
**JERSEY FUTURE HOSPITAL
CO004 – SITE OPTION REPORT**

**APPENDIX 8 Functional
Area Estimates**

QUALITY ASSURANCE

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Position: Director

Spatial Planning Principles and use of this Functional Area Estimate [FAE]

This schedule has been prepared to establish target design areas for all site options being revalidated under Change Request 004. Its development follows the principles set out within UK Department of Health Guidance entitled - Health Premises Cost Guides [Second Edition] HPCG's and draws upon Gleeds wider industry expertise where this is required.

Basis of Spatial Planning Calculations

The area required to deliver both single and dual site hospital options has been developed by Gleeds Health Planners by following best practice hospital planning processes. The current hospitals activity data has been used to extrapolate the recommended departmental area from published UK hospital planning guidance. Beyond this, where relevant guidance is not published, departmental sizes have been developed from their experience of delivering similar acute hospitals in the UK and informed by their Acute Service planning work with HSSD personnel.

The area required has also been further tested by activity forecasting completed by EY which has verified the initial bed planning principles adopted by Gleeds Health Planners

The derived target departmental areas also reflect the following:

- 1 The spatial impact of emerging Service Delivery plans being prepared concurrently under Change Request 003 where available;
- 2 A generally applied 15% target to all functional space and, through the application of later allowances, a comparable reduction to plant and communication spaces;

Schedule Structure

The schedule has been designed to allow as much departmental level comparison as possible with both current hospital areas and those established for departments in the SOC Refined Concept proposal. This has been achieved by setting the data out in vertical blocks relating to the 'existing site', the 'SOC Refined Concept proposal', the 'Gleeds target areas' and finally the 'Gleeds As Drawn areas for each department'

In accordance with the project brief all comparable data has been extracted from the Strategic Outline Case and the Refined Concept Addendum dated 3rd October 2013. Despite this, differences between this and previous approaches are inevitable and should be borne in mind in the use of this schedule

The vertical blocks are -

- 1 Columns A to F set out each function as they are known to exist within the current hospital;
- 2 Columns H to M set out the spatial proposals for the Refined Dual Site Concept scheme. This has been extracted from the Refined Concept Addendum date 3rd October 2013 and defines both the functional areas being redeveloped / retained/ removed and the overall area delivered under that proposal;
- 3 Columns O to AC set out the functional area targets developed by Gleeds. These are based upon Nett Internal Area [NIA] assessment established by Health planners based upon HPCG / HBN guidance and modified to reflect the spatial impacts of Acute Service Plans where these are clear and understood. This block also identifies the effect of the 15% reduction target required by the Project Brief as applied to each functional department, communication and plant space.

Calculating the Net Internal Area and Reduced Net Internal Area

Column 'O'	NIA - This is the Net Internal Area arrived at by Health planners and equates to the NIA defined with the HPCG Guides;
Column 'P'	CIRC - this is the area defined for circulation, planning, departmental plant and communication allowance associated with this area and identified in HPCG. In all cases 10% of the allowance has been removed to be reapplied as global communication allowance later in the
Column 'Q'	Total sum of the Net Internal Area for each department in column 'O' and the remaining circulation, planning and departmental plant allowance in column 'P'
Column's 'R' 'S' 'T' & 'U'	These columns set out the application of the 15% reduction to NIA and the circulation, planning, departmental plant allowance. The new combined departmental area total is confirmed in 'U'
Columns 'W' to 'AC'	These reflect a the application of the above to Overdale
Cell 'AC89'	Functional Area to achieve 15% target - This is the aggregate total of the dual site NIA and associated circulation, planning, departmental plant allowance for all departments
Cell 'AC91'	Communication based on HPCG -15% area - this reapplies the communication allowance initially removed under 'column 'P' above which being now applied to an NIA that is 15% lower is also 15% lower that HPCG guidance;

Application of Engineering allowance

The HPCG engineering allowances for each function vary between 15% - 40%. To maintain downward pressure on area these have not been applied by function. Instead a reduced global allowance of 12%, reflective of derogations, has been applied. It should be noted that the 'mean' calculated allowance for the functions involved is currently 27%.

Cell 'AC96'	Engineering based on HPCG -15% area - this is the engineering area to be added to the area in 'AC91' and 'AC93' to arrive at the total aggregate target area for the option
Cell 'AC97'	Total Area to achieve 15% HPCG reduction - this is the aggregate of the NIA and circulation in 'AC91', the Aggregate communication allowance in 'AC93' and the engineering allowance in 'AC96'
Cell 'AC99'	Retained Existing Functional Area - this is the area identified within the existing hospital that will be retained and not altered. It has been included in the Gleeds target to maintain consistency between the Gleeds 'as drawn' data and the SOC Refined Concept solution. It refers largely to Peter Crill House, Education and some basement areas
Cell 'AC100'	Open Plant Area - this is space for open air plant that will not contribute to build area. However it is included to maintain consistency between Gleeds 'as drawn' data and the SOC Refined Concept solution. It refers largely to Peter Krill House, Education and some basement areas
Cell 'AC101'	Target Total Concept Area - this is the sum total of the NIA in Cell 'AC91', the aggregate communication allowance in Cell 'AC93'

FUNCTIONAL AREA SUMMARY

EXISTING HOSPITAL FUNCTIONS		OPTION A - AS DRAWN - Refined Concept - HPCG - 15%							
Function or service		Jersey General Hospital					Overdale		
Zone	Department	Redundant space	New build	Refurb	Used Exist	Total	New build	Total	
						0			
Main entrance	Entrance					0			
	Amenities		500	640		1140	172	172	
	Visitor spaces					0			
Emergency zone	Emergency department		1600	811		2411			
	Minor Injuries Unit					0			
	Assessment/CDU		1130			1130			
	GP consult area					0			
	Acute Receiving Ward					0			
Staff Facilities	Central staff zone			1160		1160	678	678	
						0			
In-patient / Integrated Units	In-patient beds - adult acute general - public		5615	6051		11666			
						0			
	In-patient beds - adult acute general - private					0			
	Critical Care		500	530		1030			
	Wards Central core		690	520		1210			
	In-patient beds - mental health					0			
Women's & Children's	Women's Unit - Obstetric In-patient beds		355	715		1070			
	Women's Unit - Labour suite			1360		1360			
	Women's & Children's Entrance			90		90			
	Neonatal unit		460			460			
	Women's Unit - ANC, EPS, U/S, day					0			
	Paediatric unit - inpatients					0			
	Paediatric unit - outpatient & day case					0	440	440	
							0		
Treatment & Diagnosis	Operating theatres - inpatient		3280	1190		4470			
	Operating theatres - day					0			
Radiology	Imaging department - radio diagnostic		1100			1100	678	678	
	Imaging department - CT					0			
	Imaging department - MRI					0			
	Imaging department - ultrasound					0			
	Imaging department - nuclear medicine					0			
Ambulatory Care	Entrance					0			
	Outpatients - general					0	4407	4407	
	Outpatients - gynaecology					0	465	465	
	Outpatients - dermatology					0			
	Outpatients - ophthalmology/ENT					0			
	Day Surgery					0			
	endoscopy unit					0			
	Medical day/ PIU					0			
	cardiac cath labs					0			
	Clinical (incl cardiac) investigations					0			
	oncology - chemotherapy					0	508	508	
	oncology - radiotherapy					0			
	Renal Dialysis					0	828	828	
	Neurophysiology					0			
	Rehabilitation					0			
	Private Outpatients					0	521	521	
Clinical Support Facilities	mortuary and PM facilities		270			270			
	laboratories			1290		1290			
	blood transfusion facilities					0			
	pharmacy			141		141	1533	1533	
	Department of Anaesthetics				141	141			
administration and staff	offices - clinical and admin				4175	4175			
	ICT					0			
	Staff changing					0			
	education and teaching centre				2192	2192			
	research facilities - library etc.					0			
	research facilities - laboratories					0			
Other Support Facilities	Allowance for planning new site					0			
	Kitchen and staff dining					0			
Facilities Management	materials management - deliveries		131	220		351			
	materials management - stores					0			
	materials management - waste etc.					0			
	Linen management					0			
	Laundry					0			
	Sterile services, instrument re-processing					0			
	Cleaning & portering					0			
	Technical and maintenance					0			
	offices - building management				156	156			
	Staff accommodation				183	183			
	Chapel				142	142			
	Radio Lions				38	38			
	X-Ray store				60	60			
	Medical records				700	700			
	Open plant area				376	376			
	Car park					0			
Undefined Concept Area						0			
Comms and Plant						0			
Energy centre(s)				792	790	1582	390	390	
Vacant/vold space - all levels		4350				0			
Total area of briefed departments, sq.m.		4,350	15,631	15,510	8,953	40,094	10,620	10,620	

Other Spaces			
Atrium		0	0
Streets - not in departments	inc below	inc below	inc below
FM routes	inc below	inc below	inc below
Stairs and Lifts (mid-rise)	inc below	inc below	inc below
Engineering	873	2140	0
Retained circulation	1260	738	3,547
Car Park	0	0	376
Storage	0	0	71
CIRCULATION & ENCLOSED PLANT	2,133	2,878	3,994
OPEN PLANT AREA	0	0	1,690
Total			10,695
			10,695

Overdale Overall Area	10,620
Total Proposed Area	61,409
Redundant / reusable space	4,350

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The area required has also been further tested by activity forecasting completed by EY which has verified the initial bed planning principles adopted by Gleeds Health Planners

The derived target departmental areas also reflect the following:

- 1 The spatial impact of emerging Service Delivery plans being prepared concurrently under Change Request 003 where available;
- 2 A generally applied 15% target to all functional space and, through the application of later allowances, a comparable reduction to plant and communication spaces;

Schedule Structure

The schedule has been designed to allow as much departmental level comparison as possible with the current hospital areas and those established by Gleeds to test the viability of each proposed site. This has been achieved by setting the data out in vertical blocks relating to the 'existing hospital site', the 'Gleeds target areas for single sites options' and finally the 'Gleeds As Drawn areas' for what has been achieved at each site.

In accordance with the project brief all comparable data has been extracted from the Strategic Outline Case and the Refined Concept Addendum dated 3rd October 2013. Despite this, differences between this and previous approaches are inevitable and should be borne in mind in the use of this schedule

The vertical blocks are -

- 1 Columns A to F set out each function as they are known to exist within the current hospital;
- 2 Columns 'I' to 'O' set out the functional area targets developed by Gleeds. These are based upon Nett Internal Area [NIA] assessments established by Health planners based upon HPCG / HBN guidance and modified to reflect the spatial impacts of Acute Service Plans where these are clear and understood. This block also identifies the effect of the 15% reduction target required by the Project Brief as applied to each functional department, communication and plant space.
- 3 Columns 'Q' to 'Y' set out the as drawn areas that have been achieved by the design team in endeavouring to achieve the best fit solutions for the target areas set out in [2] above at each of the sites being tested;

Calculating the Net Internal Area and Reduced Net Internal Area

Column 'I'	NIA - This is the Net Internal Area arrived at by Health planners and equates to the NIA defined with the HPCG Guides;
Column 'J'	CIRC - this is the area allowance defined for circulation, planning, departmental plant and communication allowance associated with this area as identified within HPCG. In all cases 10% of this allowance has been removed to be reapplied as a global communication allowance later in the calculation;
Column 'K'	Total sum of the Net Internal Area for each department in column 'O' and the remaining circulation, planning and departmental plant allowance in column 'P'
Column's 'L' 'M' 'N' & 'O'	These columns set out the application of the 15% reduction to NIA and the circulation, planning, departmental plant allowance. The new reduced total departmental area arising from this is confirmed in 'O'
Cell 'O92'	Functional Area to achieve 15% target - This is the aggregate total of the NIA and associated circulation, planning, departmental plant allowance for all departments
Cell 'O94'	Communication based on HPCG -15% area - this reapplies the communication allowance initially removed under 'column 'P' above which being now applied to an NIA that is 15% lower is also 15% lower that HPCG guidance;

Application of Engineering allowance

The HPCG engineering allowances for each function vary between 15% - 40%. To maintain downward pressure on area these have not been applied by function. Instead a reduced global allowance of 15%, reflective of derogations and the compliance obligations of new build facilities has been applied. It should be noted that the 'mean' calculated allowance for the functions involved is currently 27%.

Cell 'O97'	Engineering based on HPCG -15% area - this is the engineering area to be added to the area in 'O92' and 'O94' to arrive at the total aggregate target area for all options
Cell 'O99'	Total Area to achieve 15% HPCG reduction - this is the aggregate of the NIA and circulation in 'O92', the Aggregate communication allowance in 'O94' and the engineering allowance in 'O97'
Cell 'O101'	Retained Existing Functional Area - this is the area identified within the existing hospital that will be retained and not altered. It refers largely to Peter Crill House, and Education facilities at Jersey General
Cells 'S,V & Y' '92 - 101'	These indicate the equivalent 'As Drawn' achievements in endeavouring to deliver the target areas above at each of the site options

FUNCTIONAL AREA SUMMARY FOR SINGLE SITE

EXISTING HOSPITAL FUNCTIONS		AS DRAWN RESULTS FOR ALL SINGLE SITE OPTIONS								
Function or service		OPTION B - Overdale 100% new			OPTION C - Jersey General 100% new			OPTION D - Waterfront 100% New		
Zone	Department	New	Refurb	Total	New	Refurb	Total	New	Refurb	Total
Main entrance	Entrance									
	Amenities	1240		1240	1160		1160	1489		1489
	Visitor spaces			0			0			0
Emergency zone	Emergency department	1270		1270	1350		1350	1300		1300
	Minor Injuries Unit			0			0			0
	Assessment/CDU	780		780	830		830	840		840
	GP consult area			0			0			0
	Acute Receiving Ward			0			0			0
Staff Facilities	Central staff zone	1150		1150	0	1230	1230	1218		1218
In-patient / Integrated Units	In-patient beds - adult acute general - public	7513		7513	8111		8111	7680		7680
				0			0			0
	In-patient beds - adult acute general - private	1160		1160	1150		1150	1218		1218
	Critical Care	1250		1250	1520		1520	1291		1291
	Wards Central core	1800		1800	1160		1160	1800		1800
	In-patient beds - mental health			0			0			0
Women's & Children's	Women's Unit - Obstetric In-patient beds	920		920	880		880	1216		1216
	Women's Unit - Labour suite	980		980	1020		1020	1012		1012
	Women's & Children's Entrance	235		235		310	310	265		265
	Neonatal unit	650		650	870		870	633		633
	Women's Unit - ANC, EPS, U/S, day			0			0			0
	Paediatric unit - inpatients	1120		1120	1070		1070	1113		1113
	Paediatric unit - outpatient & day case	330		330		550	550	350		350
				0			0			0
Treatment & Diagnosis	Operating theatres - inpatient	3610		3610	3840		3840	3501		3501
	Operating theatres - day			0			0			0
Radiology	Imaging department - radio diagnostic	0		0			0	0		0
	Imaging department - CT			0			0			0
	Imaging department - MRI	1150		1150	1140		1140	1178		1178
	Imaging department - ultrasound			0			0			0
	Imaging department - nuclear medicine			0			0			0
Ambulatory Care	Entrance	0		0			0			0
	Outpatients - general	3500		3500	3020		3020	3255		3255
	Outpatients - gynaecology	350		350		370	370	550		550
	Outpatients - dermatology			0			0			0
	Outpatients - ophthalmology/ENT			0			0			0
	Day Surgery			0			0			0
	endoscopy unit			0			0			0
	Medical day/ PIU			0			0			0
	cardiac cath labs			0			0			0
	Clinical (incl cardiac) investigations			0			0			0
	oncology - chemotherapy	360		360	420		420	354		354
	oncology - radiotherapy			0			0			0
	Renal Dialysis	600		600	618		618	585		585
	Neurophysiology			0			0			0
	Rehabilitation			0			0			0
	Private Outpatients	400		400	440		440	353		353
Clinical Support Facilities	mortuary and PM facilities	260		260	210		210	255		255
	laboratories	1050		1050	1170		1170	1074		1074
	blood transfusion facilities			0			0			0
	pharmacy	1139		1139	1050		1050	1086		1086
	Department of Anaesthetics			0			0			0
administration and staff	offices - clinical and admin			0			0			0
	ICT			0			0			0
	Staff changing			0			0			0
	education and teaching centre	0		0	0		0			0
	research facilities - library etc.			0			0			0
	research facilities - laboratories			0			0			0
Other Support Facilities	Allowance for planning new site			0			0			0
	Kitchen and staff dining			0			0			0
Facilities Management	materials management - deliveries	2480		2480	2220		2220	2200		2200
	materials management - stores			0			0			0
	materials management - waste etc.			0			0			0
	Linen management			0			0			0
	Laundry			0			0			0
	Sterile services, instrument re-processing			0			0			0
	Cleaning & portering			0			0			0
	Technical and maintenance			0			0			0
	offices - building management			0			0			0
	Staff accommodation			0			0			0
	Chapel			0			0			0
	Radio Lions			0			0			0
	X-Ray store			0			0			0
	Medical records			0			0			0
	Open plant area									
	Car park									
Undefined Concept Area										
Comms and Plant										
Energy centre(s)		1300		1300	1300		1300	1180		1180
	Vacant/void space - all levels									
Total area existing departments m2		36597	0	36597	34549	2460	37009	36996	0	36996

As Drawn Outcomes

	36,597	37,009	36,996
Communication	6,590	5,390	6,581
	6,075	6,000	6,046
Total Area	49,262	48,399	49,623
	5,209	5,209	5,209