29th November 2012

Ms Megan Fu
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

By email: megan.fu@planning.nsw.gov.au

Dear Megan,

At our meeting yesterday the Department requested additional information about the schedule of areas and to provide explanations as to the various alternatives to the current location and size of the emergency department at St George Hospital. To that end, on behalf of Health Infrastructure I have set out below the information that was requested to demonstrate that there are no feasible alternatives to the current proposal and that all reasonable alternatives have been explored.

Determination of Need and Areas

In 2010 a Clinical Services Plan was developed by South East Sydney Local Health district, identifying a need for 20 additional treatment spaces for the Emergency Department to meet the 2015/2016 predicted additional presentations.

Triage category	2009/10	*2010/11*	*2015/16*
T1	647	*628*	*801*
T2	6281	*7535*	*9616*
T3	20937	*23860*	*30452*
T4	27403	*27627*	*35260*
T5	4145	*3139*	*4007*
Presentations	**59799**	***62789***	***80136***

Based on these additional treatment spaces, a Schedule of Accommodation was prepared by HPI Architects in accordance with Australian Health Facility Guidelines (a table of areas is attached as a spreadsheet). The total area required for the entire Emergency Department to accommodate this future demand was calculated to be 4,969m^2.

Urban Planning Outcomes Pty Ltd
ACN 67 089 645 661

PO Box 6101, Malabar, NSW 2036
P 9661 8019 **E** leone@upoutcomes.com.au

A summary of the number of treatment spaces is as follows:

Functional Treatment Spaces	Key Planning Unit	Current Number	Proposed Number	Gap
Fast track patient care				
Assessment/Treatment Cubicles	Cubicles	0	6	6
Standard Single Rooms	Rooms	2	1	-1
Paediatrics				
Assessment/Treatment Cubicles	Cubicles	5	9	4
Standard single rooms	Rooms	1	2	1
Paediatric assessment/treatment	Cubicles	0	1	1
General Acute				
Adult Assessment/treatment Cubicles	Cubicles	27	27	0
Standard single rooms	Rooms	2	7	5
Short Stay Treatment				
EMU	Cubicles	10	12	2
PECC	Rooms	6	6	0
Critical Care				
Resuscitation	Rooms	3	5	2
TOTAL TREATMENT SPACES		56	76	20
Functional Support Spaces	Key Planning Unit	Current Number	Proposed Number	Gap
Adult Fast Track				
Consultation Rooms	Rooms	2	6	4
Sexual Assault Rooms	Rooms	1	1	0
ENT/Eye Rooms	Rooms	1	1	0
Procedure Rooms	Rooms	0	1	1
Paediatrics				
Consultation Room	Rooms	0	2	2
General Acute				
Procedure Rooms	Rooms	1	1	0
Plaster Rooms	Rooms	1	0	-1
Trauma Isolation Rooms	Rooms	0	1	1
Mental Health				
Consultation Rooms	Rooms	0	2	2
TOTAL SUPPORT SPACES		6	15	9

The attached spreadsheet summarizes line by line the areas required for each of the different treatment and support areas, and associated travel and engineering areas.

The existing Emergency Department is currently 2442m^2 which equates to a shortfall of 2527m^2 to meet 2015/2016 demand predictions, changes in current standards for room sizes and new models of emergency care.

As part of the NSW Health Process of Facility Planning, a Project Definition Plan is required to define the project scope and explore all options and make a recommendation to NSW Health. This process was undertaken from September 2010 through to May 2012 and explored a number of options. The attached site plan shows these options diagrammatically. Key considerations:

- The St George campus is highly developed and highly constrained by a lack of free space. Decanting current uses into new buildings to allow demolition is one of the major considerations in the future to free up space to meet the needs of the community.
- The existing Emergency Department is landlocked by 24/7 operational clinical departments: Radiology to the west and south and Ambulatory care to the east. To expand the Emergency Department in its current location would require these existing departments to relocate elsewhere on the site. There is no space, nor is there another suitable location for either of these departments on the hospital campus.
- A number of staged options were considered for expanding in its current location, but none could offer the required functional departmental relationships whilst continuing the operation of the Emergency Department. The attached plan demonstrates a number of options that were considered.
- A number of alternative locations for the Emergency Department were considered, which would enable the existing Emergency Department to remain operational, whilst the new building was constructed. There are only 2 possible locations for an entirely new building of 4,969m^2. The first considered was the Belgrave Street car park [Marked as "L" on the site plan attached] and the second was the location on Gray Street which is currently occupied by the Maintenance and Engineering Department.

As part of the NSW Health Process of Facility Planning, a Value Management Study (VMS) is required by an independent facilitator, to review the options considered and make a recommendation on the preferred option, based on a number of criteria agreed with NSW Health, the Local Health District and Health Infrastructure. It was unanimously agreed at the VMS Workshop that the layout which best addressed the requirements for the facility in terms of capacities and models of care/patient flows, was a new build Emergency Department. The relative pros and cons exercise consistently ranked it as the best performing option against each of the agreed criterion. It was the preferred option for the following reasons:

- It satisfies all Clinical Priorities set out in the Clinical Services Statement.
- A new department will maximize patient flows through the ED and enable full implementation of the new Models of Care set out by NSW Health.
- It is much closer to other clinical services such as inpatient ward block, theatres, and intensive care.
- There will be no disruption to the existing emergency department until the new ED is built.
- Improved ambulance bay and drop off, accommodating 4 additional ambulance off street drop off zones.
- It enables future vertical expansion of up to 7 additional levels on top of the new ED which would solve the long term planning restrictions currently faced by the hospital, and provides excellent links and expansion capacity to wards, intensive care, theatres and imaging departments.
- The vacated Emergency Department allows expansion of other services, and "unlocks" future development on the whole campus by creating decanting space.

- All clinical functions are on one level – there are no other Emergency Departments in Australia which operate on multiple levels.
- It meets the 5 year clinical service plan targets.
- The design brings the ED to the 'front of the hospital' on Gray Street.
- It would allow the national 4 hour waiting time KPI's to be achieved.
- It is adjacent to main hospital entrance, main hospital car park and the helipad – which is currently over 200m away.
- Offers the best value for money out of all other options considered.

Upon recommendation of the new build solution on Gray Street as the preferred option, Health Infrastructure instructed a master plan to be undertaken, to confirm that the location on Gray Street as the most suitable site to address the long term planning for the hospital.

This master plan was prepared by Billard Leece Architects in late 2011 and confirmed that the location on Gray Street was the most suitable for the Emergency Department. Upon confirmation of the above, Health Infrastructure instructed that the design for the Gray Street option be more fully developed. The constraints on this site included:

- Griffith House and the Fire Station to the north boundary.
- The 8 storey Tower Ward Block, and 5 Storey Clinical Services Building to the east.
- Gray Street to the west.
- Short Street to the South.
- A main 3 chamber substation which serves half the hospital campus located on the ground floor in the Clinical Services Building and requires 24/7 access for Ausgrid.
- The hospital mortuary which is located in the ground floor of the clinical services building which requires 24/7 access.
- The pathology department located in the ground floor of the clinical services building which requires 24/7 access
- The functional relationships within internal ED departments and other hospital departments as prescribed by NSW Health ED models of care.
- The location of a lobby and future 8 lifts required to serve the future 7 additional floors planned on top of the emergency department.

Given these constraints, and the required 4969m^2 of area at ground floor required by the Emergency Department, a number of options were developed by the design team. Given that access is required from Gray Street to the substation (based on Ausgrid standards), mortuary, and pathology it became apparent that Griffith House was a major obstacle. If it were to be retained, approximately 20% of the Emergency Department would not be able to be located on the ground floor. This would translate vertically as approximately 3000m^2 of lost future expansion space. The ED cannot expand in any other direction because:

- There is no other space for the substation in the clinical services building to be located, and would prove very disruptive and costly to relocate considering it serves half the hospital campus and its movement would leave a significant portion without power. An additional substation is being provided as part of this project, and without demolishing existing functional buildings there is no other suitable location for this substation to be located.
- The mortuary cannot be relocated to any other suitable location on the campus. The mortuary needs to be located in a discreet location [for access purposes] adjacent to the more acute hospital departments such as the ED, theatre, intensive care and ward block.

- The ED cannot expand further south east within the hospital, without relocating the main hospital entrance lobby and 8 lifts which serve the tower ward block.
- The ED cannot expand into the courtyard [existing loading dock] as this location is required for the future bank of 8 lifts, and associated lobby required to serve the 7 additional future levels. These future lifts and lobby are designed to be linked to the main hospital lobby to allow efficient movement of patients, staff and visitors through the hospital.
- The only other realistic options that would allow the ED to be located on one level was the area currently occupied by Griffith House. A Heritage Impact Statement was commissioned and concluded that whilst the house has some cultural heritage significance given its previous owners, it does not have any architectural significance. Considering that the house is not listed on the State Heritage Register, the only real option for the Emergency Department was to demolish Griffith House.

The Research Building [Animal House] is currently used for clinical research and due to the sensitive nature of the works carried out in this department it needs to be located in a discreet location on the site. As noted above, there are no suitable locations for a facility of this nature to be located, which provide the discreet access requirements currently offered in its present location. As such, any option which required the relocation of this building were not pursued in any more detail. In summary the main reasons the research building cannot be moved are as follows:

- The building, whilst originally intended as a temporary structure was installed 22 years ago, and has been through many refurbishments and upgrades which no longer make the building 'demountable'. Should the facility be required to be re-located a new building would be required;
- Due to the sensitive nature of the research that is conducted in the building, there are no other locations on the campus which would offer privacy when delivering and picking up animals for research purposes [which currently takes place daily], or could accommodate the footprint required for a new building
- The top floor of the building is in the process of being re-developed into a Surgical Skills Centre, and is required to be located adjacent to the theatres in the Clinical Services Building.

The option of moving Griffith House was considered, and a report issued by a structural engineer is attached to this report. The conclusions are as follows:

- The existing building is in poor structural condition and would not suit a 'brick by brick' approach due to the loss of construction detail and extensive labor and time required.
- The building would have to be moved in its entirety, which would involve deep excavations, jacking up the house without damage and transportation of the building on a trolley to a new location. This was discounted because:
    - there is no other location on the hospital site that could accommodate the building; and
    - the size of the house would only permit its transportation on major roads
    - the cost was prohibitive, estimated at $1.5m - $2m for the relocation, plus $500k for upgrades to bring the house up to current codes. This excludes any land purchase costs for an alternative site.

Due to these issues, it would not be possible to relocate the house as part of the Emergency Department project.

Considering the above, the current proposed design for the Emergency Department was considered by the Local Health District, NSW Health and NSW Health Infrastructure as meeting all the current and future needs required by the hospital and local area, and as such was submitted to the DoPI for approval.

We trust that this provides a clear outline of the three year process that has been conducted to plan and design the new emergency department at St George Hospital. What started out as a $10million upgrade to the existing facility will now be a state of the art emergency department which is commensurate with its role as a Trauma Centre.

We look forward to the determination of this project in the near future.

Yours sincerely
Urban Planning Outcomes

Leoné McEntee
Director