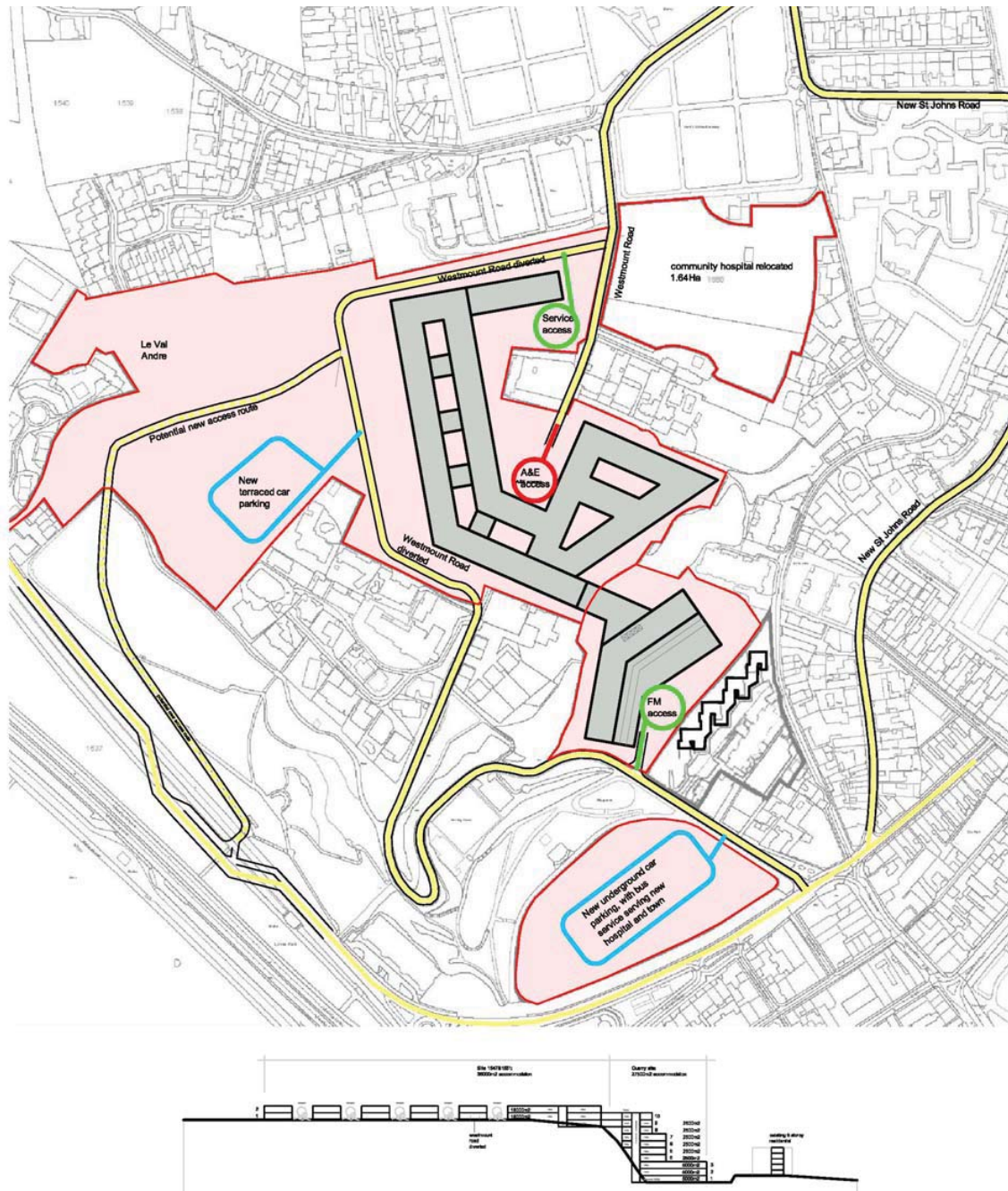


Site 2B



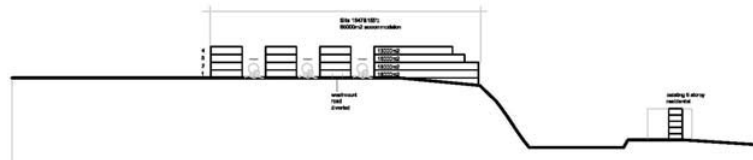
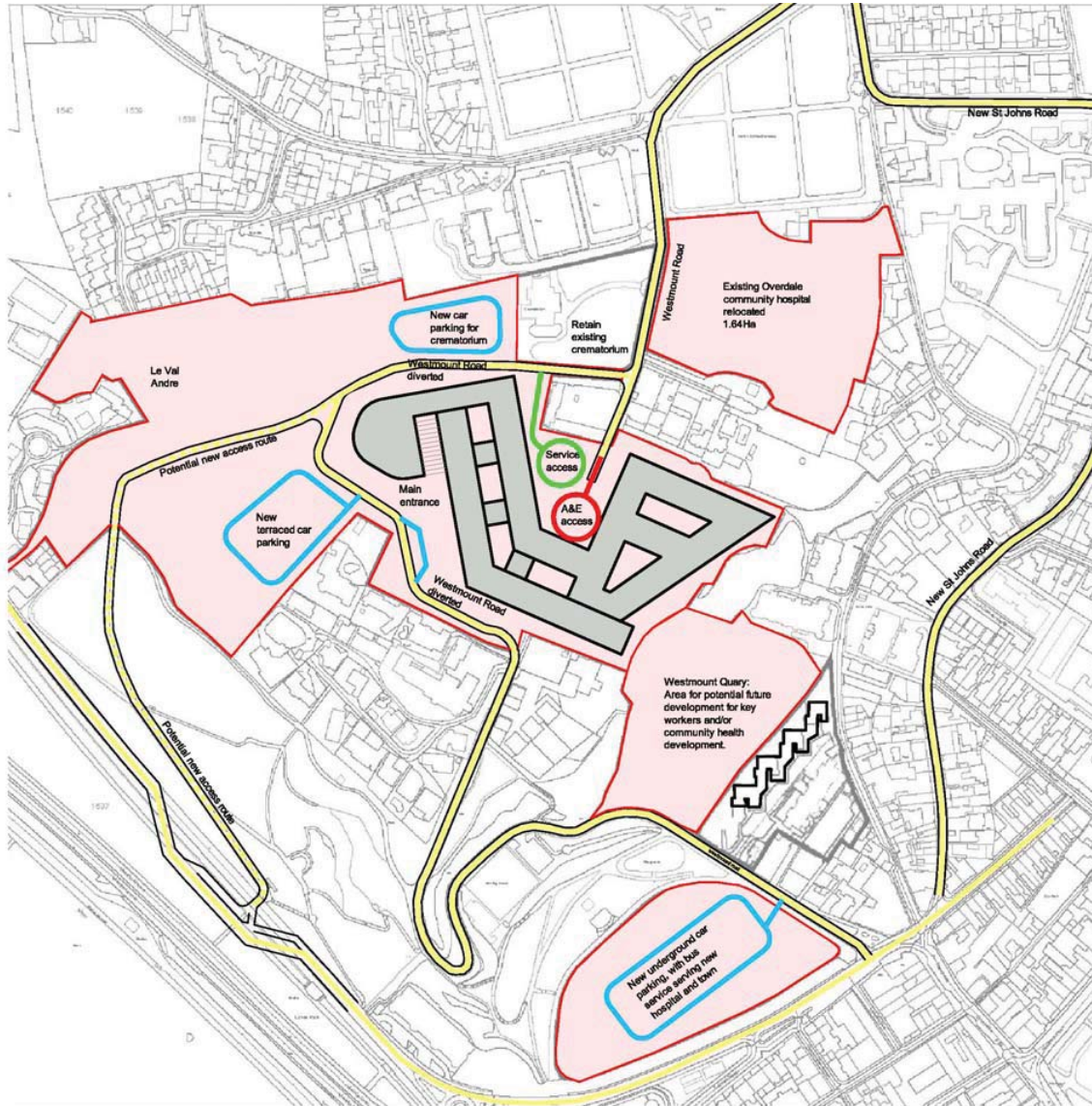
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Site Option 2B-2



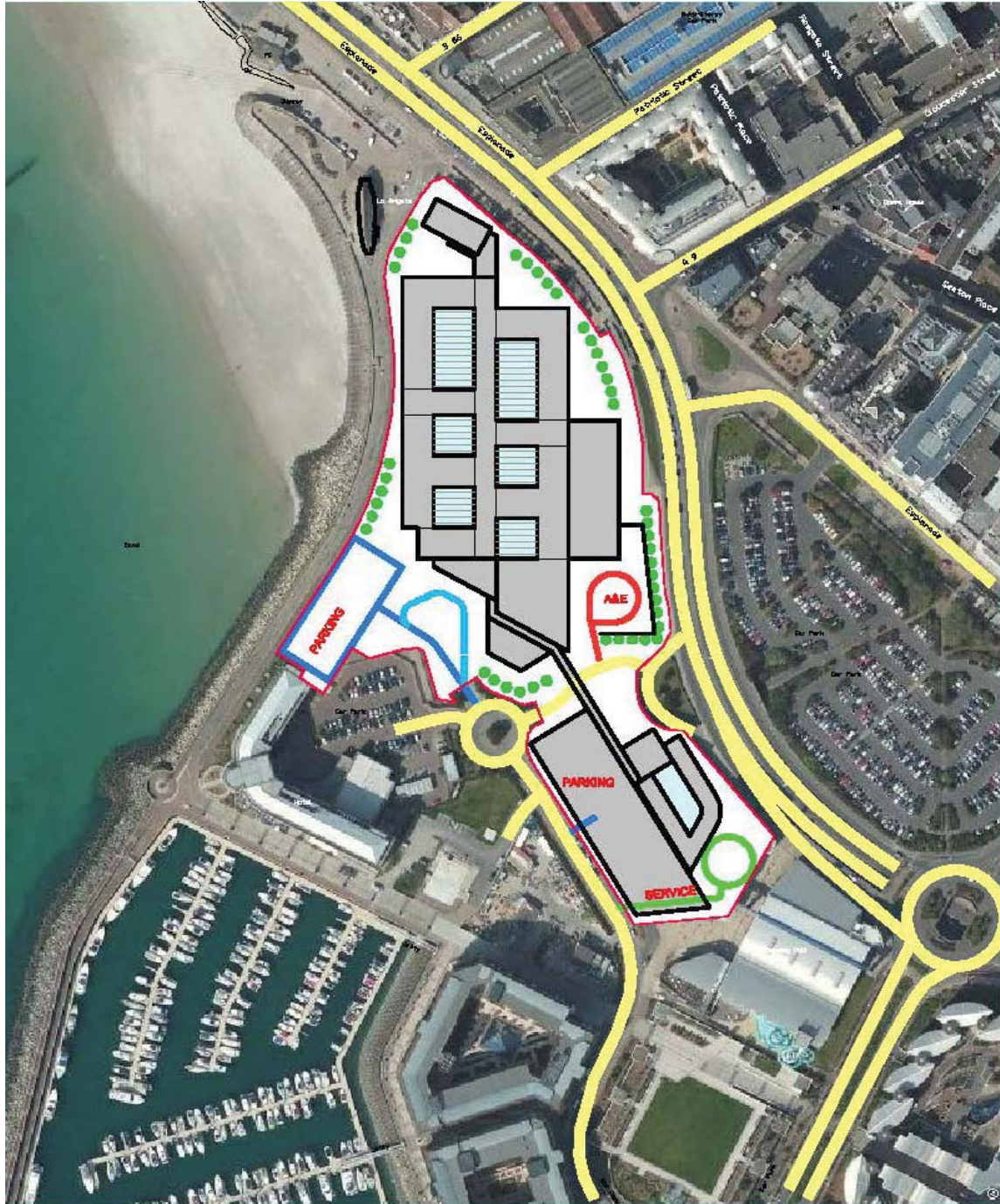
2.10.2.4 Westmount Health Quarter: Site Option 2B-4

Site Option 2B-4



2.10.2.5 Variant Waterfront sites (Site Option 14B)

Site 14B: Zephyrus / Crosslands / Cineworld / Les Jardins de la Mer



2.11 Revised long-list analysis

2.11.1 Benefits and Risk evaluation

States of Jersey Hospital Pre-Feasibility Spatial Assessment Project: Site Option Appraisal: Long-listed Site Evaluation with additional Variant Sites

Summary of Site and Assessment Information : Non-Weighted Site Benefits and Risk Assessments

20th February 2013

States of Jersey Hospital Pre Feasibility Site Assessment Project
Key combined Benefits and Risk criteria selected for Non Financial appraisal and shortlisting - NON-WEIGHTED

275

Date: 14th October 2013

Non-Weighted Benefits Ranking: 20th February 2013

States of Jersey Hospital Pre Feasibility Site Assessment Project

Key Benefits criteria selected for Non Financial appraisal and shortlisting - NON-WEIGHTED

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Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case

Date: 14th October 2013

2.11.2 Westmount Health Quarter risk register

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 02B - WESTMOUNT HEALTH QUARTER

20 FEBRUARY 2013

Risk Id	Description of Risk	IMPACT Rating (B)	UNCOED Rating (A)	Risk Score	Notes	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	3	15.0	Site is within the Green Backdrop Zone - Valley is a Protected Open Space - Visual prominence of site and landscape prominence of a large building would be a key planning issue	
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	4	12.0	The existing site has substantial mature landscape with significant tree planting, particularly around Le Val Andre at the lower, western end of the site.	
1.3	Public opinion and local media against selected site	4	3	12.0		
	OVERALL PLANNING RISK			13.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	2	6.0		
2.2	Site does not help to achieve reduction in car usage	3	4	12.0		
	OVERALL TRANSPORT RISK			9.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	3	12.0	100% sub-station near limit of its capacity	
3.2	Water supply: increased cost of providing robust water supplies	4	2	8.0	Water infrastructure redundancy limited for high-pressure supplies. Lower pressure supplies are available in large quantity although new pipework needed to bring this to the site.	
3.3	Drainage capacity: increased cost of providing robust foul and surface water drainage systems	4	3	12.0		
	OVERALL INFRASTRUCTURE RISK			10.7		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and poor relationships	3	1	3.0		
4.2	Risk of disruption to existing health services	4	4	16.0		
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			9.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	2	6.0		
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	3	9.0		
	OVERALL STAFF AND PATIENT RISK			7.5		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0		
6.2	Proposed construction overburden Jersey construction economy	2	4	8.0		
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Additional cost or opportunity cost inherent with development of this site	5	5	25.0	Purchase of alternative site for community services	
	OVERALL DEVELOPMENT OPPORTUNITY RISK			25.0		
	OVERALL SITE RISK			11.5		

Hospital Pre Feasibility Spatial Assessment Project
Strategic Outline Case:
Appendix 2: Economic Case

Date: 14th October 2013

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER:
SITE 02B-2 - WESTMOUNT HEALTH QUARTER - DEVELOPMENT OPTION 2

20 FEBRUARY 2013

Risk id	Description of Risk	IMPACT Rating (A)	LIKELIHOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	3	15.0	Failure to obtain planning permission for a building of this scale in this area will prevent an acute hospital being developed on this site.	Site is within the Green Backdrop Zone. Le Val Andre is a Protected Open Space. Visual prominence of site and landscape will be a consideration for the planning authorities.
1.2	Further provision / costs required to satisfy SDA/ EIA requirements	3	4	12.0	There may be a requirement to incorporate additional measures to mitigate environmental issues raised in the SDA/ EIA studies.	The existing site has substantial mature landscaping with significant tree planting, particularly around Le Val Andre at the lower, western end of the site.
1.3	Public opinion and local media against selected site	4	3	12.0	If public and media opinion is not in favour of this site, then this could lead to more onerous planning controls being placed on this site which may adversely affect the likelihood of obtaining planning permission and may increase cost.	
	OVERALL PLANNING RISK			13.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	2	6.0	There may be a requirement to improve traffic access to the general area of the hospital involving improvements to existing road junctions and TIA file.	The proposed layout, including the existing Westmount Road, around the new hospital buildings and constructing a new access road through Le Val Andre in conjunction with the proposed parking spaces, will ensure that the site is accessible to all users. The site is further away from the central bus station and, therefore, will increase travel time and impose the necessity to change buses for many of those who travel by public transport. Consequently, there may be an increase in private car usage for convenience.
2.2	Site does not help to achieve reduction in car usage	3	3	9.0	A greater demand for car parking may result from an increased car usage.	
	OVERALL TRANSPORT RISK			7.5		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	3	12.0	Potential increase in services' infrastructure costs.	1980s sub-station near limit of its capacity
3.2	Water supply: Increased cost of providing robust water supplies	4	2	8.0	Potential increase in services' infrastructure costs.	Water infrastructure redundancy limited for high-pressure supplies. Lower pressure supplies are available in large quantity through low pressure network destined to bring hot to the site.
3.3	Drainage capacity: increased cost of providing robust foul and surface water drainage systems	4	3	12.0	Potential increase in services' infrastructure costs.	
	OVERALL INFRASTRUCTURE RISK			10.7		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	4	12.0	The potential impact is that preferred operational relationships will not be achieved resulting in less efficient and more costly working practices and subsequent impact on patient health.	The hospital is built in two parts: an 'upper' two story building located on Field 1021 and the Overdale Hospital site housing the quarry building, housing the wards, admin and FM support facilities. The restricted floor area of the 'quarry' floors will restrict the flexibility of the wards and limit and extend the length of the required connections to the diagnostic and treatment areas.
4.2	Risk of disruption to existing health services	4	4	16.0	Any disruption could affect the operating efficiency of clinical facilities and impose health and safety issues which affect the safety and well-being of patients, staff and visitors.	The existing quarry hospital will remain in operation unaffected by this development. However, the existing Overdale Hospital houses a variety of community health facilities which will have to be relocated elsewhere on the island, the building demolished and the site cleared prior to the construction work starting on the new acute hospital. Currently the Overdale Hospital is being considered as the centre for the new island-wide, co-ordinated community health service.
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			14.0		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	2	6.0	The impact of this could affect staff retention and recruitment and the convenience of visitors.	Increased bus services will be required to provide adequate public transport alternatives to private car usage. The site is further away from the central bus station and, therefore, will increase travel time and impose the necessity to change buses for many of those who travel by public transport.
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	3	9.0	The impact of this could affect staff retention and recruitment.	
	OVERALL STAFF AND PATIENT RISK			7.5		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	Construction issues can affect the health and welfare of patients.	The existing acute hospital will remain in operation unaffected by this development.
6.2	Proposed construction overheads, Jersey construction economy	2	4	8.0	Such a large construction project could use all available construction workforce and resources on the island, to the detriment of other construction projects.	This is a large single phase project which will attract international contractors, but who may 'partner' with local construction organisations and supply chains.
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Additional cost or opportunity cost inherent with development of this site	5	5	25.0	Potential loss of expanded community health development opportunities increases development costs.	The existing Overdale Hospital community health facilities and the Crematorium will have to be relocated elsewhere to clear the site for the construction of the new acute hospital. This will both increase cost and limit land for site development.
	OVERALL DEVELOPMENT OPPORTUNITY RISK			25.0		
	OVERALL SITE RISK			12.0		

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case

Date: 14th October 2013

STATES OF JERSEY: PRE-FEASIBILITY SITE ASSESSMENT: RISK REGISTER: SITE 02B-4 - WESTMOUNT HEALTH QUARTER - DEVELOPMENT OPTION 4

20 FEBRUARY 2013

Risk Id	Description of Risk	IMPACT Rating (A)	LIKHOOD Rating (B)	Risk Score	Issues	Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary planning consents	5	3	15.0	Failure to obtain planning permission for a building of this scale in this area will prevent an acute hospital being developed on this site.	Site is within the Green Backdrop Zone. La Vie Acadie is a Protected Open Space. Visual prominence of site and landscape will be a consideration.
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	4	12.0	There may be a requirement to incorporate additional measures to mitigate environmental issues raised in the SEA / EIA studies.	The existing site has substantial mature landscaping with significant tree planting, particularly around La Vie Acadie at the lower, western end of the site.
1.3	Public opinion and local media against selected site	4	3	12.0	If public and media opinion is not in favour of this site, then this could lead to more onerous planning controls being placed on this site which may adversely affect the likelihood of obtaining planning permission and may increase cost.	
	OVERALL PLANNING RISK			13.0		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	3	2	6.0	There may be a requirement to improve traffic access to the general area of the hospital involving improvements to existing road network and the site.	The proposals include clearing the existing Westmount Road around the new hospital buildings and constructing a new access road above La Vie Acadie to improve access for emergency traffic coming from the west of the island.
2.2	Site does not help to achieve reduction in car usage	3	4	12.0	A greater demand for car parking may result from an increased car usage.	Increased bus services will be required to provide adequate public transport alternatives to private car usage. The site is further away from the central bus station and, therefore, will increase travel time and impose the necessity to change buses for many of those who travel by public transport. Consequently, there may be an increase in private car usage for convenience.
	OVERALL TRANSPORT RISK			9.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	3	12.0	Potential increase in services' infrastructure costs.	1500's sub-station near limit of its capacity.
3.2	Water supply: increased cost of providing robust water supplies	4	2	8.0	Potential increase in services' infrastructure costs.	Water infrastructure redundancy limited for high-pressure supplies. Lower pressure supplies are available in large quantity although new pipelines needed to bring this to the site.
3.3	Wastewater capacity: increased cost of providing robust foul and surface water drainage systems	4	3	12.0	Potential increase in services' infrastructure costs.	
	OVERALL INFRASTRUCTURE RISK			10.7		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	1	3.0	The potential impact is that preferred operational relationships will not be achieved resulting in less efficient and more costly working practices and subsequent impact on patient health.	The hospital is built only on the Field 1551 and the Overdale Hospital site of the 'upper' part of the potential development area. The quarry is only considered for potential additional car parking and/or key worker housing. The four-storey building has a ground floor footprint of approximately 19,000sq.m, which should allow the required departmental relationships to be achieved.
4.2	Risk of disruption to existing health services	4	4	16.0	Any disruption could affect the operating efficiency of clinical facilities and impose health and safety issues which affect the safety and well-being of patients, staff and visitors.	The existing acute hospital will remain in operation unaffected by this development. However, the existing Overdale Hospital and the site cleared prior to the construction work starting on the new acute hospital. Currently the Overdale Hospital is being considered as the centre for the new island-wide, co-ordinated community health service.
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			9.5		
6	STAFF AND PATIENT ISSUES					
6.1	Location of new hospital is not readily accessible to majority of island's population	3	2	6.0	The impact of this could affect staff retention and recruitment and the convenience of visitors.	Increased bus services will be required to provide adequate public transport alternatives to private car usage. The site is further away from the central bus station and, therefore, will increase travel time and impose the necessity to change buses for many of those who travel by public transport.
6.2	Viscosity, commitment and morale of staff is compromised due to the location of the new hospital	3	3	9.0	The impact of this could affect staff retention and recruitment.	
	OVERALL STAFF AND PATIENT RISK			7.5		
8	CONSTRUCTION					
8.1	Construction issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	Construction issues can affect the health and welfare of patients.	The existing acute hospital will remain in operation unaffected by this development.
8.2	Proposed construction overwhelms Jersey construction economy	2	4	8.0	Such a large construction project could use all available construction workforce and resources on the island, to the detriment of other construction projects.	This is a large single phase project which will attract international contractors, but who may 'partner' with local construction organisations and supply chains.
	OVERALL CONSTRUCTION RISK			6.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Additional cost or opportunity cost inherent with development of this site	5	5	25.0	Potential loss of expanded community health development opportunities increases development costs.	The existing Overdale Hospital community health facilities will have to be relocated elsewhere to clear the site for the construction of the new acute hospital. This will both increase costs and limit scales for this development.
	OVERALL DEVELOPMENT OPPORTUNITY RISK			25.0		
	OVERALL SITE RISK			11.5		

2.12 Establishment and analysis of revised short-listed

2.12.1 Development constraints and proposals

270. Following the further site search and the subsequent evaluation of the viable sites identified, no further sites were found to out-perform the original short-list of the existing General Hospital site, the Zephyrus Waterfront site and Warwick Farm.
271. Although Warwick Farm offered the opportunity of a new-build development option on a green-field site, in considering the short-listed options the Ministers did not consider this site to be suitable because it would require re-designation of this green zone land site and, in addition, the visual and development impact of such a large building in this rural setting would have been out of keeping with the surroundings coupled with considerable transport impacts which were not considered sustainable. Consequently, Warwick Farm was not taken forward further as a short-listed option.
272. To satisfy themselves that the site selection process was fully robust, Ministers required a subsequent review of different configurations of the two remaining short-listed site options; the current General Hospital site and the Waterfront site.
273. With regards the existing general hospital site, concern had been expressed by Ministers regarding the potential height of up to 9 storeys indicated in the initial development proposals, particularly along Kensington Place. Consequently, planning massing guidance was released which introduced a limited building height of five medical floors along Kensington Place, five to six floors on Newgate Street and Gloucester Street and seven floors in the centre of the new hospital building and along The Parade.
274. In response to this, the potential site development area was adjusted to include consideration of acquiring further adjacent properties along Kensington Place which might help to reduce the overall height of the proposed development, and consideration was given to utilising the space occupied by the original, 19th century listed Granite Building hospital, thus assisting in meeting the planning guidance referred to above.
275. During the process of developing the most appropriate site development strategy for the existing extended General Hospital site that took advantage of, and best met, the above criteria, Atkins tested alternative design solutions, site options 1C and 1D, before developing site option 1E which was taken forward for further assessment and evaluation.
276. Site option 1C, (refer to 2.12.2 below), extended the in-patient wards along Kensington Place whilst retaining the original Granite Building. However, this solution resulted in less efficient ward layouts with extended patient routes to other related clinical departments but also presented a six-storey, solid facade to Kensington Place. To overcome these clinical and planning issues, site option 1D, (refer to 2.12.3 below) was developed, which reduced the length and height of the ward extension along Kensington Place by developing more intensively the central area of the hospital. However operational issues still remained regarding efficient clinical links between the extended ward accommodation

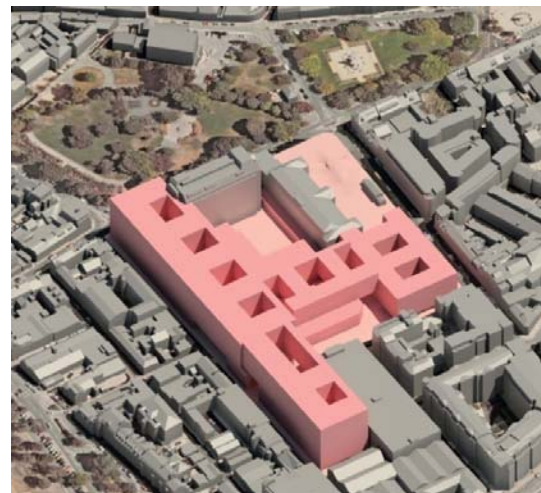
and other related departments. Consequently, site option 1E, (refer to 2.12.4 below), which reduced further the length of the development along Kensington Place was developed for assessment and revised short-list evaluation.

277. The final short-listed proposal for the Waterfront site, site option 14C developed through a rationalisation of the sites available (for site options 14A and 14B, refer to sections 2.6.2.3 and 2.10.1.3 above respectively) and with considerations of planning guidance restricting the general height of developments in the waterfront area to a maximum height of 25m. Site option 14C, (refer to 2.12.5 below), utilises the combined Zephyrus / Crossland / Les Jardins de la Mer sites and a stepped building massing from 2 storeys, through four storey sections to a central core of five storeys, thus addressing the planning height constraint.



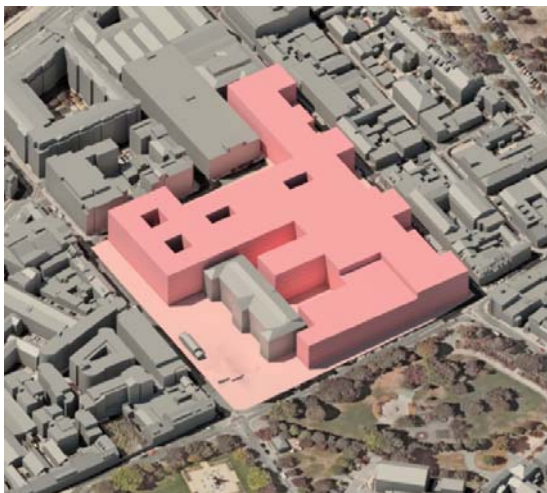
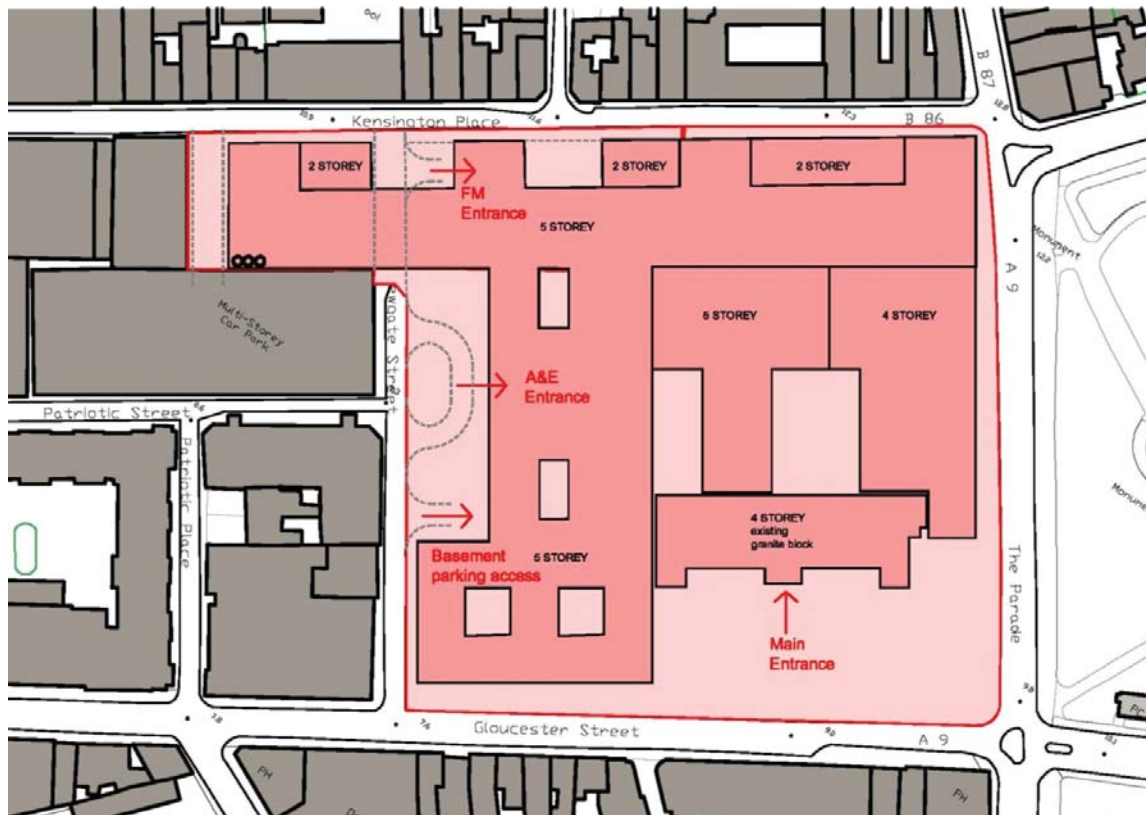
2.12.2 Extended general hospital site (Site 1C proposal):

Site 1C



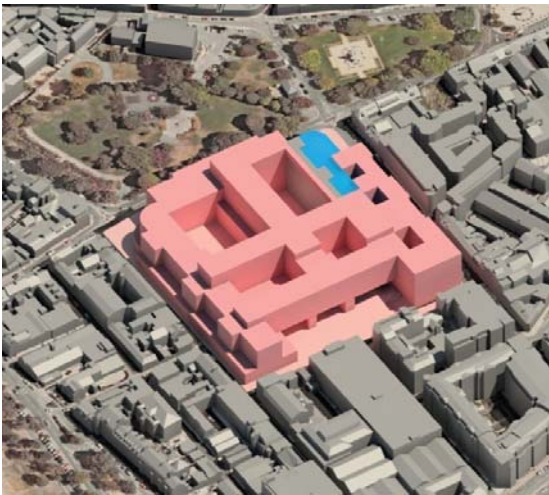
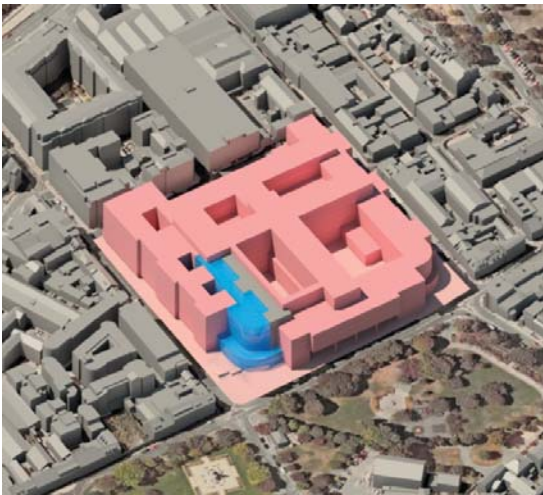
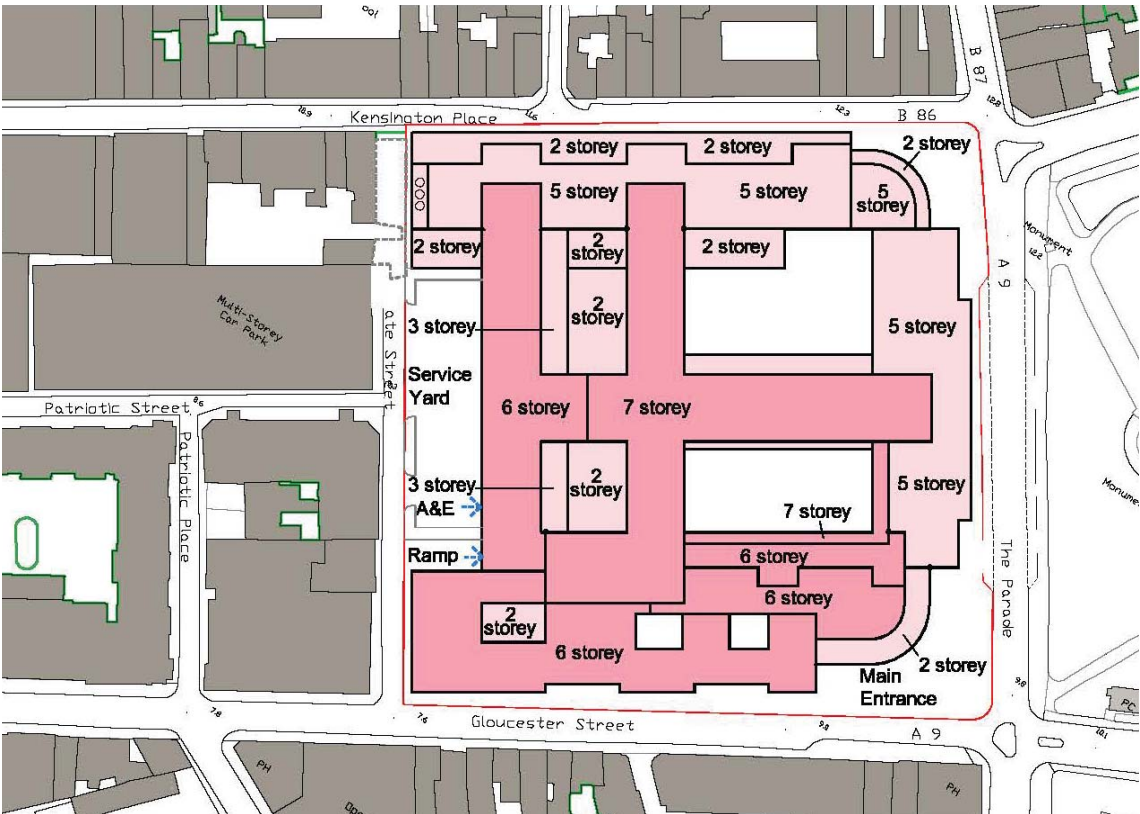
2.12.3 Extended General Hospital site (Site 1D proposal):

Site 1D



2.12.4 Extended general hospital site (Site 1E proposal)

Site 1E



2.12.5 Waterfront site options (Site 14C proposal)

Site 14C



2.13 Evaluation and scoring of revised short-listed sites

2.13.1 Benefits and Risk evaluation

States of Jersey Hospital Pre-Feasibility Spatial Assessment Project:

States of Jersey Hospital Pre-Feasibility Spatial Assessment Project:

Site Option Appraisal: Long-listed Site Evaluation with additional Variant Sites

Summary of Site and Assessment Information :

Non-Weighted Site Benefits and Risk Assessments

20th February 2013

States of Jersey

Hospital Pre-Feasibility Spatial Assessment Project

Short-listed Sites: Combined Non-Weighted Benefits and Non-Weighted Risk Ranking: 8th February 2013

Key Benefits criteria selected for shortlisting and Non Financial appraisal

Section	Set	Subset	Sub Weighting	Site 01E: Extended General Hospital Site		Site 14C: Zephyrus / Crossland Les Jardins de la Mer	
				Yes	No	Yes	No
The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.			Yes/No	Yes	Yes	No	

States of Jersey

Hospital Pre-Feasibility Spatial Assessment Project

Short-listed Sites:

Non-Weighted Benefits Ranking: 8th February 2013

Key Benefits criteria selected for shortlisting and Non Financial appraisal - NON-WEIGHTED

Section	Set	Subset	Treatment	Sub Weighting	Scorings	
					Site 01E: Existing General Hospital Site	Site 14C: Zephyrus / Crossland / Les Jardins de la Mer
				RANK	2	1
				Non-Weighted Score	164	176
				Convert to %	93.2%	100.0%
1.0	Massing and Planning Issues			Section 1.0 Ranking	1	2
1.1	The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.			Yes/No	Yes	Yes
1.2	The potential site must fit within and not be out of accord with the Island Planning and Spatial Strategy and HSS strategy?				10	4
1.3	The site should not have any planning restrictions associated with it that pose an unacceptable risk to development at this stage				7	1
1.4	Site required for the total hospital development should be immediately available without major infrastructure and other issues				4	4
				Section 1.0 Sub-Total	21	9
2.0	Transport and Access Issues			Section 2.0 Ranking	1	1
2.1	The site should afford ease of access to the majority of the island's population				10	10
2.2	The site should allow efficient and effective access by private and commercial transport				10	10
2.3	The site should allow efficient and effective access by public transport				10	10
2.4	The site should allow adequate parking facilities available for staff, patients and visitors				7	7
2.5	The site should allow efficient and effective access by emergency vehicles				7	7
2.6	The site should allow efficient and effective access for separating traffic flows				7	7
				Section 2.0 Sub-Total	51	55
3.0	Response to the Island's Infrastructure and Geography			Section 3.0 Ranking	1	2
3.1	The site should present minimal risks to its safe and on-going running in terms of the weather and environment				10	7
3.2	The site should be capable of supporting key infrastructure for the hospital				10	10
				Section 3.0 Sub-Total	20	17
4.0	Clinical and Non Clinical support Functionality			Section 4.0 Ranking	1	1
4.1	The site should be capable of accommodating or being supported by the full range of clinical and non clinical support functions				7	7
				Section 4.0 Sub-Total	7	7
5.0	Clinical Care and Patient related Issues			Section 5.0 Ranking	2	1
5.1	The site should allow for the optimisation of clinical adjacencies and functionality				7	10
5.2	The site should allow for the future hospital to be flexible in its future design and construction and allow for future proofing of all acute and non acute services as part of a clear, sustainable, forward masterplanning strategy				4	4
5.3	The hospital should be capable of accommodating key functional content, based on, but not wedded to current UK room scheduling guidance and current best practice				10	10
5.4	Quality of patient environment - views and social spaces				7	10
5.5	Convenience of access for friends, family and visitors and access to town/shopping facilities				10	7
				Section 5.0 Sub-Total	38	41
6.0	Patient, Staffing and Support Issues			Section 6.0 Ranking	2	1
6.1	The effect of the site on staff recruitment and retention and patient disruption at the time of transition				4	10
6.2	The ongoing effect of the site on staff recruitment and retention				10	10
6.3	Staff, patient and visitor security relating to location and out-of-hours safety				7	7
				Section 6.0 Sub-Total	21	27
7.0	Construction and Buildability Issues			Section 7.0 Ranking	2	1
7.1	Ease of construction logistics				1	7
7.2	Access to site for construction vehicles, deliveries and waste removal				4	7
7.3	Protection of existing hospital services and avoidance of disruption during the build process				1	10
				Section 7.0 Sub-Total	6	24
				Non-weighted Score	164	176
				RANK	2	1

States of Jersey

Hospital Pre-Feasibility Spatial Assessment Project

Short-listed Sites:

Non-Weighted Risk Ranking: 8th February 2013

Key Risk criteria selected for shortlisting and Non Financial appraisal

Section	Set	Subset	Sub Weighting	Site 01E: Extended General Hospital Site	Site 14C: Zephyrus / Crossland / Les Jardins de la Mer	
				RANK	2	1
				Non-Weighted Score	106	97
				Convert to %	100.0%	91.5%
The site must be considered capable of accommodating the potential capacity requirements for the hospital, including potential future expansion and/or change.				Yes/No	Yes	Yes
1.0	PLANNING AND ENVIRONMENT			1	2	
1.1	Failure to obtain necessary Planning consents			10	15	
1.2	Further provision / costs required to satisfy SEA / EIA requirements			3	9	
1.3	Public opinion and local media against selected site			4	8	
				17	32	
2.0	TRANSPORT			1	2	
2.1	failure to overcome transport issues raised by TIA and environmental issues			2	8	
2.2	Site does not help to achieve reduction in car usage			2	2	
				4	10	
3.0	SERVICES INFRASTRUCTURE			1	2	
3.1	Electricity: Increased cost of providing robust power supplies			4	4	
3.2	Water supply: Increased cost of providing robust water supplies			4	4	
3.3	Drainage capacity: Increased cost of providing robust foul and surface water drainage systems			4	8	
				12	16	
4.0	CLINICAL AND NON-CLINICAL SUPPORT			2	1	
4.1	Failure to meet preferred departmental and room relationships			6	3	
4.2	Risk of disruption to existing health services			20	4	
				26	7	
5.0	STAFF AND PATIENT ISSUES			2	1	
5.1	Location of new hospital is not readily accessible to majority of island's population			3	3	
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital			12	3	
				15	6	
6.0	CONSTRUCTION			2	1	
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay			16	4	
6.2	Proposed construction overheats Jersey construction economy			4	6	
				20	10	
7.0	DEVELOPMENT OPPORTUNITY			1	2	
7.1	Opportunity impact inherent with development of this site			12	16	
				12	16	
				Non-weighted Score	106	97
				RANK	2	1

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case

Date: 14th October 2013

2.13.2 Revised short-list risk register

STATES OF JERSEY: HOSPITAL PRE-FEASIBILITY SPATIAL ASSESSMENT PROJECT: RISK REGISTER: SITE 01E - EXISTING GENERAL HOSPITAL SITE 8th February 2013

Risk Id	Description of Risk	IMPACT Rating (A)	LIKHOOD Rating (B)	Risk score	Impact Issues	Likelihood Comments
1 PLANNING AND ENVIRONMENT						
1.1	Failure to obtain necessary Planning consents	5	2	10.0	Failure to obtaining listed building consent for retaining only the facade of the Granite Building and demolishing the Lodge Gatehouse will result in re-planning the whole hospital and associated phases.	1800 hospital 'Granite Building', the Lodge Gatehouse and setting are listed. Option 1E relies upon a solution which incorporates the facade of the Granite Building only.
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	1	3.0	The requirement to incorporate additional measures to mitigate environmental issues raise in the SEA / EIA studies.	This is a complex multi-phased redevelopment project which may be subject to a number of environmental issues which may be raised in a development of this nature. Consequently, the likelihood of new environmental issues impacting in a major way is reduced.
1.3	Public opinion and local media against selected site	4	1	4.0	If public and media opinion is not in favour of this site, then this could lead to more onerous planning controls being placed on this site which may adversely affect the likelihood of obtaining planning permission and may increase cost.	This is the site of the existing general hospital and, as a consequence, this development is likely to be accepted by the public as a natural progression in the redevelopment of the hospital services.
OVERALL PLANNING RISK						
				5.7		
2 TRANSPORT						
2.1	Failure to overcome transport issues raised by TIA and environmental issues	2	1	2.0	There may be a requirement to improve traffic access to the general area of the hospital involving improvements to existing road junctions and the like.	
2.2	Site does not help to achieve reduction in car usage	2	1	2.0	A greater demand for car parking may result from an increased car usage.	Only 140 car parking spaces are being provided in the new development.
OVERALL TRANSPORT RISK						
				2.0		
3 SERVICES INFRASTRUCTURE						
3.1	Electricity: increased cost of providing robust power supplies	4	1	4.0	Potential increase in services' infrastructure costs.	2 existing 11kV open ring supplies with good capacity.
3.2	Water supply: increased cost of providing robust water supplies	4	1	4.0	Potential increase in services' infrastructure costs.	2 existing 11kV open ring supplies with good capacity.
3.3	Drainage capacity: increased cost of providing robust foul and surface water drainage systems	4	1	4.0	Potential increase in services' infrastructure costs.	2 existing 11kV open ring supplies with good capacity.
OVERALL INFRASTRUCTURE RISK						
				4.0		
4 CLINICAL AND NON-CLINICAL SUPPORT						
4.1	Failure to meet preferred departmental and room relationships	3	2	6.0	The potential impact in that preferred operational relationships will not be achieved resulting in less efficient and more costly working practices and subsequent impact on patient health.	Ensuring that all departments remain operational throughout a phased replacement of the existing facilities will determine which departments are included in any particular phase which may not provide the best working departmental relationships.
4.2	Risk of disruption to existing health services	4	5	20.0	Temporary displacement of connecting departments during the multi-phased redevelopment works will affect efficient working patterns.	This is a complex multi-phased redevelopment project where existing departments will be replaced with new departments in new locations which will necessitate numerous temporary horizontal and vertical links to maintain the necessary clinical operational connections.
OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK						
				13.0		
5 STAFF AND PATIENT ISSUES						
5.1	Location of new hospital is not readily accessible to majority of island's population	3	1	3.0	The impact of this could affect staff retention and recruitment and the convenience of visitors.	This option redevelops the existing hospital in its existing location in the centre of St. Helier. This location is readily accessible to the majority of the island's population.
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital and during construction	3	4	12.0	The impact of this could affect staff retention and recruitment.	This is a complex multi-phased redevelopment project, with a construction period of approximately 7 years, which will cause considerable disruption to staff, patients and visitors alike either from operational efficiency, and/or from construction noise, vibration and dust. This will affect the morale of the staff in particular who will continue to use the facilities throughout the whole period of the construction works.
OVERALL STAFF AND PATIENT RISK						
				7.5		
6 CONSTRUCTION						
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	4	16.0	There is a high risk of construction issues affecting the health and welfare of patients.	This is a complex multi-phased redevelopment project which will cause considerable disruption to staff, patients and visitors alike either from operational efficiency, and/or from construction noise, vibration and dust which may raise considerable infection control issues.
6.2	Proposed construction overheats Jersey construction economy	2	2	4.0		
OVERALL CONSTRUCTION RISK						
				10.0		
7 DEVELOPMENT OPPORTUNITY						
7.1	Opportunity impact inherent with development of this site	4	3	12.0	Potential loss of alternative development opportunities with the continual development as a hospital of both this site and that of all purchased properties.	Purchase of adjacent properties required to enlarge the available site development area.
OVERALL DEVELOPMENT OPPORTUNITY RISK						
				12.0		
OVERALL SITE RISK						
				8.8		

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 2: Economic Case

Date: 14th October 2013

STATES OF JERSEY: HOSPITAL PRE-FEASIBILITY SPATIAL ASSESSMENT PROJECT: RISK REGISTER: SITE 14C - ZEPHYRUS / CROSSLANDS / LE JARDINS DE LA MER 8th February 2013

Risk (d)	Description of Risk	IMPACT Rating (A)	L'HOOD Rating (B)	Risk Score	Impact Issues	Likelihood Comments
1	PLANNING AND ENVIRONMENT					
1.1	Failure to obtain necessary Planning consents	5	3	15.0	Failure to obtain planning permission to change the current masterplan for this area will prevent a hospital being developed on this site.	Accords with Island Plan spatial strategy and healthcare facility policy but challenges St Helier Waterfront Masterplan. There are strong views being expressed both in support and against this proposed development on this site.
1.2	Further provision / costs required to satisfy SEA / EIA requirements	3	3	9.0	There may be a requirement to incorporate additional measures to mitigate environmental issues raised in the SEA / EIA studies.	This is currently partly a brown-field site with an adjacent public landscaped garden area. The adjacent beach is heavily used in the summer. There are likely to be a number of environmental issues which a new development high profile area, with the gardens potentially having a perceived high public amenity value.
1.3	Public opinion and local media against selected site	4	2	8.0	If public and media opinion is not in favour of this site, then this could lead to more onerous planning controls being placed on this site which may adversely affect the likelihood of obtaining planning permission and may increase cost.	
	OVERALL PLANNING RISK			10.7		
2	TRANSPORT					
2.1	Failure to overcome transport issues raised by TIA and environmental issues	4	2	8.0	There may be a requirement to improve traffic access to the general area of the hospital involving improvements to existing road junctions and the like.	Roads are busy around perimeter of site, particularly at rush-hour and when vehicle ferries dock. Impact of blue light access. Technical solutions should be achievable.
2.2	Site does not help to achieve reduction in car usage	2	1	2.0	The hospital will generate more traffic in this area resulting in increased pressure on road junctions and a higher demand for parking in the vicinity.	Only 140 car parking spaces are being provided in the new development. This is a town centre location close to main bus station at Liberation Station which should mitigate against an increased car usage.
	OVERALL TRANSPORT RISK			5.0		
3	SERVICES INFRASTRUCTURE					
3.1	Electricity: increased cost of providing robust power supplies	4	1	4.0	Potential increase in services infrastructure costs.	There is an existing 11KV supply with good capacity
3.2	Water supply: increased cost of providing robust water supplies	4	1	4.0	Potential increase in services infrastructure costs.	Water infrastructure is good. May be prudent to store water on site in the event of emergency
3.3	Drainage: increased cost of providing robust foul and surface water drainage systems	4	2	8.0	Additional costs have been included in the development costs but this is provisional until such time as a technical solution is agreed.	Only 40 car parking spaces are being provided in the new development. This is a town centre location close to main bus station at Liberation Station which should mitigate against an increased car usage.
	OVERALL INFRASTRUCTURE RISK			5.3		
4	CLINICAL AND NON-CLINICAL SUPPORT					
4.1	Failure to meet preferred departmental and room relationships	3	1	3.0	The potential impact is that preferred operational relationships will not be achieved resulting in less efficient and more costly working practices and subsequent impact on patient health.	This is an undeveloped site with fewer constraints affecting potential site and departmental relationships and, therefore, efficient departmental layouts should be achievable.
4.2	Risk of disruption to existing health services	4	1	4.0	There are no health services on this site	No risk.
	OVERALL CLINICAL AND NON-CLINICAL SUPPORT RISK			3.5		
5	STAFF AND PATIENT ISSUES					
5.1	Location of new hospital is not readily accessible to majority of island's population	3	1	3.0	The impact of this could affect staff retention and recruitment and the convenience of visitors.	Still close to the majority of the island's population
5.2	Flexibility, commitment and morale of staff is compromised due to the location of the new hospital	3	1	3.0	The impact of this could affect staff retention and recruitment.	As this is also a town centre site close to the existing hospital and close to public transport, retail and commercial facilities, the selection of this site should have little impact on staff morale.
	OVERALL STAFF AND PATIENT RISK			3.0		
6	CONSTRUCTION					
6.1	Risk of infection control issues affecting patients resulting in increased clinical support and extended lengths of stay	4	1	4.0	There are no health services on this site	No risk.
6.2	Proposed construction overruns Jersey construction economy	2	3	6.0	This will stretch the limited market capacity on the island able to undertake a project of this scale.	This is proposed as a single phased contract being completed in a shorter timescale than the multi-phased site (i.e. open and potentially may have a greater short-term impact on the Jersey economy).
	OVERALL CONSTRUCTION RISK			5.0		
7	DEVELOPMENT OPPORTUNITY					
7.1	Opportunity impact inherent with development of this site	4	4	16.0	There are significant alternative potential opportunities for this site which have financial implications for the economy and benefit of Jersey. Development of this site for healthcare will impact upon the proposed financial services' masterplan.	There are strong views being expressed both in support and against this proposed development on this site.
	OVERALL DEVELOPMENT OPPORTUNITY RISK			16.0		
	OVERALL SITE RISK			6.9		

2.14 Capital cost estimates of revised short-listed sites

278. The Cost Estimates have been omitted due to commercial confidentiality.

Appendix 3: Commercial Case

Appendix 3. Commercial Case

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3.1 Potential procurement approach

279. This section of the Strategic Outline Case outlines the proposed deal in relation to the preferred option outlined in the economic case.
280. The purpose of the Commercial Case is to set out the planned approach the States of Jersey will be taking to ensure there is a competitive market for the supply of services. This in turn will determine the basis of a commercially beneficial deal and achieve the best value for money for the development. The commercial section of this business case will be more fully developed at OBC stage and then finalised at FBC stage.
281. Following agreement of this pre-feasibility stage, detailed work will be undertaken to determine and assess the most likely procurement route to be followed for this scheme. Options available to the States at this time include:
- A traditional centrally funded approach using publically funded capital, sourced by the States. Such a procurement methodology will result in the raising of finance (potentially through a bond) by the States, the period of that bond to be determined. The resulting asset capitalised as part of the States asset portfolio.
 - A potential partnering approach to the development process. Ranges of partnering methodologies exist and are in use within the UK. Such methodologies may include the raising of capital by a third party and the States paying the third party for the cost of that capital as well as other goods and services delivered by the third party, through to differing methodologies for the sharing of capital funding and ownership and delivery of services associated with the hospital. Particular methodologies exist for the commercial route taken regards the transfer of the risks and rewards of ownership of services associated with the continuing operation of the new hospital. Some of these methodologies are relatively new and involve a closer partnering approach between clients and pre selected supply partners to deliver developments on behalf of the client.
282. There are a number of approaches available to be considered which allow the States flexibility and control over the funding, design, build and maintenance of the redevelopment. The States will determine the commercial approach it considers most appropriate to its requirements. Previously, there has been a preference to maintain control over such developments as capital is secured and control is maintained, contingent with the parameters that a small island development sets for such a project; however at this stage no other procurement routes have been dismissed.
283. Detailed clinical design work should commence as soon as the Strategic Outline Case is approved if the States is to achieve the timescale set out in the Management Case.

3.2 Proposed charging mechanism

284. It is anticipated that The States of Jersey would make payments in relation to this project in a similar manner to previous high capital development projects in Jersey. Key payment milestones and triggers will be identified for all goods and services which the States contracts as part of the delivery of the scheme. Agreement will be reached with all suppliers regarding payments for goods and services being contingent on the successful completion of each element of the project according to the payment milestones identified.
285. The charging mechanisms will also include contingencies for non or late completion of those milestones, based on the effect that such a failure has on the timeliness of the completion of the project.

Appendix 4: Financial Case

Appendix 4. Financial Case

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4.1 Original short-listed sites: relevant costs

4.1.1 Identifying the relevant costs of the investment: methodology

286. A relevant costing exercise has been undertaken for each of the three options identified in the original short-list; i.e. for the following site options:

- Site 1: the extended General Hospital site;
- Site 14 + 28: Zephyrus / Crossland / Aquasplash / Cineworld;
- Site 10: Warwick Farm

287. The costs which have been identified as relevant to the decision are as follows:

- Capital costs of construction for each of the three options
- Revenue costs associated with the lifecycle and maintenance of the buildings and equipment
- The extent to which current revenue costs associated with lifecycle and maintenance of the current hospital can be reduced as a result of the new development
- Revenue costs which are directly associated with the new development in terms of the physical development as opposed to revenue costs which would change as a result of activity.

288. In many of the above examples, the revenue costs associated with each project are the same, the relevance of including such costs occurs when the timing of increases or decreases in those costs differs between each option.

289. The total costs of each option are assessed using a methodology known as the discounted cash flow (DCF) technique. This technique identifies the relevant costs of each option as summarised above and further identifies the actual cash-flows identified with each revenue or capital item.

290. Inflation has been applied to the cash-flow elements within the DCF calculation at a rate of 2.5% per annum. The nominal cost of capital that has been used to discount the future cash-flows over the period of assessment is made up of the States of Jersey real discount rate of 3.5% (as per the Treasury Green Book discount rate) plus the inflation rate. The nominal cost of capital used as a discount factor is 6.1% (the combined effect of the real discount rate plus inflation). In addition a discount rate of 5% has also been used to assess the options, however this does not affect the decision and therefore all investment appraisal has been based on the accepted nominal rate of 6.1%

291. The time period over which the cash-flows have been assessed is 30 years. This time period aligns with the future activity projections to 2040. The result of the DCF calculation is a Net Present Cost (a combination of all costs and revenue savings over a 30 year period, discounted back to provide a value as if all costs and savings occurred in the first year of the project). The following figure summarises the capital and relevant revenue

costs that have driven the DCF calculations. These costs are based on the original site options in force at August 2012 and make use of the hospital budgets in place at that date. The physical redevelopment options and hospital revenue budgets on which both the DCF calculations and associated affordability summaries are based have been refined and updated at a later stage in this Appendix.

Figure 4.1: Summary of costs of the original short listed site options

Undiscounted Costs	Existing Site	Zephyrus / Aquasplash /	Crosslands / Cineworld Site	Warwick Farm Site
	£000	£000		£000
Construction and Land related costs				
Capitalised Construction Costs	429,224	407,860		391,413
Costs of land acquisition and proceeds of disposal	10,819	74,625		-8,630
Sub Total Construction and Land	440,043	482,485		382,783
Costs over 30 years				
Net effect of lifecycle and maintenance costs	28,195	34,307		29,617
Additional costs associated with new hospital	106,181	107,222		107,222
Total	574,419	624,014		519,622
Discounted Costs - NET PRESENT COST	448,274	503,760		409,297

292. The following figure combines the net present cost for each option with the scoring of each option against the benefits criteria.

Figure 4.2: Value for money assessment of the short listed options

	Existing Site	Non Weighted Cineworld / Aquasplash	Warwick
NPC	448,274	503,760	409,297
Benefits score	164	179	167
Benefits Ranking	3	1	2
benefits differential	8.4%	0.0%	6.7%
Cost per benefit score	2733	2814	2451
Ranking per cost benefit point	2	3	1
Benefits differential	12%	15%	0%
Risk score	102	129	115
Risk Ranking	1	3	2
Risk differential	0%	26%	13%
Risk adjusted benefits score	164	132	146
Risk adjusted Cost per benefit score	2733	3827	2809
Risk adjusted ranking per cost benefit point	1	3	2
Risk adjusted ranking per cost benefit point differential	0%	40%	3%

4.1.2 Summary of results

293. Utilising the same benefit criteria and risk categories as deployed at short-listing stage, the sites were again appraised utilising additional information available from utilities and TTS, and a ranking created once the Net Present Cost of the respective developments was completed. Sensitivity analysis was performed to test the robustness of the selection of the preferred site. At the Project Board held on 29th August, Atkins confirmed their opinion that Site 14 + 28 should be rejected as the positive benefits and risks associated with the development of this option, could not overcome the significant financial penalty arising from the re-provision and re-location of current occupiers of the site.
294. The Warwick Farm option scored well in respect of the financial impact and the benefit criteria assessed, however it scored less well in respect of risks associated with the proposed site. The Existing General Hospital site scored well in respect of controllable risks and reasonably well in respect of financial impacts, but scored less well in respect of the benefit criteria assessed. When testing sensitivities of the assessments, it was clear that both the Existing General Hospital site and the Warwick Farm site were closely matched in their assessments. If the compromised clinical functionality inherent with a phased redevelopment of the Existing General Hospital Site could be improved, then that would be the preferred option. Alternatively if the planning risks inherent with a proposed development on the Warwick Farm site could be mitigated, then that would be the preferred option.

4.1.3 Detailed analysis

295. Net present costs of each option are divided by the individual benefits scores for each option to establish the cost per benefit point for each option. The lower the cost per benefit point, the greater the value for money of each option. The first box in Figure 3.7 ranks the 3 options based on value for money and ranks the Warwick Farm option in first place, followed by the Existing General Hospital Site then the Zephyrus / Crosslands / Aquasplash / Cineworld option. The calculation of value for money as opposed to just a non-financial appraisal changes the non-financial ranking which identified the Zephyrus / Crosslands / Aquasplash / Cineworld option as having the highest potential benefits. The Zephyrus / Crosslands / Aquasplash / Cineworld option is significantly more expensive than the other two options primarily as a result of the costs of land acquisition and replacement of existing buildings that would have to occur to acquire the site for development.
296. The risk register that has been compiled to assess each option has also been integrated with the value for money calculation to take account of the additional risks associated with each option. The Existing General Hospital Site option carries the lowest risk of the three options, the Zephyrus / Crosslands / Aquasplash / Cineworld option carries the most risk, assessed as being 26.5% more risky than the Existing General Hospital Site option. The Warwick Farm option is considered 12.7% more risky than the Existing General Hospital

Site option. These differential risks have been applied to the benefits scores to create a risk adjusted benefits score to use in the value for money comparison.

297. The risk adjusted value for money calculation shifts the overall ranking again to rank the Existing General Hospital Site as ranked 1, with Warwick Farm Site ranked 2 and the Zephyrus / Crosslands / Aquasplash / Cineworld Site ranked 3.
298. It is clear from reviewing the actual value for money scores that the risk adjusted scores between the Existing General Hospital Site and Warwick Farm Site are extremely close. The Zephyrus / Crosslands / Aquasplash / Cineworld Site option is considered much poorer value for money due to the high cost of land acquisition and also the high risks associated with the option. It is recommended that the Zephyrus / Crosslands / Aquasplash / Cineworld Site option is not progressed further as a viable option as it does not represent value for money when compared to the Warwick Farm Site or Existing General Hospital Site options.
299. Whilst the Existing General Hospital Site option is ranked number 1 based on the above assessment, the differential between that and the Warwick Farm Site option is only 2.5% which cannot be considered a clear differentiator between these options.
300. A series of sensitivities have been performed to establish the adjustments that would need to occur to switch the decision from the Existing General Hospital Site to Warwick Farm Site, such a sensitivity analysis is important in evaluating the scale of change that is required to change the investment decision. The following figure demonstrates a series of sensitivity analyses that have been performed on the initial value for money assessments.

Figure 4.3: Sensitivity analysis of the original short-listed value for money assessments

		Existing Site	Cineworld / Aquasplash	Warwick
% increase in NPV of construction costs	3%			
Additional construction costs		12877	0	0
Revised risk adjusted Cost per benefit score		2812	3827	2809
Revised Ranking		2	3	1
Revised differential		0%	36%	0%
Mitigation of Risk Differential	20%			
Revised risk adjusted benefits score		164	141	150
Revised risk adjusted Cost per benefit score		2,733	3,570	2,729
Revised Ranking		2	3	1
Revised differential		0%	31%	0%
% shift in benefits scores	-3%			
Revised risk adjusted Cost per benefit score		2818	3827	2809
Revised Ranking		2	3	1
Revised differential		0%	36%	0%
Further specific reduction in benefits score re patient experience during construction				
% shift in benefits scores	-3			
Revised risk adjusted Cost per benefit score		2784	3827	2809
Revised Ranking		1	3	2
Revised differential		0%	37%	1%
% Potential Opportunity cost of not selling Warwick Farm (£k)	£9,300			
% probability of residential sale	25%			
Opportunity Cost (£k)	£2,325			
Revised risk adjusted Cost per benefit score		2733	3827	2825
Revised Ranking		1	3	2
Revised differential		0%	40%	3%

301. The following sensitivities focus on the differentials between the Existing General Hospital Site and the Warwick Farm options as the key differentiators in the investment appraisal.

4.1.4 Changes in construction costs

302. The investment decision changes to Warwick Farm if a change in the NPC of the construction cost of 3% occurs. This switch based on a small % shift in capital costs is expected as the overall differential between risk adjusted economic scores is so close. A shift of just 3% capital costs is considered highly feasible, based on fact that capital costs are based on a significant range of assumptions at this stage.

4.1.5 Reassess risk

303. Warwick farm is assessed as carrying the greater risk, primarily regarding planning issues and the fact that the site development is out with the Island Plan at present. A sensitivity analysis regarding risk shows that if 20% of the Warwick Farm identified risks are mitigated, the investment decision would switch to Warwick Farm. Such a level of mitigation is capable of being achieved should planning permission be granted.

4.1.6 Shift in benefits scores

304. Performing sensitivities on the scoring of the options against the benefits criteria also identifies that a shift of 3% in the scoring of benefits points way from the Existing General Hospital site would also result in a switch in the investment decision.

4.1.7 Enhanced scoring regarding the patient experience during the construction period

305. Additional specific sensitivities have been carried out regarding the potential for the patient experience to be further reduced through inconvenience during the construction period. Whilst expertise in minimising poor patient experience would be procured as part of the construction and design process, there may be further inevitable effects that diminish the patient experience.
306. It is assumed however that the primary planning assumptions would avoid reduced quality of care and also that the negative effect on patient experience would be for a relatively short period of time in relation to the overall life of the new hospital. This sensitivity has been judged to reduce the differential preference of the Existing General Hospital Site compared to the Warwick Farm site from 3% to 1%. Again (in the same way as for the sensitivity concerning a shift in overall benefits scoring), this sensitivity shows that the differential between the two contending sites is very small.

4.1.8 Selling Warwick Farm for residential use

307. At present the investment appraisal does not include the potential sale of the Warwick Farm site for more than its current book value, should the investment be made in either of the other two sites. The book value of the Existing General Hospital Site is c. £9.4M based on use as a hospital. Should Warwick Farm be considered available for sale in the same manner as the Existing General Hospital Site would be if not used, then there is a potential situation that Warwick Farm could be sold for use other than agricultural. The probability of such a change is considered low at this time but sensitivity for such an event has been included. If the assumption is made that a similar value could be obtained for the Warwick Farm site as is the assumption for the Existing General Hospital Site but the probability of achieving residential status is only 25%, the differential between the Existing and Warwick Farm increases only slightly, but still remains rounded to 3%. This

sensitivity does favour the Existing General Hospital Site but again is dependent on external factors and does not provide “clear water” between the two options still in contention.

308. The above sensitivities demonstrate what is also clear from the initial investment appraisal, viz. that the differential between the Existing General Hospital Site and Warwick Farm options is very small. The investment appraisal clearly demonstrates that the Zephyrus / Crosslands / Aquasplash / Cineworld option (option 2) does not represent good value for money in comparison; however the decision between Options 1 and 3 is not clear cut.
309. It is therefore appropriate to consider additional issues that can be considered of relevance to the decision, these include:
- Future assessments;
 - Further appraisal of the risks associated with each site;
 - Future proofing the development.

4.1.9 Future assessments

310. All site options have been assessed on the basis of building a new hospital on that site (albeit reutilising a few existing buildings on the Existing General Hospital Site). That is the basis of this pre feasibility study. The Existing General Hospital Site could be subject to a sub optimal redevelopment to reutilise a further array of existing structures and services rather than replace. Such a development process is not within the remit of this study and would provide a compromised solution. The point to be made here however is that the Existing General Hospital Site alone would provide that alternative solution based on a reduced capital outlay, however such an approach is not recommended from a long term patient care perspective.

4.1.10 Further appraisal of the risks associated with each site

311. Risks for both the Existing General Hospital and Warwick Farm sites have been identified and subjected to as objective as possible approach to quantifying and differentiating risk between the options. Wherever possible, the costs associated with the risks have been included in the economic appraisal, however there are many risks that cannot be quantified which are the basis of the differentiation between the options in the risk register.
312. The risks associated with Warwick Farm are identified as greater than with the Existing General Hospital Site. Furthermore it can be argued that the risks associated with the Existing General Hospital Site are focussed more on known risks that are more capable of being managed internally for which a series of contingencies can be planned. The risks associated with the Warwick Farm site are less in the direct control of the project and

therefore mitigating those risks going forward is deemed to be more dependent on external factors.

- 313. If the Warwick Farm risks can be mitigated to provide a greater degree of certainty for this site then building on the new site could be considered a preferred option, particularly regarding the longer term view of the hospital and its flexibility to respond to issues some 40 to 50 years hence (unknown at this time).
- 314. If such risks cannot be mitigated at this time, the view could be taken to develop the Existing General Hospital Site and map out all contingencies based on the greater knowledge that the Project Board possesses regards the Existing General Hospital Site and its known issues.
- 315. In addition to the Warwick Farm site having planning issues concerning changes of use and alignment with the Island Plan, both sites have potential planning issues concerning future size and scale of the hospital development, these issues are identified below.

4.1.11 Future-proofing the development

- 316. The concept of a future proofed hospital must also be borne in mind. The investment decision concerns the development of a hospital with an anticipated life of c. 60 years. The short term impediments to Warwick Farm in respect of the dependent risks associated with the site and its initial development should not preclude it from being considered as the preferred long term investment decision, particularly regards its favourable position in terms of expansion and flexibility.
- 317. The constrained/locked nature of the Existing General Hospital Site does not lend itself to the long term view concerning ease of future expansion whereas the un-developed nature of the land around the proposed Warwick Farm site does provide a preferred option in terms of longer term flexibility for expansion strategies as yet unknown.
- 318. Additionally, the phased nature of development that would be required for the Existing General Hospital Site may act as a restricting factor when potential future development is required. One example of this is the consideration of the requirement for additional hospital beds through either an expansion of existing private patient facilities (based on a commercial assessment of future requirements) or additional beds being required should community based planned strategies not reduce acute bed requirements to planned levels. Such an increase in bed numbers could be more flexibly accommodated on the Warwick Farm site than the Existing General Hospital Site.
- 319. The next stage of planning will explore optimal physical solutions for the preferred site based on a firmer view of total bed requirements; however it is accepted that the Existing General Hospital site may well pose greater problems to be resolved as a result of its locked-in site and phasing based restrictions that may impact on the height of development on parts of the site.

4.2 Revised short-listed sites: relevant costs

320. Following the assessment and evaluation of the revised long-listed site options and the subsequent identification of a revised short-list of site options, as described in Appendix 2, the same relevant costing exercise as described in section 4.1 above was undertaken for both of the two options identified in the revised short-list; i.e. for the following site options:

- Site 1E: the extended General Hospital site;
- Site 14C: Zephyrus / Crossland / Les Jardins de la Mer.

4.2.1 Summary of costs of the revised short listed site options

321. The following figure summarises the capital and relevant revenue costs that have driven the DCF calculations. These reflect the changes and refinements to both the physical options for redevelopment in terms of both cost assumptions and land receipt estimates and also the effect of ongoing updates and refinements to the hospital revenue budgets used to inform the relevant revenue costs as part of the DCF calculations.

Figure 4.4: Summary of costs of the revised short listed site options

Undiscounted Costs	Option 1E - Existing Site development £000	Option 14C - Zephyrus / Crosslands / Le Jardins de la Mer £000
Construction and Land related costs		
Capitalised Construction Costs	450,384	386,317
Costs of land acquisition and proceeds of disposal	16,411	32,448
Sub Total Construction and Land	466,795	418,765
Costs over 30 years		
Net effect of lifecycle and maintenance costs	16,423	16,716
Additional costs associated with new hospital	101,480	107,549
Total	584,698	543,030
Discounted Costs - NET PRESENT COST	438,481	429,668

322. The following figure combines the net present cost for each option with the scoring of each option against the benefits criteria.

Figure 4.5: Value for money assessment of the revised short listed options

	Non Weighted	
	Option 1E - Existing Site development	Option 14C - Zephyrus / Crosslands / Le Jardins de la Mer
NPC	438,481	429,668
Benefits score	164	176
Benefits Ranking	2	1
benefits differential	7%	0%
Cost per benefit score	2674	2441
Ranking per cost benefit point	2	1
Benefits differential	10%	0%
Risk score	106	97
Risk Ranking	2	1
Risk differential	9%	0%
Risk adjusted benefits score	149	176
Risk adjusted Cost per benefit score	2947	2441
Risk adjusted ranking per cost benefit point	2	1
Risk adjusted ranking per cost benefit point differential	21%	0%

323. A series of sensitivities have been performed to establish the adjustments that would need to occur to switch the decision from the Existing General Hospital Site to Warwick Farm Site, such a sensitivity analysis is important in evaluating the scale of change that is required to change the investment decision. The following figure demonstrates a series of sensitivity analyses that have been performed on the initial value for money assessments.

Figure 4.6: Sensitivity analysis of the original short-listed value for money assessments

		Option 1E - Existing Site development	Option 14C - Zephyrus / Crosslands / Le Jardins de la Mer
% increase in NPV of construction costs	23%		
Additional construction costs			88853
Revised risk adjusted Cost per benefit score		2947	2946
Revised Ranking		2	1
Revised differential		0%	0%
% shift in benefits scores	-17.0%		
Revised risk adjusted Cost per benefit score		2947	2941
Revised Ranking		2	1
Revised differential		0%	0%

4.2.2 Discounted Cash Flow calculations

324. Figures 4.7 and 4.8 below provide details of the DCF calculation for both of the revised short-listed options. The result of the DCF calculation is a Net Present Cost (a combination of all costs and revenue savings over a 30 year period, discounted back to provide a value as if all costs and savings occurred in the first year of the project).

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Figure 4.7: Revised short-listed site option 1E: Discounted Cash Flow calculations

States of Jersey - NPV calculation - Pre-feasibility study																																	
Option 1E: Existing Site Development																																	
	Dec-13 Year 0	Dec-14 Year 1	Dec-15 Year 2	Dec-16 Year 3	Dec-17 Year 4	Dec-18 Year 5	Dec-19 Year 6	Dec-20 Year 7	Dec-21 Year 8	Dec-22 Year 9	Dec-23 Year 10	Dec-24 Year 11	Dec-25 Year 12	Dec-26 Year 13	Dec-27 Year 14	Dec-28 Year 15	Dec-29 Year 16	Dec-30 Year 17	Dec-31 Year 18	Dec-32 Year 19	Dec-33 Year 20	Dec-34 Year 21	Dec-35 Year 22	Dec-36 Year 23	Dec-37 Year 24	Dec-38 Year 25	Dec-39 Year 26	Dec-40 Year 27	Dec-41 Year 28	Dec-42 Year 29	Dec-43 Year 30		
Capitalised Construction Costs	0																																
Capital land and on costs	361,585																																
Other	0																																
Res	7,074	9,431	9,432	4,927	4,026	4,026	4,026	4,026	4,025	324	117	112																					
Art	2,005			465	465	324	324	117	112																								
Equipment Costs	31,766			2,480	5,953	5,952	5,952	5,953	5,456																								
Sub Total	450,384	7,074	9,431	9,432	16,701	71,590	79,709	27,881	85,835	49,268	79,145	7,351	6,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Planning Contingency (included above)	0																																
Optimism Bias (included above)	0																																
Inflation adjustment included in costs (included above)	0																																
Costs/Opportunity Costs of Land Acquisition	0																																
Purchase of Land	16,411	15,590		120	120	120	120	120	120	101																							
Income from land disposal	0																																
Opportunity cost of land utilised	0																																
Revenue Costs Associated with Capital Construction	0																																
Profit/2 projected lifecycle costs groups 1 and 2 included	55,032																																
Profit/2 projected lifecycle costs additional groups 3 and 4	19,250																																
Revenue	0																																
Revenue Costs associated with redeveloped hospital	0																																
Additional portering costs - based on additional area adjusted for efficiency of design	6,148																																
Additional cleaning and domestics costs, based on additional area adjusted for efficiency of design	17,667																																
Additional heat light and power costs, based on additional area adjusted for efficiency of design	18,021																																
Additional ward nursing costs based on increased bed numbers and single room layouts	60,144																																
Removal of existing building maintenance costs	-35,114																																
Removal of existing plant maintenance costs	-22,745																																
	0																																
	0																																
	0																																
	0																																
	0																																
	0																																
Cash Flows excluding inflation	584,698	7,074	25,021	9,432	16,821	71,710	80,305	28,953	87,383	51,292	81,949	10,360	10,099	3,612	3,833	3,989	4,473	4,227	4,742	4,743	5,034	5,408	5,206	5,739	6,069	6,624	7,103	7,369	7,116	6,884	6,219	5,900	
Inflationary adjustment	2,506	1,001	1,031	1,051	1,081	1,101	1,131	1,161	1,191	1,221	1,251	1,281	1,311	1,341	1,381	1,411	1,451	1,481	1,521	1,561	1,601	1,641	1,681	1,721	1,761	1,811	1,851	1,901	1,951	2,001	2,101		
Cash Flows including inflation	728,438	7,074	25,647	9,909	18,114	79,154	90,858	33,577	103,871	62,494	102,344	13,262	13,251	4,858	5,284	5,637	6,479	6,276	7,216	7,389	8,048	8,862	8,745	9,881	10,710	11,982	13,169	14,004	13,861	13,745	12,727	12,376	
Year number		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Cost of Capital																																	
real discount rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	
inflation adjustment		2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	
nominal discount rate		6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	
Present Value		7,074	24,175	8,805	15,172	62,491	67,615	23,553	68,682	38,952	60,129	7,345	6,918	2,391	2,451	2,465	2,670	2,438	2,842	2,854	2,619	2,718	2,528	2,693	2,751	2,901	3,006	3,013	2,811	2,627	2,293		
Using Nominal Discount Rate		438,481																															

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Figure 4.8: Revised short-listed site option 14C: Discounted Cash Flow calculations

States of Jersey - NPV calculation - Pre-feasibility study																																
Option 14c: Zephyrus / Crossroads / Le Jardins de la Mer																																
	Dec-13 Year 0	Dec-14 Year 1	Dec-15 Year 2	Dec-16 Year 3	Dec-17 Year 4	Dec-18 Year 5	Dec-19 Year 6	Dec-20 Year 7	Dec-21 Year 8	Dec-22 Year 9	Dec-23 Year 10	Dec-24 Year 11	Dec-25 Year 12	Dec-26 Year 13	Dec-27 Year 14	Dec-28 Year 15	Dec-29 Year 16	Dec-30 Year 17	Dec-31 Year 18	Dec-32 Year 19	Dec-33 Year 20	Dec-34 Year 21	Dec-35 Year 22	Dec-36 Year 23	Dec-37 Year 24	Dec-38 Year 25	Dec-39 Year 26	Dec-40 Year 27	Dec-41 Year 28	Dec-42 Year 29	Dec-43 Year 30	
Capitalised Construction Costs	0																															
Capital and on costs	324,942			33,425	174,972	100,299	9,816	5,831																								
Other	0																															
Fees	29,448	7,067	7,068	3,632	2,944	2,945	491																									
AT	1,783																															
Equipment Costs	30,744				6,832	20,496	3,416																									
Sub Total	386,317	5,301	7,067	7,068	37,057	185,639	124,631	13,723	5,831	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Planning Contingency	0																															
Optimism Bias	0																															
Inflation adjustment included in costs	0																															
Costs/Opportunity Costs of Land Acquisition	0																															
Purchase of Land	46,448																															
Income from land disposal	-14,000																															
Opportunity cost of land utilised	0																															
Revenue Costs Associated with Capital Construction	0																															
Profit/loss projected lifecycle costs groups 1 and 2 included	60,195																															
projected lifecycle costs additional groups 3 and 4	19,350																															
Revenue Costs associated with redeveloped hospital	0																															
Additional portering costs - based on additional area adjusted for efficiency of design	6,590																															
Additional cleaning and domestics costs, based on additional area adjusted for efficiency of design	18,455																															
Additional heat light and power costs, based on additional area adjusted for efficiency of design	19,363																															
Additional ward nursing costs based on increased bed numbers and single room layouts	63,141																															
Revenue	0																															
Removal of existing building maintenance costs	-38,092																															
Removal of existing plant maintenance costs	-24,638																															
Costs	0																															
Cash Flows	543,000	5,301	53,515	7,068	37,057	185,639	125,353	1,489	7,597	1,766	2,772	3,418	3,586	4,116	4,272	4,035	4,774	4,253	4,846	5,083	5,237	5,838	5,100	5,712	6,733	7,521	8,621	7,926	6,720	6,251	5,709	5,712
Inflationary adjustment	2,506	1,00	1,03	1,05	1,08	1,10	1,13	1,16	1,19	1,22	1,25	1,28	1,31	1,34	1,38	1,41	1,45	1,48	1,52	1,56	1,60	1,64	1,68	1,72	1,76	1,81	1,85	1,90	1,95	2,00	2,05	2,10
Cash Flows including inflation	655,463	5,301	54,653	7,426	39,906	204,911	141,826	1,727	9,031	2,152	3,462	4,376	4,706	5,536	5,890	5,702	6,915	6,314	7,374	7,928	8,373	9,567	8,567	9,834	11,882	13,604	15,984	15,982	13,090	12,481	11,684	11,982
Year number	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Cost of Capital																																
real discount rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
inflation adjustment	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
nominal discount rate	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%
Present Value																																
Using Nominal Discount Rate	5,301	51,705	6,598	33,423	161,774	105,544	1,212	5,971	1,341	2,034	2,423	2,456	2,724	2,732	2,493	2,850	2,453	2,700	2,737	2,724	2,934	2,477	2,680	3,052	3,294	3,448	3,241	2,655	2,386	2,105	2,035	2,035
429,668																																

4.2.3 Cost drivers used to project the acute hospital quantum of costs

Division 2	Division 3	Division 4	2012	2013	Category	Cost Driver
KHA - Ambulance	KHG - Emergency Services	KKA - Frontline	3,423,213.60	3,481,647.00	Clinical Support	ED Activity
		KKB - Major Incident	10,140.00	10,030.00	Clinical Support	ED Activity
		KKC - Ambulance Training	76,111.20	76,034.00	Clinical Support	ED Activity
		KKD - Vehicle Fleet	276,967.20	348,480.00	Clinical Support	ED Activity
	KHS - Patient Transport Services	KKE - Patient Transport	400,960.80	392,504.00	Clinical Support	Inpatient Activity
KHD - Medical Directorate	KHD - Medical Directorate	KIP - Medical Staff Training	-328,600.80	-327,322.00	Overhead	Clinical Expenditure
		KKP - Medical Directorate	220,874.40	2,041,730.00	Overhead	Clinical Expenditure
KHE - Estates Management	KHE - Estates Management	KKF - GH Estates & Equip Maintenance	5,405,577.60	5,584,080.00	Overhead	Area
		KKG - Other Estates & Equip Mainten'	1,607,227.20	1,565,961.00	Overhead	Area
KHF - Facilities Management	KHF - Facilities Management	KKJ - Laundry	962,673.60	0.00	Overhead	Clinical Expenditure
		KKK - Catering	3,027,259.20	0.00	Overhead	Clinical Expenditure
		KKL - Chaplaincy	110,109.60	0.00	Overhead	Clinical Expenditure
		KKM - Domestics	5,211,674.40	0.00	Overhead	Area
		KKN - Security & Porters	2,620,197.60	0.00	Overhead	Area
		KKO - HSSD Stores	420,458.40	0.00	Overhead	Clinical Expenditure
	KKJ - Laundry	KKJ - Laundry	0.00	916,725.00	Overhead	Clinical Expenditure
	KKK - Catering	KKT - GH Catering	0.00	1,612,674.00	Overhead	Clinical Expenditure
		KKU - Community Catering	0.00	1,015,896.00	Overhead	Clinical Expenditure
	KKM - Domestics	KKR - GH Domestics	0.00	2,862,161.00	Overhead	Area
		KKS - Community Domestic	0.00	1,987,247.00	Overhead	Area
	KKN - Security & Porters	KKN - Security & Porters	0.00	2,611,852.00	Overhead	Area
	KKO - HSSD Stores	KKO - HSSD Stores	0.00	395,032.00	Overhead	Clinical Expenditure
	KKQ - Facilities Management & Admin	KKQ - Facilities Management & Admin	0.00	370,610.00	Overhead	Clinical Expenditure
KHM - Hospital Mgmt & Admin	KHM - Hospital Mgmt & Admin	KHM - Hospital Mgmt & Admin	775,068.00	-865,193.00	Overhead	Clinical Expenditure
KHO - Hospital Operations	KHB - Ambulatory Care	KIA - Cardiology	357,744.00	426,090.00	Direct	Ambulatory Activity
		KIB - Medical Outpatients	1,077,976.80	1,275,970.00	Direct	Ambulatory Activity
		KIC - Dental	1,354,826.40	1,318,859.00	Direct	Ambulatory Activity
		KID - Dermatology	492,314.40	530,520.00	Direct	Ambulatory Activity
		KIE - Diabetes	893,486.40	883,840.00	Direct	Ambulatory Activity
		KIF - ENT	901,377.60	898,220.00	Direct	Ambulatory Activity
		KIG - Main Outpatients	785,824.80	804,180.00	Direct	Ambulatory Activity
		KIH - Neurology	1,342,053.60	1,582,590.00	Direct	Ambulatory Activity
		KII - Oncology	1,388,390.40	1,775,717.00	Direct	Ambulatory Activity
		KIU - Ophthalmology	1,252,281.60	1,496,300.00	Direct	Ambulatory Activity
		KIK - Pain Clinic	158,306.40	159,020.00	Direct	Ambulatory Activity
		KIL - Renal	1,419,859.20	1,482,432.00	Direct	Ambulatory Activity
		KIM - Respiratory	441,456.00	464,120.00	Direct	Ambulatory Activity
		KIN - Rheumatology	48,528.00	48,590.00	Direct	Ambulatory Activity
		KIU - Palliative Care	-6,052.80	15,780.00	Direct	Ambulatory Activity
		KJD - Transfusion	268,644.00	276,600.00	Direct	Ambulatory Activity
		KJM - Urology	130,471.20	176,107.00	Direct	Ambulatory Activity
		KJX - Sexual Hlth & Family Planning	221,450.40	239,420.00	Direct	Ambulatory Activity
	KHC - Clinical Support	KJA - Audiology	453,943.20	471,740.00	Clinical Support	Inpatient Activity
		KJB - Clinical Investigations	386,460.00	513,430.00	Clinical Support	Inpatient Activity
		KJC - Pathology	6,774,698.40	6,992,414.00	Clinical Support	Inpatient Activity
		KJE - Pharmacy	1,628,107.20	1,639,757.00	Clinical Support	Inpatient Activity
		KJF - Radiology	2,290,884.00	2,440,305.00	Clinical Support	Inpatient Activity
		KJG - Hospital Therapies	3,372,199.20	3,564,286.00	Clinical Support	Inpatient Activity
	KHI - Inpatients	KJH - General Medicine	4,424,954.40	4,619,454.00	Direct	Inpatient Activity
		KJI - General Surgery	10,374,921.60	9,122,241.00	Direct	Inpatient Activity
		KJJ - ITU	2,231,640.00	2,268,818.00	Direct	Inpatient Activity
		KJK - Private Patients	-1,838,215.20	-2,239,633.00	Direct	Inpatient Activity
		KJL - Rehabilitation	1,155,576.00	1,091,874.00	Direct	Inpatient Activity
	KHP - Hospital Operations Support	KHK - UK Contracts	8,536,730.40	11,076,725.00	Overhead	Clinical Expenditure
		KIO - Medical Secretaries	1,443,122.40	1,520,244.00	Overhead	Clinical Expenditure
		KIQ - Travel Office	625,310.40	611,360.00	Overhead	Clinical Expenditure
		KIR - Appointments	508,555.20	541,626.00	Overhead	Clinical Expenditure
		KIS - Coding & Information	851,385.60	754,713.00	Overhead	Clinical Expenditure
		KIT - JETS	1,127,308.80	1,166,648.00	Overhead	Clinical Expenditure
		KJY - Bed Management	58,819.20	60,970.00	Overhead	Clinical Expenditure
		KJZ - Elective Bookings	126,276.00	142,030.00	Overhead	Clinical Expenditure
		KKL - Chaplaincy	0.00	107,296.00	Overhead	Clinical Expenditure
	KHT - Theatres & Anaesthetics	KIV - Day Surgery Unit	1,526,294.40	1,513,898.00	Clinical Support	Day Case Activity
		KIW - Anaesthetics	2,804,786.40	2,573,150.00	Clinical Support	Inpatient Surgical Activity
		KIX - Endoscopy Unit	1,633,267.20	1,906,570.00	Clinical Support	Inpatient Surgical Activity
		KIY - Main Theatres	4,802,289.60	5,003,834.00	Clinical Support	Inpatient Surgical Activity
		KIZ - Sterile Services	690,405.60	725,529.00	Clinical Support	Inpatient Surgical Activity
	KHU - Emergency Care	KJN - EAU	1,362,103.20	1,364,807.00	Direct	Inpatient Activity
		KJO - Emergency Department	3,418,022.40	3,248,410.00	Direct	ED Activity
		KJP - GP Co-Op	9,216.00	84,920.00	Direct	ED Activity
		KJQ - Medical Day Care	66,542.40	70,510.00	Direct	Inpatient Activity
		KJR - Night Team	227,241.60	223,750.00	Direct	Inpatient Activity
	KHW - Women & Children	KJS - Assisted Reproduction	38,546.40	22,288.00	Direct	Maternity Activity (IP)
		KJT - Maternity	3,130,207.20	3,415,608.00	Direct	Maternity Activity (IP)
		KJU - Paediatrics	2,584,020.00	2,715,020.00	Direct	Paediatric Activity (IP)
		KJV - SCBU	986,479.20	989,110.00	Direct	Maternity Activity (IP)
Grand Total			£104,560,949	£108,258,205		

4.2.4 30 year projection of hospital quantum of cost

Summary of the Acute Hospital Quantum of Cost - Based on Option 1E

EXCLUDES INFLATION

Service/Category	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Adult Inpatients	14,863	15,028	15,191	15,357	15,507	15,698	15,891	16,076	16,283	16,487	16,690	16,894	17,098	17,302	17,514
Paediatrics	2,715	2,725	2,732	2,728	2,731	2,726	2,726	2,728	2,728	2,729	2,731	2,732	2,733	2,734	2,735
Women's	4,427	4,411	4,388	4,377	4,366	4,363	4,357	4,353	4,352	4,353	4,354	4,355	4,355	4,356	4,362
Day Cases	1,514	1,528	1,541	1,555	1,569	2,044	2,063	2,082	2,102	2,121	2,140	2,158	2,177	2,196	2,214
Theatres (IP)	10,209	10,306	10,399	10,498	10,596	10,701	10,807	10,907	11,016	11,123	11,230	11,337	11,445	11,552	11,653
Clinical Support	16,014	16,200	16,383	16,569	16,737	16,952	17,167	17,375	17,607	17,836	18,065	18,293	18,522	18,750	18,988
Ambulatory Care	13,854	13,944	14,035	14,134	14,232	14,334	14,446	14,555	14,677	14,776	14,875	14,975	15,074	15,174	15,249
Emergency Dept	8,909	8,701	8,458	8,502	8,542	8,585	8,627	8,669	8,716	8,764	8,813	8,862	8,911	8,959	9,010
Sub-Total	72,505	72,843	73,126	73,219	74,279	75,403	76,084	76,744	77,480	78,189	78,898	79,606	80,315	81,024	81,725
Overheads	35,753	35,847	35,927	37,202	38,467	39,891	41,191	41,375	41,581	41,779	41,977	42,175	42,373	42,571	42,767
TOTAL	108,258	108,690	109,053	110,920	112,746	115,294	117,275	118,119	119,061	119,968	120,875	121,781	122,688	123,595	124,492

Additional Financial Flows as a consequence of redevelopment

Additional Lifecycle costs for buildings and equipment	0	0	0	0	0	0	0	0	0	937	1,243	1,366	1,846	2,067	2,223
Reduction in existing Lifecycle and Maintenance Costs	0	0	0	0	0	-482	-964	-1,446	-1,929	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411
Additional ward nursing costs due to shift to single rooms				383	765	1,148	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531
GRAND TOTAL	108,258	108,690	109,053	111,303	113,512	115,960	117,841	118,204	118,663	120,025	121,237	122,267	123,654	124,782	125,834

Service/Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Adult Inpatients	17,726	17,938	18,150	18,362	18,546	18,729	18,913	19,096	19,280	19,463	19,647	19,830	20,014	20,197	20,381
Paediatrics	2,736	2,738	2,739	2,740	2,743	2,747	2,750	2,752	2,757	2,760	2,764	2,767	2,771	2,774	2,778
Women's	4,368	4,373	4,379	4,385	4,393	4,401	4,410	4,418	4,427	4,435	4,443	4,452	4,460	4,468	4,477
Day Cases	2,231	2,249	2,266	2,284	2,297	2,311	2,325	2,339	2,353	2,367	2,380	2,394	2,408	2,422	2,436
Theatres (IP)	11,754	11,855	11,956	12,057	12,141	12,225	12,308	12,392	12,476	12,560	12,643	12,727	12,811	12,895	12,978
Clinical Support	19,226	19,464	19,702	19,940	20,146	20,352	20,558	20,764	20,969	21,175	21,381	21,587	21,793	21,999	22,204
Ambulatory Care	15,324	15,399	15,473	15,548	15,593	15,638	15,683	15,728	15,773	15,817	15,862	15,907	15,952	15,997	16,042
Emergency Dept	9,061	9,111	9,162	9,213	9,262	9,311	9,359	9,408	9,457	9,506	9,555	9,604	9,653	9,702	9,751
Sub-Total	82,426	83,127	83,828	84,528	85,121	85,714	86,306	86,899	87,491	88,084	88,676	89,269	89,861	90,454	91,046
Overheads	42,963	43,159	43,355	43,551	43,716	43,882	44,048	44,213	44,379	44,544	44,710	44,876	45,041	45,207	45,373
TOTAL	125,389	126,285	127,182	128,079	128,837	129,596	130,354	131,112	131,870	132,628	133,386	134,144	134,903	135,661	136,419

Additional Financial Flows as a consequence of redevelopment

Additional Lifecycle costs for buildings and equipment	2,707	2,461	2,976	2,977	3,268	3,642	3,440	3,973	4,303	4,858	5,337	5,603	5,350	5,118	4,453
Reduction in existing Lifecycle and Maintenance Costs	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411
Additional ward nursing costs due to shift to single rooms	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531
GRAND TOTAL	127,215	127,866	129,278	130,176	131,225	132,357	132,914	134,205	135,293	136,406	137,843	138,867	139,372	139,899	139,992

INCLUDES INFLATION

Service/Category	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Adult Inpatients	14,863	15,404	15,960	16,538	17,117	17,761	18,428	19,109	19,839	20,641	21,444	22,246	23,048	23,850	24,608
Paediatrics	2,715	2,793	2,870	2,938	3,015	3,084	3,161	3,243	3,324	3,413	3,502	3,591	3,680	3,769	3,870
Women's	4,427	4,521	4,610	4,713	4,819	4,936	5,053	5,174	5,302	5,443	5,584	5,724	5,865	6,005	6,172
Day Cases	1,514	1,566	1,619	1,674	1,731	2,313	2,393	2,474	2,561	2,654	2,747	2,841	2,934	3,027	3,134
Theatres (IP)	10,209	10,563	10,925	11,305	11,696	12,107	12,532	12,965	13,422	13,922	14,423	14,923	15,424	15,924	16,501
Clinical Support	16,014	16,605	17,212	17,843	18,475	19,180	19,909	20,654	21,453	22,332	23,211	24,090	24,969	25,848	26,898
Ambulatory Care	13,854	14,293	14,746	15,221	15,709	16,217	16,753	17,301	17,882	18,489	19,096	19,703	20,310	20,917	21,584
Emergency Dept	8,909	8,918	8,887	9,155	9,428	9,713	10,005	10,305	10,619	10,966	11,312	11,658	12,004	12,351	12,754
Sub-Total	72,505	74,664	76,828	79,387	81,990	85,312	88,234	91,225	94,402	97,860	101,318	104,776	108,234	111,692	115,721
Overheads	35,753	36,744	37,745	40,062	42,461	45,133	47,768	49,182	50,662	52,267	53,871	55,476	57,080	58,685	60,533
TOTAL	108,258	111,407	114,573	119,449	124,451	130,445	136,003	140,407	145,064	150,127	155,189	160,252	165,314	170,377	176,253

Additional Financial Flows as a consequence of redevelopment

Additional Lifecycle costs for buildings and equipment	0	0	0	0	0	0	0	0	0	1,199	1,631	1,837	2,545	2,921	3,220
Reduction in existing Lifecycle and Maintenance Costs	0	0	0	0	0	-559	-1,146	-1,762	-2,409	-3,086	-3,163	-3,242	-3,323	-3,406	-3,492
Additional ward nursing costs due to shift to single rooms	0	0	0	422	866	1,331	1,819	1,865	1,912	1,959	2,008	2,059	2,110	2,163	2,217
GRAND TOTAL	108,258	111,407	114,573	119,871	125,317	131,217	136,676	140,509	144,567	150,200	155,665	160,905	166,646	172,054	178,198

Service/Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Adult Inpatients	25,766	26,723	27,681	28,639	29,788	30,937	32,087	33,236	34,385	35,534	36,684	37,833	38,982	40,132	41,281
Paediatrics	3,971	4,072	4,172	4,273	4,398	4,523	4,648	4,773	4,897	5,022	5,147	5,272	5,397	5,522	5,646
Women's	6,339	6,505	6,672	6,839	7,044	7,249	7,455	7,660	7,866	8,071	8,276	8,482	8,687	8,893	9,098
Day Cases	3,241	3,348	3,455	3,562	3,687	3,812	3,938	4,063	4,189	4,314	4,440	4,565	4,691	4,816	4,941
Theatres (IP)	17,077	17,653	18,229	18,805	19,488	20,171	20,854	21,538	22,221	22,904	23,587	24,270	24,953	25,636	26,319
Clinical Support	27,948	28,999	30,049	31,100	32,361	33,622	34,883	36,143	37,404	38,665	39,926	41,187	42,448	43,709	44,970
Ambulatory Care	22,250	22,917	23,584	24,250	25,008	25,766	26,524	27,282	28,040	28,798	29,556	30,313	31,071	31,829	32,587
Emergency Dept	13,158	13,561	13,965	14,369	14,861	15,354	15,847	16,339	16,832	17,325	17,817	18,310	18,803	19,295	19,788
Sub-Total	119,749	123,778	127,807	131,836	136,835	141,835	146,834	151,834	156,833	161,833	166,833	171,832	176,832	181,831	186,831
Overheads	62,381	64,229	66,076	67,924	70,125	72,326	74,527	76,728	78,928	81,129	83,330	85,531	87,732	89,932	92,133
TOTAL	182,130	188,007	193,883	199,760	206,960	214,161	221,361	228,561	235,762	242,962	250,162	257,362	264,562	271,762	278,962

Additional Financial Flows as a consequence of redevelopment

Additional Lifecycle costs for buildings and equipment	4,019	3,745	4,642	4,759	5,355	6,117	5,922	7,011	7,783	9,006	10,142	10,914	10,681	10,474	9,340
Reduction in existing Lifecycle and Maintenance Costs	-3,579	-3,668	-3,760	-3,854	-3,950	-4,049	-4,150	-4,254	-4,360	-4,469	-4,581	-4,696	-4,813	-4,933	-5,057
Additional ward nursing costs due to shift to single rooms	2,272	2,329	2,387	2,447	2,508	2,571	2,635	2,701	2,769	2,838	2,909	2,981	3,056	3,132	3,211
GRAND TOTAL	184,842	190,412	197,152	203,112	210,673	218,399	225,168	233,219	240,953	249,137	257,232	264,962	271,687	278,436	284,256

Hospital Pre Feasibility Spatial Assessment Project

Strategic Outline Case:

Appendix 4: Financial Case

Date: 14th October 2013

Summary of the Acute Hospital Quantum of Cost - Based on Option 14C

EXCLUDES INFLATION

Service/Category	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Adult Inpatients	14,863	15,028	15,191	15,357	15,507	15,698	15,891	16,076	16,283	16,487	16,690	16,894	17,098	17,302	17,514
Paediatrics	2,715	2,725	2,732	2,728	2,731	2,726	2,726	2,728	2,728	2,729	2,731	2,732	2,733	2,734	2,735
Women's	4,427	4,411	4,388	4,377	4,366	4,363	4,357	4,353	4,352	4,353	4,354	4,355	4,355	4,356	4,362
Day Cases	1,514	1,528	1,541	1,555	1,569	2,044	2,063	2,082	2,102	2,121	2,140	2,158	2,177	2,196	2,214
Theatres (IP)	10,209	10,306	10,399	10,498	10,596	10,701	10,807	10,907	11,016	11,123	11,230	11,337	11,445	11,552	11,653
Clinical Support	16,014	16,200	16,383	16,569	16,737	16,952	17,167	17,375	17,607	17,836	18,065	18,293	18,522	18,750	18,988
Ambulatory Care	13,854	13,944	14,035	14,134	14,232	14,334	14,446	14,555	14,677	14,776	14,875	14,975	15,074	15,174	15,249
Emergency Dept	8,909	8,701	8,458	8,502	8,542	8,585	8,627	8,669	8,716	8,764	8,813	8,862	8,911	8,959	9,010
Sub-Total	72,505	72,843	73,126	73,719	74,279	75,403	76,084	76,744	77,480	78,189	78,898	79,606	80,315	81,024	81,725
Overheads	35,753	35,847	35,927	37,202	38,467	39,891	41,191	41,375	41,581	41,779	41,977	42,175	42,373	42,571	42,767
TOTAL	108,258	108,690	109,053	110,920	112,746	115,294	117,275	118,119	119,061	119,968	120,875	121,781	122,688	123,595	124,492

Additional Financial Flows as a consequence of redevelopment

Additional Lifecycle costs for buildings and equipment	0	0	0	0	0	0	0	0	0	1,006	1,652	1,820	2,350	2,506	2,269
Reduction in existing Lifecycle and Maintenance Costs	0	0	0	0	0	0	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411
Additional ward nursing costs due to shift to single rooms							1,148	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531
GRAND TOTAL	108,258	108,690	109,053	110,920	112,746	115,294	116,012	117,239	118,181	120,094	121,646	122,721	124,158	125,221	125,880

Service/Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Adult Inpatients	17,726	17,938	18,150	18,362	18,546	18,729	18,913	19,096	19,280	19,463	19,647	19,830	20,014	20,197	20,381
Paediatrics	2,736	2,738	2,739	2,740	2,743	2,747	2,750	2,754	2,757	2,760	2,764	2,767	2,771	2,774	2,778
Women's	4,368	4,373	4,379	4,385	4,393	4,401	4,410	4,418	4,427	4,436	4,443	4,452	4,460	4,468	4,477
Day Cases	2,231	2,249	2,266	2,284	2,297	2,311	2,325	2,339	2,353	2,367	2,380	2,394	2,408	2,422	2,436
Theatres (IP)	11,754	11,855	11,956	12,057	12,141	12,225	12,308	12,392	12,476	12,560	12,643	12,727	12,811	12,895	12,978
Clinical Support	19,226	19,464	19,702	19,940	20,146	20,352	20,558	20,764	20,969	21,175	21,381	21,587	21,793	21,999	22,204
Ambulatory Care	15,324	15,399	15,473	15,548	15,593	15,638	15,683	15,728	15,773	15,817	15,862	15,907	15,952	15,997	16,042
Emergency Dept	9,061	9,111	9,162	9,213	9,262	9,311	9,359	9,408	9,457	9,506	9,555	9,604	9,653	9,702	9,751
Sub-Total	82,426	83,127	83,828	84,528	85,121	85,714	86,306	86,899	87,491	88,084	88,676	89,269	89,861	90,454	91,046
Overheads	42,963	43,159	43,355	43,551	43,716	43,882	44,048	44,213	44,379	44,544	44,710	44,876	45,041	45,207	45,373
TOTAL	125,389	126,285	127,182	128,079	128,837	129,596	130,354	131,112	131,870	132,628	133,386	134,144	134,903	135,661	136,419

Additional Financial Flows as a consequence of redevelopment

Additional Lifecycle costs for buildings and equipment	3,008	2,487	3,080	3,317	3,471	4,072	3,334	3,946	4,967	5,755	6,855	6,160	4,954	4,485	3,943
Reduction in existing Lifecycle and Maintenance Costs	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411	-2,411
Additional ward nursing costs due to shift to single rooms	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531
GRAND TOTAL	127,516	127,892	129,382	130,516	131,428	132,787	132,808	134,178	135,957	137,503	139,361	139,424	138,976	139,266	139,482

INCLUDES INFLATION

Service/Category	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Adult Inpatients	14,863	15,404	15,960	16,538	17,117	17,761	18,428	19,109	19,839	20,641	21,444	22,246	23,048	23,850	24,808
Paediatrics	2,715	2,793	2,870	2,938	3,015	3,084	3,161	3,243	3,324	3,413	3,502	3,591	3,680	3,769	3,870
Women's	4,427	4,521	4,610	4,713	4,819	4,936	5,053	5,174	5,302	5,433	5,564	5,695	5,826	5,957	6,172
Day Cases	1,514	1,566	1,619	1,674	1,731	2,213	2,293	2,474	2,561	2,654	2,747	2,841	2,934	3,027	3,134
Theatres (IP)	10,209	10,563	10,925	11,305	11,696	12,107	12,532	12,965	13,422	13,922	14,423	14,923	15,424	15,924	16,501
Clinical Support	16,014	16,605	17,212	17,843	18,475	19,180	19,909	20,654	21,453	22,323	23,211	24,090	24,969	25,848	26,898
Ambulatory Care	13,854	14,293	14,746	15,221	15,709	16,217	16,753	17,301	17,882	18,489	19,096	19,703	20,310	20,917	21,584
Emergency Dept	8,909	8,918	8,887	9,155	9,428	9,713	10,005	10,305	10,619	10,966	11,312	11,658	12,004	12,351	12,754
Sub-Total	72,505	74,664	76,828	79,387	81,990	85,312	88,234	91,225	94,402	97,860	101,318	104,776	108,234	111,692	115,721
Overheads	35,753	36,744	37,745	40,062	42,461	45,133	47,768	49,182	50,662	52,267	53,871	55,476	57,080	58,685	60,533
TOTAL	108,258	111,407	114,573	119,449	124,451	130,445	136,003	140,407	145,064	150,127	155,189	160,252	165,314	170,377	176,253

Additional Financial Flows as a consequence of redevelopment

Additional Lifecycle costs for buildings and equipment	0	0	0	0	0	0	0	0	0	1,288	2,168	2,448	3,240	3,541	3,286
Reduction in existing Lifecycle and Maintenance Costs	0	0	0	0	0	0	-2,866	-2,937	-3,011	-3,086	-3,163	-3,242	-3,323	-3,406	-3,492
Additional ward nursing costs due to shift to single rooms	0	0	0	0	0	0	1,365	1,865	1,912	1,959	2,008	2,059	2,110	2,163	2,217
GRAND TOTAL	108,258	111,407	114,573	119,449	124,451	130,445	134,502	139,334	143,965	150,288	156,202	161,516	167,340	172,674	178,265

Service/Category	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Adult Inpatients	25,766	26,723	27,681	28,639	29,788	30,937	32,087	33,236	34,385	35,534	36,684	37,833	38,982	40,132	41,281
Paediatrics	3,971	4,072	4,172	4,273	4,398	4,523	4,648	4,773	4,897	5,022	5,147	5,272	5,397	5,522	5,646
Women's	6,339	6,505	6,672	6,839	7,044	7,249	7,455	7,660	7,866	8,071	8,276	8,482	8,687	8,893	9,098
Day Cases	3,241	3,348	3,455	3,562	3,687	3,812	3,938	4,063	4,189	4,314	4,440	4,565	4,691	4,816	4,941
Theatres (IP)	17,077	17,653	18,229	18,805	19,488	20,171	20,854	21,538	22,221	22,904	23,587	24,270	24,953	25,636	26,319
Clinical Support	27,948	28,999	30,049	31,100	32,361	33,622	34,883	36,143	37,404	38,665	39,926	41,187	42,448	43,709	44,970
Ambulatory Care	22,250	22,917	23,584	24,250	25,008	25,766	26,524	27,282	28,040	28,798	29,555	30,313	31,071	31,829	32,587
Emergency Dept	13,158	13,561	13,965	14,369	14,861	15,354	15,847	16,339	16,832	17,325	17,817	18,310	18,803	19,295	19,788
Sub-Total	119,749	123,778	127,807	131,836	136,835	141,835	146,834	151,833	156,833	161,833	166,833	171,832	176,832	181,831	186,831
Overheads	62,381	64,229	66,076	67,924	70,125	72,326	74,527	76,728	78,928	81,129	83,330	85,531	87,732	89,932	92,133
TOTAL	182,130	188,007	193,883	199,760	206,960	214,161	221,361	228,561	235,762	242,962	250,162	257,362	264,562	271,762	278,962

Additional Financial Flows as a consequence of redevelopment

Additional Lifecycle costs for buildings and equipment	4,465	3,784	4,804	5,303	5,688	6,839	5,740	6,963	8,984	10,669	13,027	11,998	9,891	9,178	8,271
Reduction in existing Lifecycle and Maintenance Costs	-3,579	-3,668	-3,760	-3,854	-3,950	-4,049	-4,150	-4,254	-4,360	-4,469	-4,581	-4,696	-4,813	-4,933	-5,057
Additional ward nursing costs due to shift to single rooms	2,272	2,329	2,387	2,447	2,508	2,571	2,635	2,701	2,769	2,838	2,909	2,981	3,056	3,132	3,211
GRAND TOTAL	185,289	190,452	197,314	203,656	211,006	219,122	224,986	233,171	242,154	250,800	260,116	266,407	270,897	277,141	283,188

Appendix 5: Management Case

Appendix 5. Management Case

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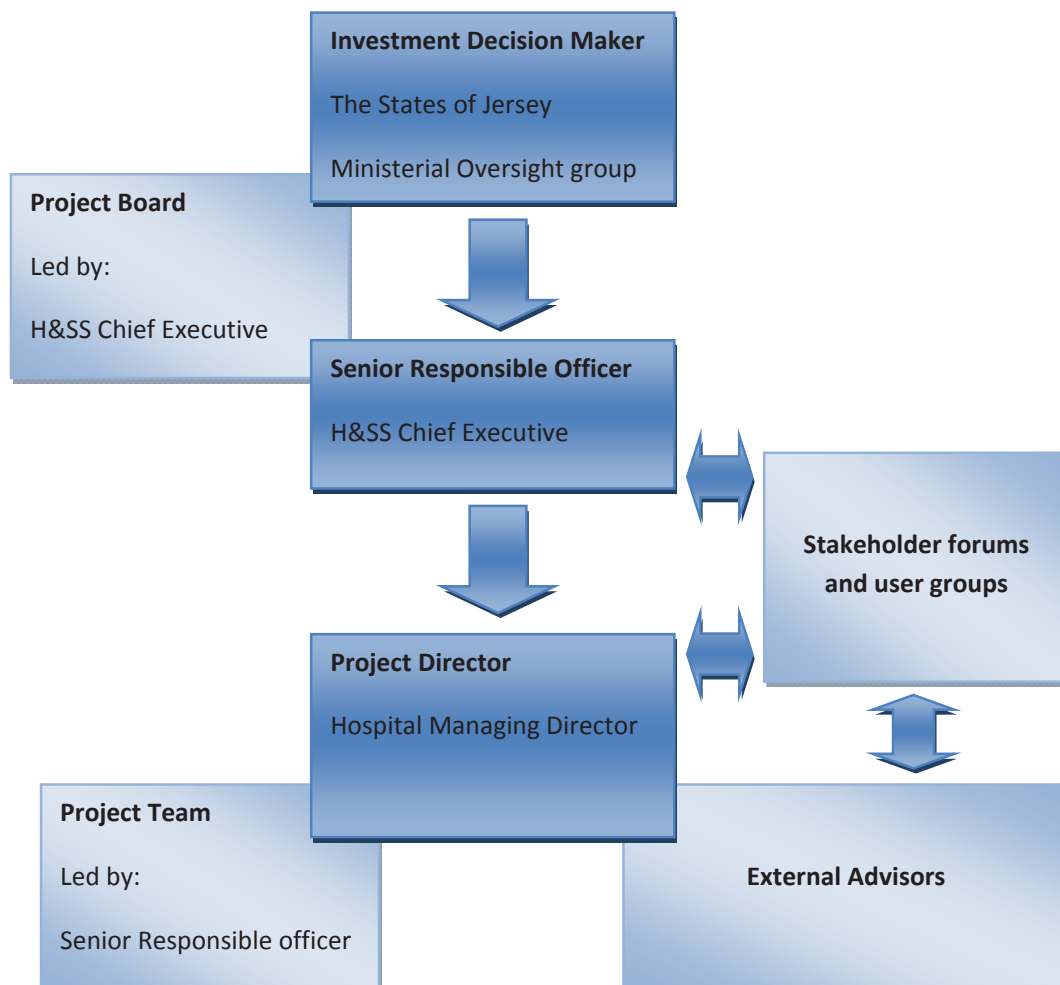
5.1 Project management arrangements

325. The project will be managed as one within the programme management approach adopted for the Health and Social Services transformation. This is expected to be the P3M3 approach recommended by UK Government for public programmes. The Project will be managed using Prince 2 project management principles and the Office of Government Commerce guidance on construction excellence.

5.1.1 Outline reporting structure post Pre-Feasibility Stage

326. The following project structure will be deployed in accordance with best practice. Following approval of this Strategic Outline Case detailed project structures and management arrangements will be put in place.

Figure 5.1: Outline reporting Structure Post Pre-Feasibility Stage Project



5.1.2 Roles and responsibilities

327. Figure 5.2 below summarises the roles and responsibilities of the outline project structure.

Role	Responsibility
Investment Decision Maker	Collective and final responsibility for the investment decision
Senior Responsible Officer	Personal accountability and overall responsibility for the delivery of the successful project
Project Director	Leading, managing and co-ordinating the project team on a day to day basis
Project Board	Provides the senior responsible officer with stakeholder and technical inputs to decisions affecting the project
Project Team	Takes forward the decisions of the Project Board and develops the operational elements of the project
Stakeholder Forums and User groups	Provides the Project Board with further insight and advice on the detailed requirements of the project

Figure 5.2: Roles and responsibilities of the components of the project structure

5.2 Clinical planning work programmes

328. The OBC stage of the hospital re-development will require a detailed clinical planning programme to be developed to support the physical construction of the new hospital. That programme will comprehensively cover a number of key strategic and planning requirements as part of the development process.

5.2.1 Revisiting the strategic modelling process

329. Detailed testing and challenge of the strategic modelling assumptions to prepare the SOC. The development of the OBC requires significant stakeholder involvement, particularly regarding the high level strategic assumptions contained within it. The OBC will need to ensure that there is full understanding and integration of the contingent impacts of the developing community based strategies with the acute hospital planning assumptions. This approach early on in the OBC process is crucial to confirming the clinical acceptability of the acute development.

330. Following this revisiting and agreement of the strategic drivers for change, a more detailed clinical planning process is required as part of the clinical design phase of the project. The following section outlines an approach to this clinical planning phase which

will need to be reviewed and agreed between the States Project Board and the appointed Healthcare Planners for the OBC.

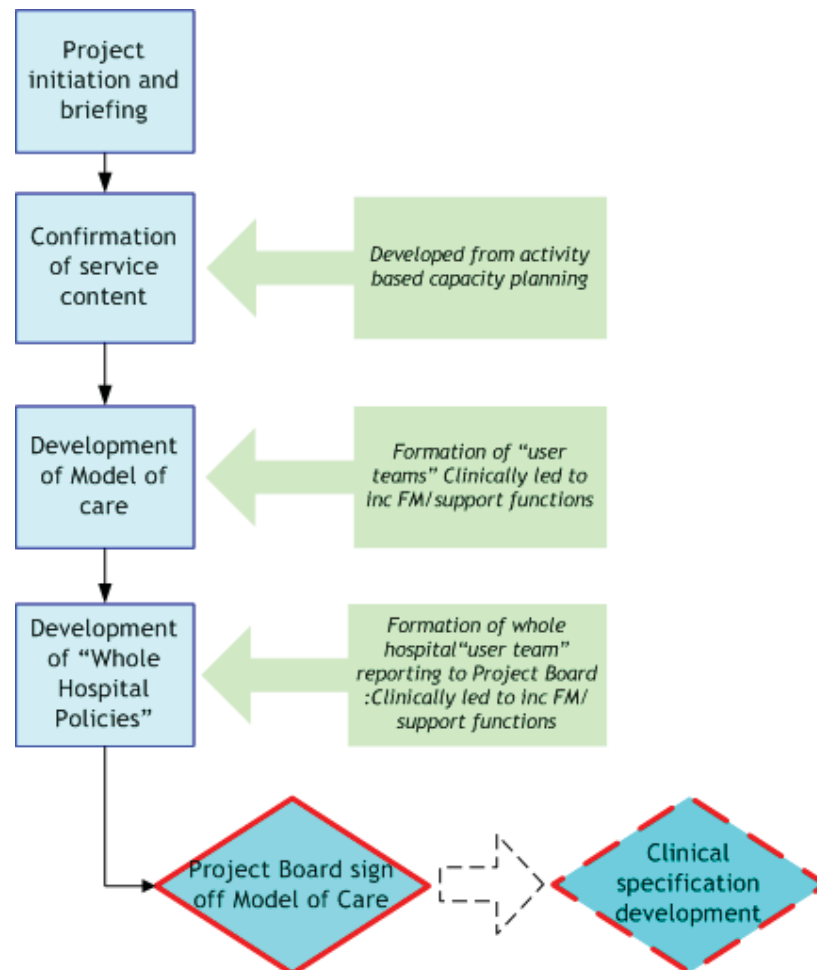
5.2.2 A structured clinical planning process

331. The process of clinical planning is best viewed in 3 distinct phases, plus a fourth “sub phase” to ensure that the Room Data Sheet (RDS) process is delivered to assist the overall development of the project - adding clarity to the design brief for both the users and design team alike.
332. As a preamble to the process, it is important to both establish the clinical user groups, the remit of the groups and the reporting structure for them, especially in terms of how they feed into the project and report to the Project Board. It is essential that the clinical user groups are clinically led and that each user group has appropriate representation from Facilities Management (including any potential specialist advice) and other support functions.
333. In high level terms the clinical planning process is:
- Development and approval of the Model of Care and whole hospital policies
 - Development and approval of the Output based specifications and schedules of accommodation
 - Support to the design team for the development of the drawn solution

5.2.3 Phase 1: Model of care

334. An initial briefing session(s) with the hospital managers will be required to generate the base functional content for the scheme based on outputs from the agreed clinical strategy process highlighted in section 5.2.4 below.
335. A list of all relevant clinical, clinical support and non clinical support departments, customised to meet the precise need of the Hospital will be developed. A detailed model of care will be generated which will dictate how departments are to be grouped and patients and managed and will indicate the process flows through the hospital. It would also at this stage be normal to lay down whole hospital operating principles (whole hospital policies) to determine the high-level infection control regime and the operating principles of the facilities management, administration processes and other hospital support functions.
336. The following process flow indicates the typical solution for the generation of the model of care and whole hospital policies:

Figure 5.3: Process Flow, model of care an whole hospital policies



5.2.4 Phase 2: Clinical specifications

337. The aim of a "clinical output based" specification (OBS) is to both clarify, in the minds of clinical service delivery teams, the exact functionality that they require from the facility that is in question and to describe to the design team (Architect, Engineer, Contractor) the way in which the building needs to function and operate to deliver clinical functionality.
338. Ideally an OBS should be developed from a robust work force plan and/or in conjunction with such a process to ensure that the clinical process, both for the benefit of the patients, staff and the relatives of the patients, is delivered by the most economical number of staff possible. If this is done, the trusts revenue plan will be more affordable than would be the case of designing a facility and then determining the number of staff that are required.

339. A number of factors for each Clinical OBS must be considered, the list below indicates some such factors. Depending upon the service in question, some other issues may be relevant. Such factors are described in “output terms” and are not generally absolute in their formulation, as long as the desired result is met. For example room capacities are often stated, function relationships are also noted. It is then up to the design team to meet these requirements via the production of planning drawings.
340. Consequently it is the OBS that, when correctly formulated can act as the prime briefing document to the design team. The Schedule of Accommodation is produced as a summary of the OBS and assists the design team by giving actual sizes for rooms as well as acting as a summary of agreed requirements.
341. The OBS will in due course formulate the operational policy for the service/department in question. It is therefore a live document and must be controlled to meet the needs of the audit criteria set for the project.
342. For each identified service, a clinical specification will be required. The key elements of each specification are:
- Scope of service ~ This section describes what the facility is for, the departments it contains and briefly how each dept interacts with each other
 - Activity indicators ~ What drives the activity. The relationship to other health facilities must be stated here. Is there a co-dependency of facility?
 - Work patterns (hours of operation). A simple statement of the current and future hours of operation is required. This will both enable the overall environmental design of the building to be completed, and in the case of where future FM services are to be considered, define the availability criteria of the facility.
 - Key operational processes. This section is considered the main element of the OBS. It describes how various groups of people will move around the department, (Staff, patients, visitors and FM staff) Diagrams are often used to indicate room relationships and schematic flows around the department. This section correlates with the overall review of whole hospital relationships as well as intra and inter-departmental relationships.
 - Functional requirements. This section describes the functional requirements of each key room, what it is used for, the number of people who typically will use it and some of the key equipment and furniture it must contain. It is important that such issues and clinical process, control of infection and other issues that have a major impact upon the design of the building are noted under this section.
 - Key departmental and inter-departmental relationships. This section describes, as appropriate, how the department relates to other departments. It is usual to derive an adjacency matrix from this information, however it is not usual to attach adjacency matrices to OBS documents.

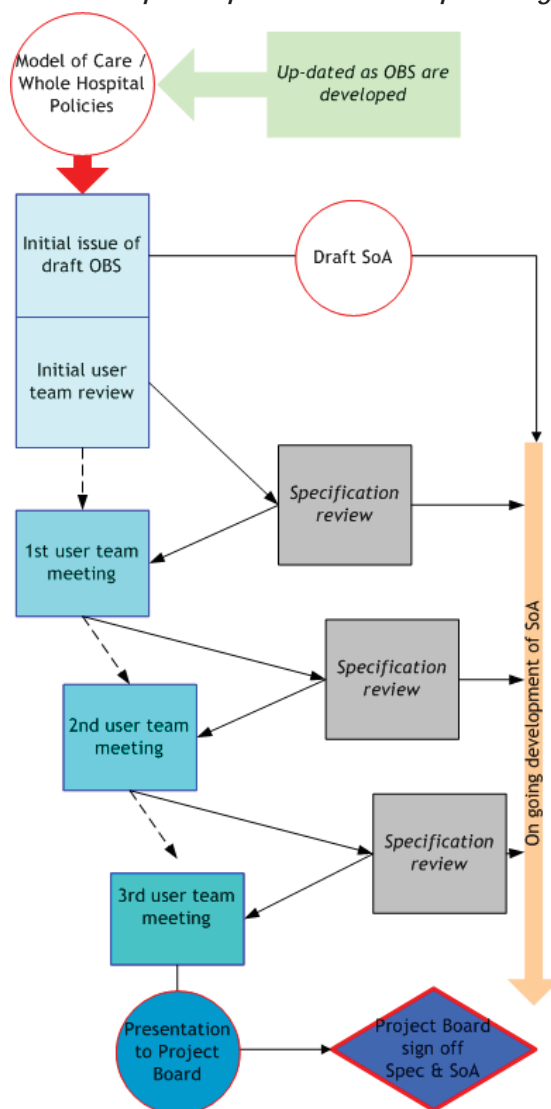
- Design guidance. This section details environmental issues not covered within the operational process so far described. It is also often use to raise a specific issues, such as infection control

343. Draft specifications will be produced for initial user consideration. A process of engagement (commonly three or more meetings) per department will then be pursued to develop the specifications and develop a robust Schedule of Accommodation.

344. Once this process has been completed, the resulting specifications and Schedule of Accommodation will be offered to the Project Board for approval.

345. The following flow chart details the proposed phase 2 process:

Figure 5.4: Proposed phase 2 clinical planning process

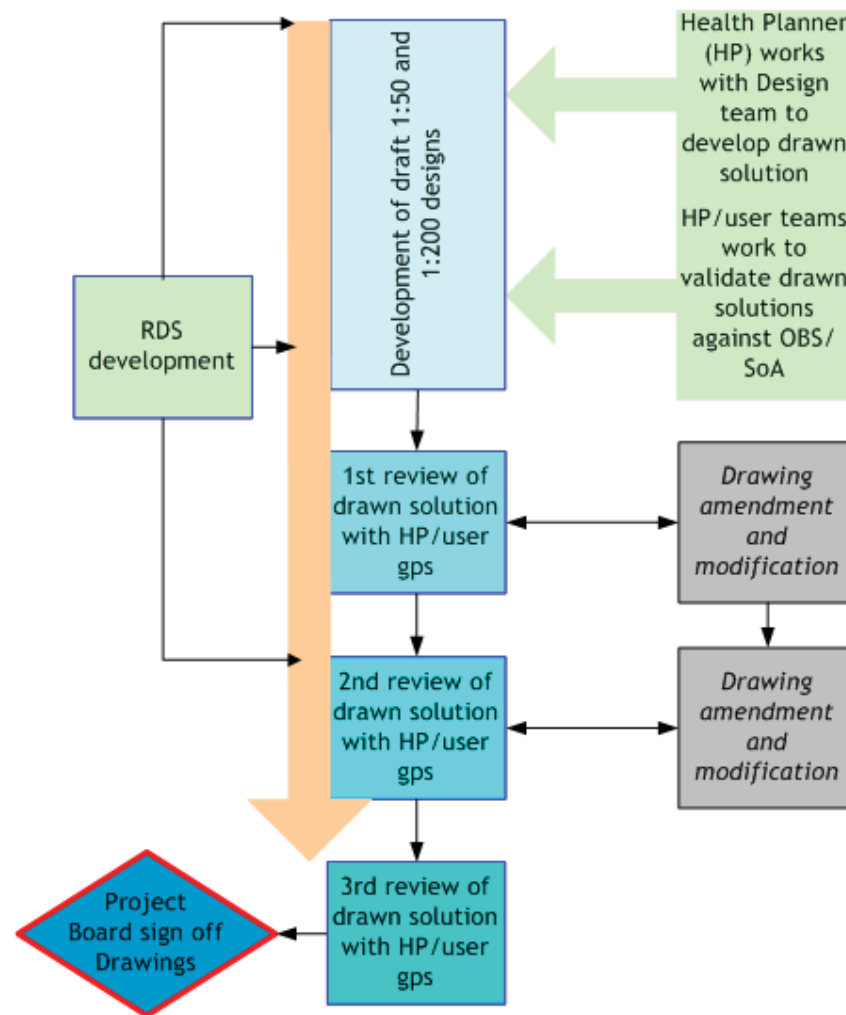


5.2.5 Phase 3: Development of 1:200 plans

346. Once approved, OBS and Schedule of Accommodation will be formally offered to the Project Manager to allow the 1:200 processes to begin. It is assumed that a level of interaction with the Design Team will have already taken place to determine adjacencies and building massing studies. The health planning input for this stage will be to both guide the design team through the specifications as they stand, to adjust and modify the specifications (if required) and to act as an advocate to the clinic process to ensure that the key aims and requirements of the model of care are not lost.
347. The precise process for the design development from this point onwards will be heavily influenced by the procurement route. For the purposes of this description, it is assumed that a non PFI/PPP approach will be pursued.
348. An initial briefing to the design team will be offered, highlighting the key clinical functions that the design needs to deliver. It is then assumed that draft 1:200 plans will be developed by the design team. Ideally these plans should be reviewed prior to being offered to the user teams for discussion and amendment.
349. As with the clinical specification process, a series of meetings with end users to shape the 1:200 plans is the norm, ideally on a three meeting basis. Once generic user agreement to the 1:200 plans has been obtained, formal design solution approval can be sought.
350. It is assumed that the design team will be engaged to consider the OBS as the basis for the brief for the scheme, with the Schedule of Accommodation merely being the manifestation of the functional content in area terms.
351. Development at 1:50 "room loaded" or equivalent will be necessary to obtain a fully functional design.
352. This phase will require the project team, as well as lead representative from the end user groups working with the Health Planner and Design Team to approve the specifications so far developed and working up the 1:200 plans into approved 1:200 loaded design solutions (1:50 loaded plans if so required). As part of the 1:200 development processes, it will be necessary to develop selected room layouts at 1:50, to prove that these rooms work from a clinical functionality basis, i.e. the room can accommodate the required equipment and provide the correct level of circulation and functional space etc.
353. It is therefore considered essential that, as a minimum, a robust equipment list is available to enable drawings at an appropriate scale to be loaded.

354. The following flow chart details the proposed 1:200 development process

Figure 5.5: Proposed 1:200 development process



5.2.6 Sub Phase: Room Data Sheet production.

355. The production of Room Data Sheets (RDS) can be of major assistance to any health project, provided that the RDS process is executed at the correct stage.

356. It is suggested that the RDS production, through the Design Team, be generated immediately after the OBS are signed off. The clinical specifications are therefore used to define room functionality and user engagement to assist in the compilation of equipment lists. If this process is adopted, the equipment purchasers will both know at an early stage if their assumed budgets are robust and be able to commence the process of operational

commissioning at a far earlier stage. It will also have the added benefit of clarifying room areas; In other words if equipment lists are generated in line with the Schedule of Accommodation (or just slightly later) bespoke rooms can be validated via selected 1:50 drawings and so prove to potentially sceptical end users that the overall design does indeed work.

5.3 Gateway review arrangements

357. The overall project will be divided into key stages in line with the Office of Government Procurement best practice model and Gateway review and assurance process. Such an approach forms an integral part of the 5 case model approach which is mandated for all programmes and projects within England (by OGC); Wales (by the Welsh Assembly Government); Scotland (by the Scottish Parliament) and Northern Ireland (by the Northern Ireland Assembly). The phases inherent within the business case process are outlined below.

5.3.1 Phase 0: determining the strategic context

358. This is part of the business planning stage, where the position of the proposed project is determined in relation to the overall strategy and/or programme. The White Paper clearly demonstrated the interaction of the specific project to redevelop the Existing General Hospital with the overall strategic objectives contained within the White paper.
359. This phase maps onto the OGC Gateway 0: strategic fit.
360. The preparation of the Strategic Outline Case (SOC) was developed as a result of this as the definition of the project in relation to the programme and overarching strategy was considered both clear and certain.

5.3.2 Phase 1: preparing the Strategic Outline Case (SOC)

361. This is the scoping stage of the investment.
362. The purpose of the Strategic Outline Case is to confirm the strategic context of the investment; to make a robust case for change; and to provide stakeholders and customers with a clear indication of the proposed way forward (the OBC will then respond to the development of a clear strategy in terms of the clinical options to be developed, based on the preferred site option determined as part of the production of the SOC).
363. This phase maps onto OGC Gateway 1: business justification.

5.3.3 Phase 2 - preparing the Outline Business Case (OBC)

364. This is the detailed planning phase of the investment.
365. The purpose of the OBC is to revisit the Strategic Outline Case in more detail and to identify the preferred option which demonstrably optimises value for money. It also sets

out the likely deal; demonstrates its affordability; and details the supporting procurement strategy, together with management arrangements for the successful rollout of the scheme.

366. This phase maps onto OGC Gateway 2: procurement strategy.

367. The project moves into its procurement phase following approval to proceed.

5.3.4 Phase 3: preparing the Full Business Case (FBC)

368. This takes place within the procurement phase of the project, following detailed negotiations with potential service providers/suppliers prior to the formal signing of contracts and the procurement of goods and services.

369. The purpose of the FBC is to revisit the OBC and record the findings of the subsequent procurement. It also sets out the recommendation for an affordable solution which continues to optimise VFM, and includes detailed arrangements for the successful delivery of goods and implementation of services from the recommended supplier.

370. This phase maps onto OGC Gateway 3: investment decision.

5.3.5 Following FBC approval

371. Following FBC approval it is important to note that the business case continues to play a major role in the life span of the project. This includes:

- internal and external audit
- operational management - operational readiness - Gateway 4: Readiness for Service
- post project evaluation and the risk management register - Gateway 5: Benefits Realisation - the benefits register
- Public Records and Freedom of Information.

5.4 Jersey General Hospital: Condition and development potential of existing buildings

**The States of Jersey
Hospital Pre-feasibility
Spatial Assessment Project**

**Jersey General Hospital:
Condition and development
potential of existing buildings**

Version 04; 24th April 2013

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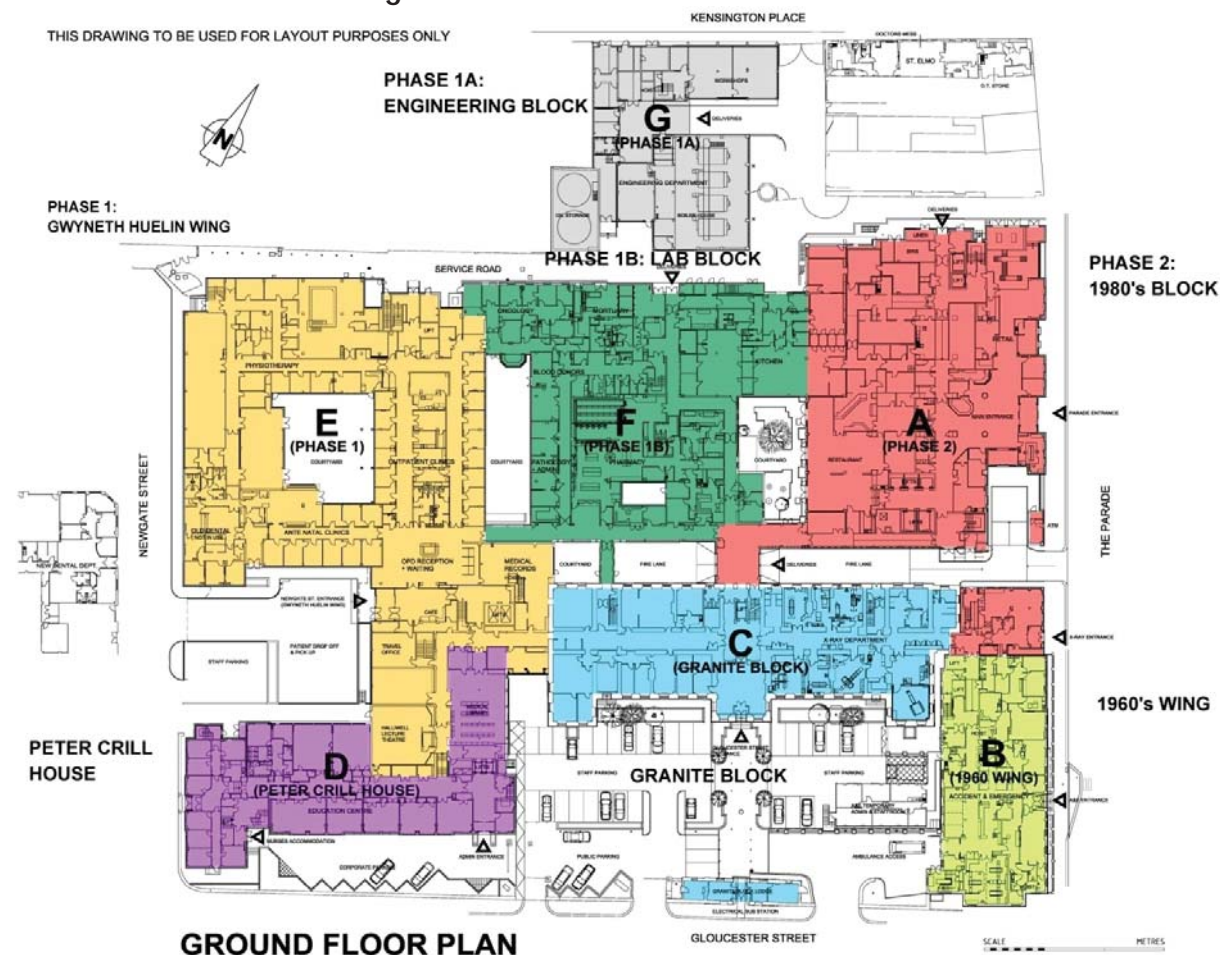
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1. Introduction

01. This report is compiled in response to a request by the States of Jersey to confirm *“the extent to which refurbishment of each individual block within the existing hospital can be meaningfully undertaken and the likely impact on cost, risk and benefits (in particular clinical functionality)”*.
02. This paper addresses the difficulties inherent in refurbishing and/or extending the existing buildings to create the required increase not only in overall hospital building area from approximately 38,800m² to 63,700m² but also in increasing individual room sizes to meet current spatial and operational standards. In addition, this paper also addresses the constraints imposed by the proposed phasing of the redevelopment of the hospital and the implications this has on the existing building stock.
03. The assessment of the condition of the existing buildings has been based on discussions and a review of the existing building stock with Andrew McLaughlin, the managing director of the hospital at that time, David Ahier, the local senior project manager of the hospital’s estate management service and upon an asset management property appraisal survey carried out in 2008 which assesses the condition of the estate based on three elements: buildings (internal and external), mechanical systems and electrical systems and which was provided to Atkins in July 2012.

2. Individual buildings



04. The existing General Hospital is composed of a number of separate, but inter-connected, buildings / wings as identified on the key plan above and in the table below:

Building / Block name	Approximate date of construction	Accommodation - Departments
Granite Block (Listed)	1863	Storage, X-Ray, Rayner (10 beds) and Emergency Assessment Unit (26 beds) Wards and OPD, Bartlett Ward (14 beds + 5 isolation), Aubin Ward (2 Endoscopy Suite + 12 beds), Department of Anaesthesia, Administration, plant rooms.

Building / Block name	Approximate date of construction	Accommodation - Departments
Porters' Lodge (Listed)	1863	Electrical Sub-station
1960s' Wing	1960s	Basement Plant Rooms, Radio Lions, Emergency Department, Operating Theatres, Intensive Care Unit, (Mammography, Dermatology & Assisted Reproduction Unit to be relocated 2013 to allow Oncology to occupy third floor), Robin (Paediatric - 15 beds) Ward.
Phase 1: Gwyneth Huelin Wing	1978	Basement Plant Rooms, Medical Records, Newgate Street Entrance, Cafe, Out-Patient Clinics, Ante Natal Clinics, Physiotherapy, Clinical Investigations, Day Surgery, ENT, Audiology, Eye Department, Dermatology, Renal Dialysis.
Phase 1A: Engineering Block	1980	Engineering department, Energy Centre.
Phase 1B: Kitchen, Pathology, Pharmacy	1983	Mortuary, Oncology (moving to 1960s' wing in 2014), Pathology, Pharmacy, Kitchen.
Phase 2: Parade high rise block	1987	Main Entrance, Restaurant, Retail, Stores/Deliveries, Emergency Department Entrance, Maternity, Operating Theatres, Occupational. Therapy, Assorted Wards (2 nd to 7 th Floors) approx. 142 beds.
Peter Crill House	1949; Link to Gwyneth Huelin - 2007	Education Centre, Medical Secretaries, Bedsits, HR, ICT, Medical & Surgical Directorate, Finance, Corporate Administration

05. As noted above, the buildings vary greatly in age and in the number of floors that each contain. There has been a continuous on-going programme of localised upgrading of parts of the buildings or of individual departments or wards to improve the standard of these facilities; however, such upgrading is compromised in many cases by working within the physical constraints imposed by the type and location of structural elements, sizes of existing rooms, contained areas of departments and limited floor-to-floor heights of individual buildings.

3. Floor heights and floor area

06. As identified in the table below, the existing floor-to-floor heights are less, and in some cases substantially less, than the preferred minimum floor-to-floor height for clinical departments which, for general departments such as out-patients and wards, is 4500mm and for highly serviced departments such as operating theatres and critical care is 5000mm. Consequently, the potential for altering and/or refurbishing the existing buildings to provide clinical facilities which meet current standards is greatly restricted.

Building / Block name	Approx floor area (m ²)	No. of Floors	Approximate Floor-to-floor heights								
			B to G	G to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8
Granite Block (Listed)	4784	4 floors	3520	5540	5740	4720					
Porters' Lodge (Listed)	63	Single floor									
1960s' Wing	4028	5 floors + roof plant room	3520	5131	4140	3023	3023				
Phase 1: Gwyneth Huelin Wing	9354	4 floors + roof plant room	3520	4220	4010	3050					
Gwyneth Huelin Link with Peter Crill House - Transition building to match adjacent floor levels		Varies	3520	4680	3550	3050					
			3520	2830	2710	2690	3050				
Phase 1A: Engineering Block	1541	3 floors									
Phase 1B: Kitchen, Pathology, Pharmacy	3194	2 floors + roof plant room		4220							

Building / Block name	Approx floor area (m ²)	No. of Floors	Approximate Floor-to-floor heights								
			B to G	G to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8
Phase 2: Parade high rise block	11472	8 floors + plant floor		5515	4140	3600	3600	3600	3600	3600	3600
Peter Crill House	4121	Part 4, part 5, part 6 floors.	3520	2830	3050	3050					

07. The differences in the floor levels between the different buildings and the consequent difficulties in providing the necessary functional inter-connectivity between these buildings, severely restricts staff, patient and FM movement around the hospital and limits the potential for horizontal evacuation of patients in an emergency.

08. The approximate area of accommodation available on each floor of each building is as noted in the table below:

Building Name	Approximate Building Area per Floor											
	Total	B	G	M	1	2	3	4	5	6	7	8
Granite Block	4784	449	1248	205	1248	1248	386					
Porters' Lodge	63		63									
1960s' Wing	4028	701	701		710	609	603	603	101			
Phase 1 - Gwyneth Huelin Wing	9354	1462	2579		1894	1680	1331	408				
Phase 1a - Engineering Block	1541		792		516	233						
Phase 1b - Kitchen, Path., Pharm.	3194		1986		1020	188						
Phase 2 – Parade high Rise Block	11472		2017	296	2432	1204	935	935	935	935	933	850
Peter Crill House	4121		1293		638	638	638	638	234	42		
Totals	38557	2612	10689	501	8458	5800	3893	2584	1270	977	933	850

4. Building condition

09. Discussions with senior management and hospital estates' personnel in conjunction with a review of an asset management property appraisal survey carried out by external consultants in 2008 has enabled an assessment of the condition of the existing buildings to be made. The property appraisal survey was based upon local statutes and building bye-laws and, where there was no local statute, to the standard of the relevant UK statute. Statutory compliance for items including electrical installations, gas supplies, means of escape, etc., was based upon relevant statutes and codes appertaining to the various compliance areas. The condition of each element within the individual hospital buildings was assessed on a scale of 'A' (being the best condition) to 'D' to produce a ranking of the physical condition of the various elements of each building.

From the extent and grading of maintenance and replacement work to the building fabric, finishes and building services identified in the property appraisal survey, a general condition assessment has been added to each of the buildings identified below.

4.1 Granite Block

- Floor area: 4784m²
- Number of floors: 4
- Date of Construction: 1863 – approximately 150 years old ‘Victorian’ hospital building
- Structure: load-bearing masonry.
- Fabric: Generally ‘C’ and ‘D’: The roof is in need of significant repair. Gutters leak. External stonework walls require major re-pointing – water penetration to the west facade. Timber windows require, at least, to be repaired, but many need to be replaced. Backlog maintenance valued at approximately £1.7 million for the external fabric.
- Building Services: Electrical system: generally ‘C’; Heating system: main plant – ‘C’, piping and heat emitters – ‘B’; Ventilation and air conditioning – ‘B’; Communications and alarm systems: generally ‘C’; Hot and Cold Water mains – ‘B’; Lifts – ‘C’.
- Fire Safety: generally ‘D’ and ‘C’ – requires upgrading of fire compartmentation, fire stopping, doors, additional alarm, emergency lighting coverage and fire signs.
- Health and Safety: Generally ‘C’.
- Suitability for Clinical Use: It currently provides clinical and administrative support accommodation which has been subject to alterations and upgrading over the life of the building.
- Suitability for Modification: Due to its massive masonry load-bearing structure, it is extremely difficult to alter and modify the sizes and shapes of the individual rooms. Due to its higher floor-to-floor heights, it has restricted connections with the remainder of the hospital. It has direct basement, ground and first floor links to the adjacent Gwyneth Heulin link building; direct ground and first floor links with indirect links via stairs and lifts on the second and third floors to the adjacent 1960s’ wing, and ground floor link only to the main area of the hospital. This restricted interconnection potential reduces its clinical operational efficiency where patients require to visit or be transferred to other departments located in other buildings.

4.2 Porters’ Lodge

- Floor area: 63m²
- Number of floors: 1
- Date of Construction: 1863
- Structure: load-bearing masonry.
- Fabric: Generally ‘B’ and ‘C’ standard.
- Building Services: Currently houses an electricity sub-station
- Suitability for Clinical Use: None. This building was designed as an entrance lodge for the original hospital and stands alone, separated from the remainder of the hospital. It has four rooms laid out in a linear fashion with a central pass-through

entrance corridor giving access to the hospital grounds beyond. It has no operational value other than its current converted use as an electrical sub-station.

- **Suitability for Modification:** Due to its massive masonry load-bearing structure, and the layout of the four rooms bisected by a central through access route, it is extremely difficult to alter and modify the sizes and shapes of the individual rooms.

4.3 1960s' Wing

- **Floor area:** 4028m²
- **Number of floors:** 5 + roof plant
- **Date of Construction:** 1960s
- **Structure:** Steel frame with precast concrete floor planks
- **Fabric:** Some 'B'; generally 'C' and 'D': Asbestos present throughout this wing - requires to be removed whenever any Modification / alterations carried out.
- **Building Services:** The mechanical and electrical services are at the end of their operational life and require to be replaced.
- **Fire Safety:** generally 'D' and 'C' - requires upgrading of fire compartmentation, doors, additional alarm, emergency lighting coverage and fire signs.
- **Health and Safety:** access protection - 'C' with some 'D'.
- **Suitability for Clinical Use:** The floor-to-floor height in the upper floors (at 3025mm) is very restrictive - barely acceptable for office accommodation and not for current clinical use.
- **Suitability for Modification:** The achievable structural floor loading is borderline for current healthcare use.

4.4 Phase 1: Gwyneth Huelin Wing

- **Floor area:** 8998m²
- **Number of floors:** 4
- **Date of Construction:** 1978
- **Structure:** reinforced concrete frame
- **Fabric:** Some 'B', generally 'C' and 'D': external construction fabric is poor - single glazed windows, poor thermal U-values. The single storey element of this wing is in poor condition - lightweight construction with a flat roof which requires to be replaced.
- **Building Services:** Electrical system: generally 'C'; Heating system: main plant - 'C', piping and heat emitters - 'B'; Ventilation and air conditioning - 'B'; Communications and alarm systems: generally 'C'; Hot and Cold Water mains- 'B'; Lifts - 'C'.
- **Suitability for Clinical Use:** Floor-to-floor heights are reasonable but less than would currently be provided for healthcare use which may restrict potential and extent of building services' installations that can be provided.

- **Suitability for Modification:** No worth or potential for expansion of existing building either horizontally or vertically. Potentially could be altered but external construction fabric is poor – if retained and altered, it would require complete new re-cladding of external walls and roof to provide acceptable thermal properties and acceptable anticipated life cycle.

4.5 Phase 1: Gwyneth Huelin Link Building (with Peter Crill House)

- **Floor area:** included above
- **Number of floors:** Varies as this block forms a transition between the number and level of the floors in the Gwyneth Huelin wing and those in the Peter Crill House.
- **Date of Construction:** 2007
- **Structure:** Steel frame.
- **Fabric:** Relative new (2007) building link in good condition
- **Building Services:**
- **Suitability for Clinical Use:** as it forms a transitional link between the differing floor levels of the adjoining Gwyneth Huelin Wing and Peter Crill House, has very limited potential of being retained in its own right.
- **Suitability for Modification:** As this building acts as a transitional link between, predominantly, the Gwyneth Huelin Building and Peter Crill House but, also, with the Granite Block, its purpose is to resolve the vastly different floor-to-floor heights in these buildings and provide horizontal links between each. However, this results in the insertion of transitional stairs and ramps and imposed restricted floor-to-floor heights which will not provide an efficient, functional use if this building was to be considered on its own.

4.6 Phase 1A: Engineering Block

- **Floor area:** 1541m²
- **Number of floors:** 3
- **Date of Construction:** 1980
- **Structure:** reinforced concrete frame
- **Fabric:** some 'B', but generally 'C' and 'D': windows and roof to be replaced shortly.
- **Building Services:** Electrical system: lighting – 'B', fixed plant – 'C'; Heating system: main plant – 'C' – requires major replacement with plans to replace major plant on a phased basis; Communications and alarm systems: generally 'C'; Hot and Cold Water mains – 'B'.
- **Fire Safety:** Some 'C', but generally 'D': requires upgrading of fire compartmentation, fire stopping, doors, additional alarm, emergency lighting coverage and fire signs.
- **Health and Safety:** generally 'C', some 'D'.

- **Suitability for Clinical Use:** This building was designed as the main energy centre for the hospital with large mechanical plant, workshops and associated offices - it is not suitable for any other use.
- **Suitability for Modification:** The existing location of this building severely restricts the potential for developing new clinical accommodation along Kensington Place.

4.7 Phase 1B: Kitchen / Pathology / Pharmacy

- **Floor area:** 3194m²
- **Number of floors:** 2.
- **Date of Construction:** 1983.
- **Structure:** reinforced concrete frame.
- **Fabric:** Some 'B', generally 'C' and 'D'. Ground floor construction damp - probably no, or at least fractured, ground damp proofing.
- **Building Services:** Electrical system: generally 'C'; Heating system: main plant - 'C', with some plant now requiring to be replaced; piping and heat emitters - 'B'; Ventilation and air conditioning - 'C'; Communications and alarm systems: generally 'C'; Hot and Cold Water mains- 'B'; Lifts - 'C'.
- **Fire Safety:** generally 'D' and 'C' - requires upgrading of fire compartmentation, fire stopping, doors, additional alarm, emergency lighting coverage and fire signs.
- **Health and Safety:** Generally 'C' and 'D'.
- **Suitability for Clinical Use:** clinical links from this building to the rest of the hospital are not good. Tortuous deep-plan internal layout.
- **Suitability for Modification:** No potential to add floors to existing building structure. Alternative location would be required for the existing accommodation.

4.8 Phase 2: Parade high rise block

- **Floor area:** 11472m²
- **Number of floors:** 8
- **Date of Construction:** 1987
- **Structure:** reinforced concrete frame. Very thick floor construction which limits available height within any floor.
- **Fabric:** Some 'B', but generally 'C' and 'D'; fittings: some 'C', but generally 'D'. External wall and roof construction is poor - aluminium windows are in poor condition and are not rated for the exposure and require to be replaced; poor wall and roof thermal properties and performance - losing heat and energy.
- **Building Services:** Electrical system: generally 'C'; Heating system: main plant - 'C', piping and heat emitters - 'B'; Ventilation and air conditioning - 'C' (Ventilation not appropriate for wards); Communications and alarm systems: generally 'C'; Hot and Cold Water mains- 'B'; Lifts - 'C'.

- **Fire Safety:** generally 'D' - requires upgrading of fire compartmentation, fire stopping, doors, additional alarm, emergency lighting coverage and fire signs. Issues with 'high rise' risk and patient evacuation from upper floors as the fire brigade appliances cannot reach the upper floor.
- **Health and Safety:** Generally 'C', some 'D'.
- **Suitability for Clinical Use:** Only the top two floors of the building were designed exclusively for single bedrooms - these are below current space standards. All the other ward floors contain 6-bedded rooms which are inefficient to alter to form single bedrooms - only two single bedrooms can be obtained from each 6-bedded room.
- **Suitability for Modification:** After 25 years, requires major replacement of fabric, fittings and mechanical and electrical services. A fire fighting sprinkler system would be required to be installed for any major upgrade / alteration project as the Jersey fire brigade do not have the necessary equipment to fight fires on the top floors of this building. Lifts are not 'fire lifts' and cannot be used by the fire brigade in times of emergency.
- **Comments:** Building became operational in 1987 - after 25 years, requires major replacement of fabric, fittings and mechanical and electrical services.

4.9 Peter Crill House

- **Floor area:** 4121m²
- **Number of floors:** 4, 5 and 6 in parts
- **Date of Construction:** 1949
- **Structure:** reinforced concrete frame
- **Fabric:** Some 'B', generally 'C' and 'D'
- **Building Services:** Electrical system: generally 'B' and 'C'; Heating system: main plant - 'B'; Ventilation and air conditioning - 'B'; Communications and alarm systems: generally 'C'; Hot and Cold Water mains- 'B'; Lifts - 'B'.
- **Fire Safety:** Some 'C', generally 'D' - requires upgrading of fire doors, review of compartmentation, additional alarm, emergency lighting coverage and fire signs.
- **Health and Safety:** Generally 'C', some 'D'.
- **Suitability for Clinical Use:** low floor-to-floor heights - unsuitable for any use apart from low quality office space.
- **Suitability for Modification:** limiting ceiling heights makes modification of limited value.

10. Overall, it is our opinion that many of the buildings are in poor condition with major upgrades / replacement of the fabric, fittings lifts, and building mechanical and electrical services required in the near future. The thermal properties of the masonry buildings are well below current standards and, consequently, the buildings are not energy efficient to current standards and expectations. A summary is included below confirming the current condition and expansion / refurbishment potential for each of the buildings identified above.

5. Expansion potential

11. The structure and construction of the individual buildings varies from substantial, thick masonry structural walls in the Granite Block to reinforced concrete frame in the Phase 2 high rise block. The structural limitations and performance of the existing buildings makes increasing available floor area by adding further floors of accommodation to any of these buildings impractical.
12. Approximately 24,900m² of additional accommodation is required to increase the size of the hospital from approximately 38,700m² contained within the existing buildings to the projected future area requirement of approximately 63,600m² to meet current operational standards and future demand
13. The hospital is located on part of a town block within St. Helier and its site is bordered on all sides by roads or adjacent buildings which prevent any further expansion of the existing site area without the purchase of adjacent properties. In addition, the existing buildings virtually cover the entire available site area, thus removing any opportunities for the expansion of any of the individual buildings onto adjacent open ground within the site.
14. As there is not any available free external ground area to build on within the hospital site, (with the exception of the car park area in front of the Granite Block which is required for interim transitional capacity buildings), and limited appropriate area outwith the site which could be purchased, the bulk of the additional building area required has to be constructed within the grounds of the existing hospital. Consequently, as the existing buildings cannot be readily extended and are in poor condition, they need to be replaced.
15. As there are no alternative acute hospitals in Jersey to provide temporary alternative clinical services to allow the existing hospital site to be freely redeveloped, the existing hospital must remain operational throughout any redevelopment programme. This in turn imposes further constraints on how any future redevelopment can be carried out safely, and these are noted in the following section.

6. Phasing strategy and implications

16. There is virtually no free open ground within the current boundaries of the hospital site on which to build any extension to the existing buildings. Furthermore, there are no empty buildings within the site either which could be demolished to provide vacant ground for a new building or to be used to decant temporarily any facilities from any of the other buildings on the site to allow them in turn to be altered and/or refurbished. The only area of open ground within the hospital boundaries which is available is the car park and ambulance entrance area in front of the Granite Block. This area, however, is required as a site for additional temporary transitional clinical facilities to meet urgent operational requirements, for example additional in-patient beds and, perhaps, operating theatre facilities, whilst new replacement facilities are procured.

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17. Consequently, the future expansion and replacement of the existing hospital facilities can only be achieved by either removing some facilities off-site temporarily to create such an empty building or to purchase adjacent properties which can then be demolished to thus create additional site area on which new buildings can be constructed.
 18. In an acute hospital there is a close inter-dependency between clinical and support departments requiring close connections for efficient and safe movement of patients, staff and FM goods around the hospital. Consequently, there are few whole hospital departments which can be removed off-site without affecting the operational efficiency of the hospital and, potentially, the health and safety of the patients.
 19. Only certain non-clinical facilities, for example administration and education, can, temporarily, be moved off-site without significantly affecting the effective operation of the hospital; although the removal of these will increase the time that clinical staff may be off-site attending meetings or lectures thus, in itself, leading to productive inefficiencies.
 20. At the Jersey General Hospital, administration and education is located within Peter Crill House, and this is the only building which can readily be emptied to provide space for future development. However, due to the restriction in the floor-to-floor heights within the building, the limited area of the building and its general condition, this building is not suitable for alteration into clinical use and, consequently, should be demolished.
 21. The first phase of the redevelopment of the existing hospital must accommodate the following:
 - All accommodation from within any building(s), including any transitional buildings, on the area of the site to be developed in the next following phase of the redevelopment to allow those existing buildings to be emptied prior to alteration, removal or demolition. This principle applies to all phases.
 - An increase in bed numbers to overcome, as a minimum, the current shortage until further beds can be built in subsequent phases;
 - In-patient beds located only on upper floors (from level 3 up) of any building fronting one of the surrounding roads to overcome privacy issues arising from passing pedestrians and vehicle traffic and the close proximity of opposing properties on the opposite sides of narrow streets;
 22. The subsequent phases of the redevelopment prior to the final phase must accommodate the following:
 - The remaining complement of in-patient beds to allow the existing wards with 6-bedded rooms in the Parade high rise building to be closed;
 - All accommodation from within any building(s) on the area of the site to be developed in the next following phase of the redevelopment to allow those existing buildings to be emptied prior to alteration or demolition.

23. The final phase of the redevelopment process will re-provide any accommodation located temporarily off-site at the commencement of any of the earlier phases, along with forming the final connections between all phases. Consequently, the final phase cannot accommodate any clinical accommodation unless it is being relocated into this phase from a building which will then subsequently be demolished, or unless it is new clinical accommodation currently not provided within the hospital.
24. Any long-term proposed development of the external open ground in front of the Granite Building can only commence after the temporary transitional wards, currently proposed to be located on the car park in front of the Granite Building are removed following construction of the first phase of the redevelopment described above.

7. Conclusions

25. A complete redesign and increase in the size of the existing General Hospital is required, not only to meet the future acute clinical needs of the growing population of Jersey, but also to address the increase in space standards required to meet current best clinical, spatial and operational practices.
26. From the condition survey of the buildings and associated mechanical and electrical services carried out in 2008, it can be seen that, generally, the overall condition of the Hospital is assessed as a condition 'C' signifying that it is operational but with major repairs or replacement being needed. Many local, specific aspects were assessed at that time as a condition 'D' implying a serious risk of imminent breakdown or of non-compliance with statutory requirements, although remedial/replacement work may have been carried out during the intervening period to overcome these issues.
27. The continued use of the current building stock will, in nearly all aspects, require significant refurbishment costs to address structural, construction and building services' infrastructure issues whilst at the same time not addressing the inherent space, clinical flow and adjacency issues. As the main engineering plant for the mechanical and electrical building services installations in most of the buildings have been assessed as a condition 'C', they are near or at the end of their operational life and, therefore, these installations require widespread replacement rather than localised upgrading.
28. The structure and construction of the individual buildings varies from substantial, thick masonry load-bearing structural walls in the Granite Block to reinforced concrete frame in the Phase 2 high rise block. The structural limitations and performance of the existing buildings makes increasing available floor area by adding further floors of accommodation to any of these buildings impractical.
29. The thermal properties of the construction of the external walls and roofs of the existing buildings fall substantially below current requirements making these buildings very energy wasteful. To resolve these issues by providing energy efficient buildings would entail widespread and expensive over-cladding / replacement of external walls and roofs.

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30. As a consequence of the significant extent of alteration and remedial replacement work to the fabric and building services which would be necessary to any of the existing buildings in an attempt to reach current-day standards, this work could only be carried out efficiently if the whole of the building was not in use and was empty, with the existing clinical facilities decanted elsewhere. The intensive space utilisation of the existing accommodation eliminates any spare capacity which could be used for such decanting and, therefore, such free space for decanting purposes can only be obtained either by removing some facilities totally off-site or by purchasing additional adjacent properties to increase the area of the hospital site to construct new, additional clinical buildings.
31. The density of the development which has taken place on the General Hospital site over the past 150 years and the limitations arising from existing floor plan layouts impose significant impediments to the creation of recommended clinical adjacencies and safe and efficient working practices. In addition, the density of the existing development inhibits the potential creation of quality clinical and amenity spaces throughout the hospital which are expected as standard in current healthcare developments to promote the well-being of patients and staff within the hospital. There are extensive evidence-based design findings which demonstrate how the quality of the physical and aesthetic environment plays a major role in improving clinical outcomes and reducing the period of time patients require to remain in an acute hospital setting by speeding up the psychological recuperation process.
32. Should it be considered necessary to retain any of the existing buildings, we recommend that the full six-facet land and property appraisal survey in accordance with HBN 00-08 is commissioned to establish in detail the quality and condition of the existing building(s) and the remedial / alteration work required to attain current standards so that a cost value comparison against a new-build option could be undertaken. The six facets that would be considered are physical condition, functional suitability, space utilisation, quality, fire and health and safety requirements, and environmental management.
33. In Atkins' opinion, the alteration and refurbishment of the existing buildings will never, as a consequence of the inherent condition and compromises in space and clinical adjacencies, allow the same level of benefits to be secured as would be possible in a comprehensive planned and phased redevelopment and replacement of the existing hospital buildings and site. Should the States of Jersey's requirements change and such a redevelopment strategy be deemed necessary, alternative, more detailed design proposals and costing estimates would need to be established and evaluated to identify the compromises which are likely to arise from such a development proposal.

Hospital Pre-Feasibility Spatial Assessment Project

Jersey General Hospital:

Condition and development potential of existing buildings:

Version 04

Date: 24th April 2013



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