



**PARKING & TRAFFIC**  
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**Client**

Health Infrastructure, NSW Government

**Project**

Coffs Harbour Hospital  
Updated Parking Demand Study

**For the attention of:**

Rebecca Wark  
Health Infrastructure

**Date**

18<sup>th</sup> March 2013

**Contact**

Mary Seymour & Kelvin Worthington  
02- 8920 0800  
0408 651 100 & 0404 041 570  
mary.seymour@parkingconsultants.com  
kelvin.worthington@parkingconsultants.com

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## 1. Executive Summary

The Coffs Harbour Base Hospital (CHBH) is operated by Mid North Coast Local Health District (“MNCLHD”) and forms part of the Coffs Harbour Health Campus. The 292 bed hospital ( source: Development Details & Assumptions - March 5,2013) was completed in December 2001 and provides emergency, critical care medicine, surgery, obstetrics and gynaecology, paediatrics, mental health, aged care, primary and community care, limited rehabilitation and a range of clinical support services.

At the time of our previous work at this hospital (2010) the site incorporated 632 at-grade parking bays. This has now been increased to 671 with additional bays in the North Coast Cancer Institute (NCCI) car park (20) , new car park east (12) and as a result of the reconfiguration of the EMU area (7).

The new private medical centre which was proposed for an adjacent site on the corner of the Pacific Highway and the hospital access road has now been completed. The development includes a three-storey medical building with basement parking. A total of 200 parking bays were planned for this site, including 60 basement spaces. We have been advised that the private medical centre, whilst complete, is not fully occupied (estimated occupancy 20%).

Since the land that is now occupied by the private medical centre was used as overflow parking for the hospital we expected that, following the construction of the centre, there may be a shortage of parking for the hospital. A further issue regarding the hospital car park is that there has been a flood incident from the bordering creek, leading to damage to vehicles.

Since our review in 2010 CHBH staff numbers, bed numbers and reported Outpatient Occasions of Service have increased (the latter relatively significantly (58%)).

Health Infrastructure (HI) has requested PTC to update the demand estimates from our 2010 report by carrying out additional site observations, car park length of stay observations and collection of data from the LHD. No additional reporting or opinion regarding revenue assumptions and opportunities is required.

Occupancy and length of stay surveys of the car parking at the hospital were completed on Tuesday 5<sup>th</sup> and Wednesday 6<sup>th</sup> March 2013.

A summary of **peak parking demand** comparing 2010 and 2013 is shown in the following table:

	Tuesday 16 <sup>th</sup> February 2010	Tuesday 5 <sup>th</sup> March 2013	% Increase	Wednesday 17 <sup>th</sup> February 2010	Wednesday 6 <sup>th</sup> March 2013	% Increase
Peak Occupancy Number of Vehicles	839	938	12 %	794	974	23%

The main car park and surveyed Areas A, C and E had peak parking demand in excess of 120% and at peak times an additional 212 vehicles were parked in areas around the hospital where there are no marked bays. (Refer section 4.2 for detailed analysis).

The average length of stay **excluding** long term parkers (e.g. staff) was as follows:

	2010 Length of stay (hours)	2013 Length of stay (hours)	% Increase
Day 1	1.83	2.36	29%
Day 2	1.99	2.09	5%
Average	1.91	2.23	17%

Our analysis shows that the estimated hypothetical peak demand for parking is as follows:

Coffs Harbour Base Hospital	2010 Demand for car spaces	2013 Demand for car spaces	Within next 5 years
Weekday demand (per Section 5.1a)	823	1,064	1,356
Rounded	850	1,100	1,400

CHBH has a total of 362 marked bays available at other locations around the campus in addition to the 309 bays in front of the hospital. It appears that there is a current shortfall of parking of approximately 429 spaces (1,100 – 362 – 309). This shortfall could grow to 729 by 2016 assuming the same rate of growth in staff and patients at the hospital as that seen between 2010 and 2013. The shortfall are currently parking on grassed areas adjacent to the main car park, at the rear of the hospital and near the entrance to the New South Wales University health facility and Shearwater Lodge, in the main car park aisles and in the gravel area at the rear of the NCCI car park.

**Therefore, with rounding, the current short fall in parking would appear to be approximately 450 spaces.**

It was observed at the time of our surveys and supported by anecdotal evidence that a considerable proportion of the car parking spaces which are easily accessible to the hospital are occupied by staff. Therefore we would recommend when considering the provision of additional car spaces the hospital also considers restricting staff access to public parking spaces, so that these are kept available for outpatients and visitors to inpatients.

Also a number of vehicles were parked illegally in car park aisles and were observed “cruising” the main car park looking for a vacant car spaces. Improved signage could help direct parkers to available spaces and reduce unauthorised parking as the location of car spaces, other than in the main car park, is not evident to drivers unfamiliar with the hospital grounds.

The contents of this report are governed by the statements set out in Section 6 “Limits of this Report” and should therefore be read in conjunction with them.

## **2. Introduction**

This section provides background information relating to Coffs Harbour Base Hospital and the parking situation at the hospital, together with an overview of PTC's brief in regard to parking at the hospital.

Coffs Harbour Base Hospital (CHBH) is located approximately 4kms south of the centre of Coffs Harbour, in northern New South Wales. The hospital comprises 292 overnight beds (source: Development Details & Assumptions - March 5, 2013) together with a bulk-billed clinic adjacent to the Emergency Department. Services provided at the hospital include emergency, critical care medicine, surgery, obstetrics and gynaecology, paediatrics, mental health, aged care, primary and community care, rehabilitation, general medicine, cardiology and interventional procedures, renal dialysis, oncology, radiotherapy and a range of clinical support services. There is also the North Coast Cancer Institute (NCCI) located on the same campus, providing integrated cancer services to the North Coast NSW residents at Port Macquarie, Coffs Harbour and Lismore. These services involve a lot of clinics and ambulatory activity in addition to inpatient presentations.

The campus also houses a New South Wales University health facility and Shearwater Lodge, which provides accommodation for families of patients attending the NCCI for treatment.

A new private medical centre has also recently been completed adjacent to the CHBH campus (shown in the top left hand corner of the plan below).

A plan of the site is shown below:



The hospital has a catchment area including Coffs Harbour, Bellingen and Nambucca LGAs which have a regional catchment population of over 200,000 people (70,000 within Coffs Harbour LGA) (Source: Coffs Harbour City Council).

Population growth in Coffs Harbour is forecast at an average of 1.56% per annum between 2013 – 2031 (source: Coffs Harbour City Council). The hospital informs us that they expect growth of the entire catchment to average approximately 4% per annum. (source: CHBH 2010 Report)

The proportion of people aged over 65 within the catchment area is higher than the NSW average (source: CHBH 2010 Report), and this age group is expected to comprise 20.1% of the Coffs Harbour population by 2021 (source: Coffs Harbour City Council). It would be expected that this age group may require greater access to medical facilities than a younger demographic.

The hospital is 98% self-sufficient i.e. able to provide 98% of required treatment on site without the need for a patient to have to travel to a city hospital for treatment (source: CHBH 2010 Report).

Staff at the hospital are drawn from a radius of approximately 20kms. Limited transport alternatives over such a wide area result in a large proportion of staff driving to the hospital. Parking is also required for medical specialists attending the hospital for brief periods or urgent recall. There are currently four designated spaces for the obstetricians and paediatricians attending emergency caesareans and as these are often filled they have to find a space in the public car park which can lead to delays in attendance.



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Parking at the hospital comprises 671 at-grade marked bays in various locations around the campus. We also observed significant numbers of vehicles parked in other areas of the site, such as grassed areas and the fringe of the wooded area to the south of the hospital building and the gravel area at the rear of the NCCI car park, suggesting that the hospital has an inadequate supply of formal parking bays.

Parking in unauthorised areas was also observed e.g. in no parking zones, drop off zones, ambulance zones and in car park aisles.



Parking in Car Park Aisles

Our surveys of the hospital car parking areas also revealed that parking time restrictions are not being observed in the drop off zones and 1 & 2 hour restricted parking areas. There is no by-law to enable the hospital to fine and enforce unauthorised parking.

A major issue for the campus is flooding. The site is bordered to the north by a tidal creek and to the south east by marshy ground. In times of heavy rainfall the site is prone to flooding, and in one incident this caused significant damage to parked vehicles. Also wet weather limits the ability to park in the grass areas surrounding the campus, as observed at the time of our site visit.

A further issue for the hospital is the lack of available space to expand parking on the campus. In addition to the creek to the north and marshy ground to the south east, the site is bordered to the east by the Pacific Highway (the main north-south transport link) and to the south by a wooded area, which we understand is a koala sanctuary. Therefore, there is extremely limited available land on which to construct additional parking which would be convenient for hospital staff, outpatients and visitors. The paddock on which the new Medical Centre adjacent to CHBH is constructed was previously used for parking overflow but is no longer available following completion of the development.



Health Infrastructure (HI) has requested PTC to update the demand estimates from our 2010 report by carrying out additional site observations, car park occupancy and length of stay surveys and collection of data from the LHD. No additional reporting or opinion regarding revenue assumptions and opportunities is required.

The scope of the project is to include CHBH only, excluding the New South Wales University health facility and Shearwater Lodge.

### **3. Demand Estimates Methodology Overview**

#### **3.1 Methodology Overview**

PTC's methodology for estimating parking demand at hospital facilities was outlined in our report dated 3<sup>rd</sup> March 2010 and is familiar to HI following our work at this site, Westmead Health Campus and Campbelltown Hospital.

In order to estimate the demand that would be derived from parking at CHBH, PTC was provided with certain information by the hospital and also carried out occupancy and length of stay surveys of the car parking at the hospital on 5<sup>th</sup> and 6<sup>th</sup> March 2013.

This information was reviewed in order to obtain an understanding of the parking demand generators at CHBH, including:

- Overnight bed numbers
- Number of outpatients
- Staff numbers
- Alternative parking close to the site
- External demand drivers (if any) e.g. nearby industrial site

#### **3.2 Transport Environment at CHBH**

There has been no material change to the transport environment since our report dated 3<sup>rd</sup> March 2010. The primary mode of transport to the hospital remains the car.

#### **3.3 Relevant Parking Zone**

There has been no material change to the availability of alternative parking options in the hospital's relevant parking zone other than that provided as part of the new Private Medical Centre.

The Centre comprises private medical suites, a pharmacy and a café/gift shop. Facilities provided will include an MRI unit (which CHBH does not have) and radiology and pathology (which CHBH does have but

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is not seen as necessarily competing with CHBH). Under the Development Application the centre is required to provide 200 parking spaces (60 basement spaces and 140 at-grade spaces). The Centre, whilst complete, is not fully occupied or operational (advised occupancy at 20% and medical imaging has not commenced). It was observed at the time of our site visit that 123 at-grade parking spaces are available at the front and rear of the building, together with a number of basement spaces (60 per original development application – unable to confirm as access controlled by roller shutter).



Rear Car Park New Medical Centre

The parking at the rear of the centre is controlled by boom gates. Visitors to the Centre are entitled to one hour free parking which is controlled by a system of validation. A ticket is taken upon entry to the car park and 'validated' to a free exit ticket by the Centre at the conclusion of the patient's visit. In this way the Centre control who parks in the car park i.e. only those patients with appointments at the Centre. These details were confirmed by the access control equipment suppliers for the Centre, Wilson Technology Solutions. We are also advised that the car park is patrolled by a security guard to ensure only the Centre's patients park there.

As noted earlier, the basement car spaces at the Centre are accessed via a ramp secured by a roller shutter. We were advised the basement spaces are not available for public parking and are leased in conjunction with the medical suites.

During our site visit it was observed that the car park at the rear of the Centre was not operating at capacity and it was unlikely that visitors to the Centre were using hospital car parking. However we were advised anecdotally that staff at the Centre use hospital parking as no staff parking is provided at the Centre. This was difficult to verify and the impact difficult to assess as the Centre is not operating at full capacity.

By way of clarification in relation to the RPZ we would also comment that whilst there is public parking available at a retail Service Centre located across the Pacific Highway from the hospital, it is not considered a materially viable alternative to parking at the hospital due to:

- The difficulty of pedestrian access. It is necessary to walk to the traffic lights at the very busy intersection adjacent to the hospital in order to cross the highway and access the hospital site. The Pacific Highway at this intersection comprises two lanes in each direction plus turning lanes and carries a high volume of traffic, including heavy road freight vehicles. It is therefore not an attractive crossing option for pedestrians, despite being signalised.
- The distance from the hospital. Because it is necessary to walk from the parking to the signalised intersection noted above, rather than directly to the hospital, the actual walking distance is in the region of 500 metres, and is therefore considered to be an unattractive option for the majority of hospital-related users.

#### **4. CHBH Car Park Surveys**

This section sets out the findings of our occupancy and length of stay surveys of the parking at CHBH.

These surveys were carried out over a limited period (2 days) on Tuesday 5<sup>th</sup> and Wednesday 6<sup>th</sup> March 2013. These days were chosen after consultation with the hospital, as to which days provided the best representation of activity on the campus.

The main objectives of the surveys were to understand:

- Peak parking demand (which will always occur on weekdays, as there are fewer staff on campus at weekends and no outpatient activity)
- The average length of stay of outpatients and visitors to inpatients parking at the hospital

##### **4.1 Overview**

CHBH currently has the following supply of parking for staff, outpatients and visitors to inpatients:

<b>Car Park</b>	<b>Number of Spaces</b>	<b>Used by</b>	<b>Comments</b>
Main Car Park	309 <sup>1</sup>	Staff, outpatients and visitors	At-grade parking
Cancer Council Institute	180	Staff, outpatients and visitors	At-grade parking
Other marked parking	182	Staff, VMO's, outpatients and visitors	At-grade parking
Other unmarked parking	Not able to determine	Staff, outpatients and visitors	Unmarked parking on temporary gravel area at rear of NCCI car park, grassed and unauthorised areas
	<b>671<sup>2</sup></b>		

<sup>1</sup> excludes parking in aisles and on adjacent areas

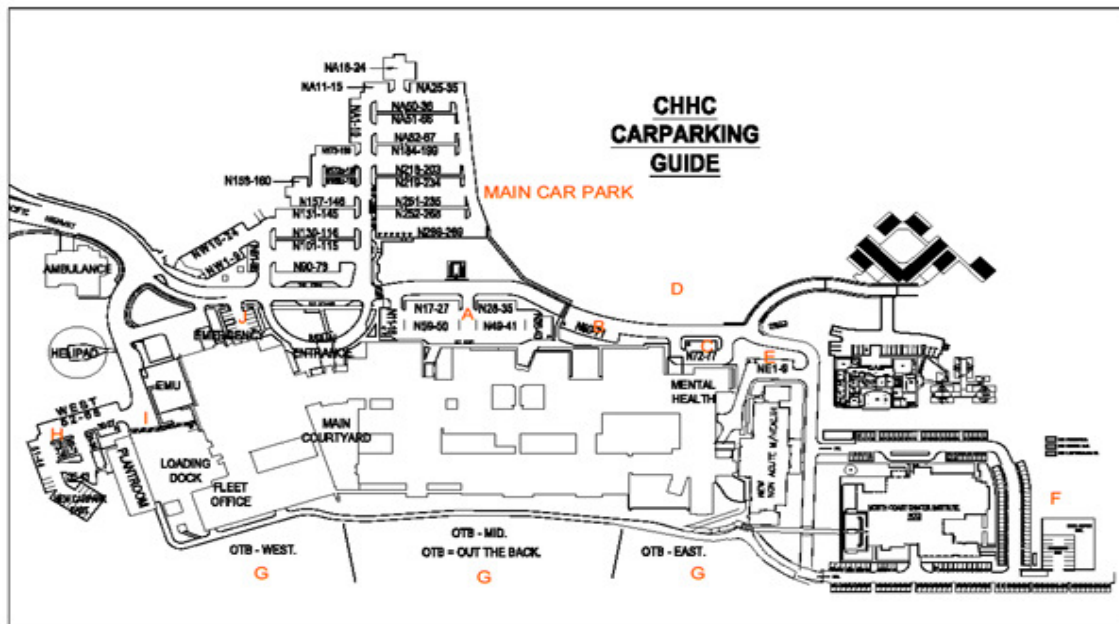
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<sup>2</sup> excludes unmarked parking areas and parking in aisles and in unauthorised locations e.g. no parking areas

There is no available on-street parking within immediate proximity to the hospital.

The surveyed areas were allocated into different sections, to gain a better understanding of the individual areas under pressure and any areas where spare capacity might be identified. The plan below shows the different sections, which cross-refer to the appropriate vehicle counts in the survey results.



CHBH campus plan detailing parking locations surveyed, by section

## 4.2 Occupancy Surveys

PTC surveyed all the hospital parking on Tuesday 5<sup>th</sup> March - Wednesday 6<sup>th</sup> March 2013 and the results are shown in **Appendices A - C** as follows:

**Appendix A** – Occupancy count of main car park, aisles and adjoining grassed area

**Appendix B** – Occupancy count of other parking areas (A – I as per plan in previous section)

**Appendix C** – Summary of occupancy counts across the entire CHBH campus

A summary of the **peak parking demand** results are shown in the following table, together with the comparable result from our 2010 surveys:

\* Based on marked bay capacity of 671 spaces

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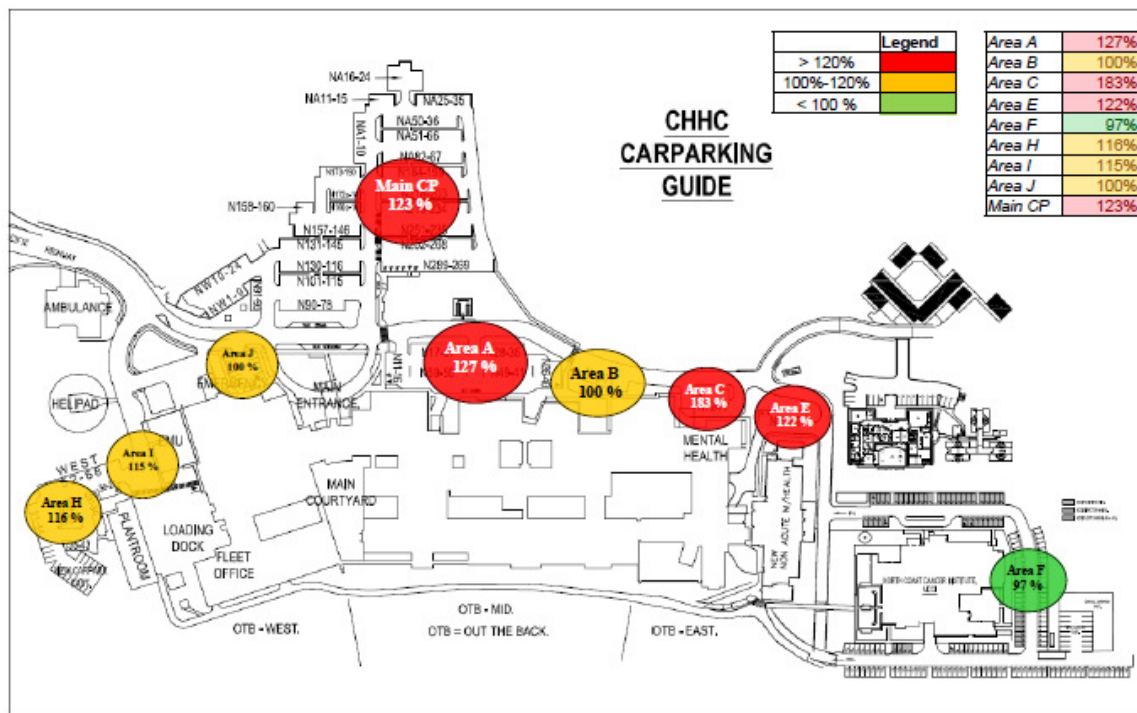
***March 2013***

	Tuesday 16 <sup>th</sup> February 2010	Tuesday 5 <sup>th</sup> March 2013	% Increase	Wednesday 17 <sup>th</sup> February 2010	Wednesday 6 <sup>th</sup> March 2013	% Increase
Peak Occupancy Number of Vehicles	839	938	12 %	794	974	23%
Peak Occupancy Time	10am	2pm		12pm & 3pm	2pm	
% of Capacity*	133%	140%		126%	145%	

The increased pressure on the current parking supply, as indicated by the percentages above, is evident from our surveys which showed that, unlike 2010, the car spaces at the Cancer Council Institute are now well utilised, despite their distance from the main hospital building. During our limited surveys the peak number of vehicles parking in these spaces was 171 compared to 180 available bays being 95% occupancy, compared to 103 of 160 available bays in 2010, being 64% occupancy. This suggests that hospital users are finding it more difficult to park close to the main entrance (e.g. in the main car park) and are thus forced to use parking which is further away.

Also a number of vehicles were parked illegally in car park aisles and were observed “cruising” the main car park looking for a vacant car spaces. Improved signage could help direct parkers to available spaces and reduce illegal parking as the location of car spaces, other than in the main car park, is not evident to drivers unfamiliar with the hospital grounds.

The 2013 **peak occupancy percentage** by survey area over the two surveyed days is illustrated in the below diagram. The grassed areas B and G and the temporary gravel area at the rear of the NCCI car park have been excluded from the diagram as these areas do not have marked bays, thus it is not possible to determine their capacities. The occupancy percentages have been colour-coded to illustrate the areas under greatest pressure (shown in red):



**2013 Peak Parking Occupancy % by Survey Area**

All surveyed areas, excluding the NCCI car park, had a peak parking occupancy in excess of 100%, with occupancy exceeding 120% in the main car park and Areas A,C and E.

The **peak parking occupancy** in Areas D, G and the temporary gravel parking area was as follows:

Parking Area	Peak Occupancy Number of vehicles
Area D (grassed area opposite Areas B,C & D)	52
Area G (grassed area on the southern side of the hospital, bordering woodland. Marked "OTB" on the plan above)	98
Temporary Gravel Area at rear of NCCI car park	62
<b>TOTAL</b>	<b>212</b>

As noted earlier, peak occupancy in these areas cannot be expressed as a % as there are no marked bays. However, the results show that there are up to 212 vehicles parked in the hospital grounds in

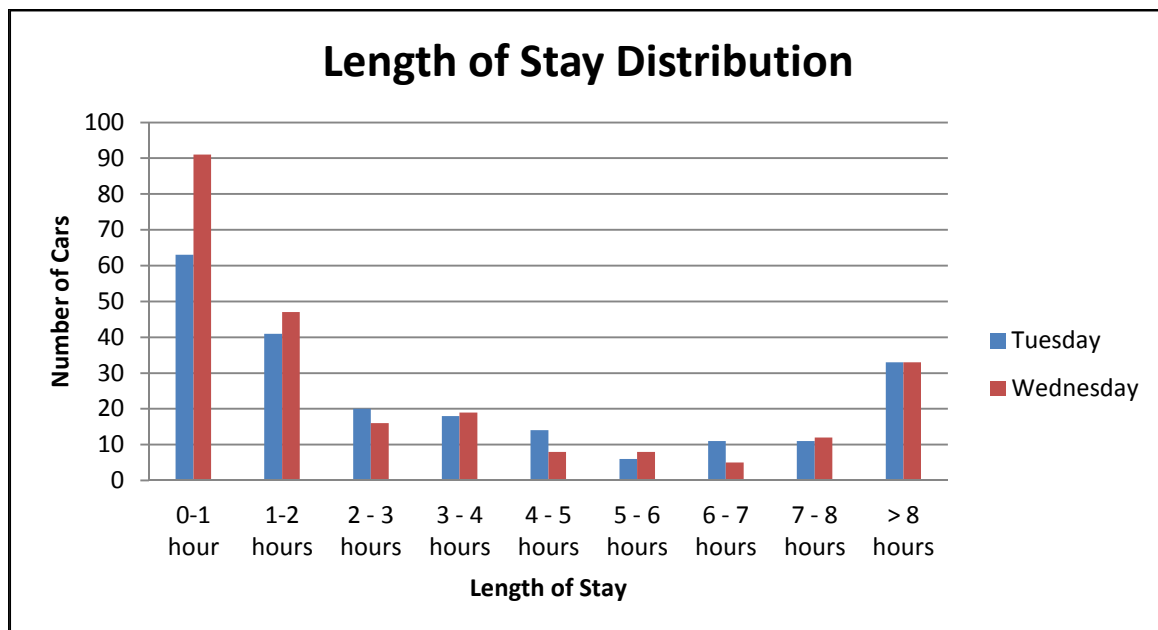
addition to those parked in the designated parking areas. This represents over 30% of the current marked bay capacity.

### 4.3 Length of Stay Surveys

Surveys were undertaken across two days, Tuesday 5<sup>th</sup> March – Wednesday 6<sup>th</sup> March 2013, to establish the average length of stay for outpatients and visitors to the hospital. This data is used in the development of the parking demand estimates.

PTC surveyed an area of the main car park (65 spaces) which is currently designated two hour parking and an area of Area A (21 spaces) which is currently designated one hour parking, as this should be the areas where the majority of outpatients and visitors park.

The survey results are summarised in **Appendix D**. The distribution of the results is shown below:



The length of time an outpatient stays at the hospital will be dependent on how long they are required to be there before the appointment, how quickly they are treated, and whether additional occasions of service are required (e.g. radiography, pathology etc).

The average length of stay of **all vehicles** was as follows (with 2010 data included for comparison purposes):



	<b>2010 Length of stay (hours)</b>	<b>2013 Length of stay (hours)</b>
Day 1	2.50	4.02
Day 2	2.74	3.52

It is apparent from the survey results that some spaces were being occupied by long term parkers (e.g. staff) despite the areas being designated as maximum 1 or 2 hour stay. This was also evidenced by observation and anecdotal evidence whilst undertaking the surveys. The increase in the number of long term parkers could also be attributed to the fact that the grassed parking area where the new Medical Centre is now located is no longer available for parking, so more of these parkers are using the marked bays in the main car park.

We therefore recalculated the average length of stay **excluding** long term parkers, in order to determine the length of stay of outpatients and visitors (which was the main purpose of the survey). The re-calculated results are as follows:

	<b>2010 Length of stay (hours)</b>	<b>2013 Length of stay (hours)</b>
Day 1	1.83	2.36
Day 2	1.99	2.09

These results are greater than that observed at other hospitals, where we would generally expect the average length of stay to be between 1 – 2 hours. We also note that the length of stay has increased since 2010. In one instance, we were advised that a visitor to the hospital had arrived at 6.45am in order to obtain a park close to the main hospital for her 90 year old mother's 10.00am appointment. She was aware of the parking problems at the hospital and her only alternative transport option was a taxi ride which would cost in excess of \$100. This may indicate visitors to the hospital are arriving earlier than necessary for appointments and therefore staying longer than in the past which is further contributing to the parking shortage.

#### **4.4 Other Data**

In addition to the limited surveys undertaken at CHBH, PTC also applied its experience at other hospitals in order to estimate the elements comprising parking demand e.g. percentage of people driving to the hospital.

#### **4.5 Summary**

All of the data mentioned above was used in the construction of our demand estimates

As there has been no material change in the transport environment at CHBH since our 2010 report the demand estimate assumptions adopted are broadly the same, except for:

- % day shift, administration, and afternoon shift staff parking in the car park has been amended from 100% to 98% to make some allowance for 'kiss & drop' activity.
- Similarly, the % of outpatients and visitors parking in the car park has been reduced to 98%
- Parking space turnover has been amended based on our new survey results

## 5. Parking Demand

This section sets out the parking demand estimates for CHBH.

General assumptions used in the formulation of the demand estimates include:

- 292 overnight beds (2010: 272 beds)
- Estimates are based on Financial Year End, commencing July 2012

### 5.1 Current Demand

**Appendix E** summarises the identified demand drivers and assumptions, which we arrived at using a combination of car park occupancy and length of stay surveys over 2 days at CHBH, information supplied by hospital management, and our experience and knowledge of demand factors at other hospitals.

#### a) Summary of CHBH weekday parking demand

Category	Demand for car spaces
Staff – day shift	558
Staff – afternoon shift changeover	37
VMO's	10
Education & Training - Hospital	7
Education & Training – University of NSW	22
Outpatients	302
Visitors to inpatients (peak)	45
Emergency Department presentations (peak)	16
Fleet vehicles	38
Volunteers	21
Others (contractors etc)	8
<b>Total</b>	<b>1,064</b>

The estimated peak requirement of 1,064 spaces compares with the observed peak occupancy as measured by our surveys of 974 vehicles. This provides broad support and verification of the demand

assumptions.

### **b) Weekend parking demand**

Note that there is no requirement to estimate peak parking demand at weekends, as this will always be lower than the weekday peak, due to there being minimal administration staff present at weekends and no (or limited) outpatient activity. This means that if there are sufficient spaces to meet the weekday peak there should always be sufficient to meet the weekend peak.

## **5.2 Estimated Number of Spaces Required**

Peak occupancy of the car park is expected to occur during weekdays, usually around mid-late morning when the majority of outpatients are at the hospital, and again at afternoon shift crossover time, when the hospital has its full complement of nursing staff, administration staff, outpatients and a proportion of visitors to inpatients all vying for the available parking spaces.

Our analysis shows that the estimated peak demand for parking is as follows:

<b>Coffs Harbour Base Hospital</b>	<b>Demand for car spaces</b>
Weekday demand (per Section 5.1a)	1064
Rounded (to allow some headroom)	1100

CHBH has a total of 362 marked bays available at other locations around the campus in addition to the 309 bays in front of the hospital. Therefore it appears that there is a shortfall of parking of approximately 429 spaces ( $1100 - 362 - 309$ ).

Note that in viewing the above estimated capacities, it should be borne in mind that it may not be realistic to build the exact number of spaces required, due to construction practicalities.

The above demand is based on the information available to us at this time, and may be negatively affected if a greater number of staff, outpatients and visitors to inpatients were to take up public transport options; or there was an increase in 'kiss and drop' activity; or unforeseen alternative parking became available which was more attractive to staff, outpatients and visitors. In addition, they do not allow for any future growth of CHBH activity, which may increase demand for parking.

## **5.3 Impact of Potential Growth on Parking Demand**

PTC was not provided with detailed assumptions in relation to future growth over the next 5 years. We therefore estimated hypothetical future parking demand based on the historical rates of growth during the period 2010 – 2013.

<b>Coffs Harbour Base Hospital</b>	<b>Future (next 3 years) Demand for car spaces</b>
Weekday demand	1,356
Rounded (to allow some headroom)	1,400

This analysis indicates the shortfall in car spaces could (hypothetically) rise to 639 by 2016 ( $1,400 -$

671).

We understand that a Masterplan Report is currently being prepared for CHBH, although it has not yet been formally adopted and is subject to MNCLHD Board approval. This is likely to have significant implications for parking at the campus and we recommend that a further review of estimated parking demand be undertaken once the plan is approved and future demand drivers can be identified.

We also understand that some of the planned hospital expansion would utilise areas currently allocated to parking. Therefore the current supply of parking would decrease at the same time as demand increases. An area (21,000 m<sup>2</sup>) has been identified for additional parking supply, to the south-east of the campus, although the timing of this new supply provision is not yet known.

#### **5.4 Potential location of additional spaces**

It should be noted that irrespective of the hospital's decision regarding the potential location of additional car spaces it was observed at the time of our surveys and supported by anecdotal evidence that a considerable proportion of the car parking easily accessible to the hospital is occupied by staff.

Therefore we would recommend that, in addition to considering the location of additional car spaces, the hospital also consider restricting staff access to those car spaces closest to the hospital which are allocated for use by outpatients and visitors.

### **6. Limits of this report**

All surveys, forecasts and recommendations have been made in good faith and on the basis of the information available to PTC at the time of writing this report, as provided by Health Infrastructure and the Hospital.

The projected parking demand is hypothetical only and based on assumed patterns of travel mode shares and parking behaviours.

We undertook limited surveys in preparing this report.

Where general data has been applied based on other hospitals, there is the need to recognize the fact that each hospital is to some extent unique, particularly regarding driving habits, sensitivity to parking prices, alternative means of transport, available free parking on street, demographics of the area etc.

The demand estimates should be considered as indicative only because the process of making forward projections involves assumptions about a considerable number of variables and contingencies which are acutely sensitive to changing conditions.

Any reference to future market conditions should be regarded as estimates only.

**Mary Seymour & Kelvin Worthington**  
**Parking & Traffic Consultants**

APPENDIX A

COFFS HARBOUR BASE HOSPITAL  
MAIN CAR PARK OCCUPANCY SURVEYS

FORM 5D.	Project:	Coffs Harbour Base Hospital				Date:	5th March 2013		Surveyor:	Cathy McRae						
Instructions - please insert either number of spaces occupied ("occ.") OR vacant (vac), whichever is easier to count.																
		7.00	7.00	8.00	8.00	9.00	9.00	10.00	10.00	11.00	11.00	12.00	12.00	13.00	13.00	
Car Park	Capacity	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Remarks
Main Car Park	309	236	73	301	8	307	2	309	0	309	0	308	1	309	0	Vacancy 12.00 Disabled parking
Vehicles parked in aisles and on adjacent grass		0		24		36		61		67		54		70		People who asked me what I was doing, were very keen for a multi-storey car park. They hope it eventuates, that they don't have to pay like in some of the Sydney car parks at hospitals.
<b>TOTALS</b>		236	73	325	8	343	2	370	0	376	0	362	1	379	0	
		14.00	14.00	15.00	15.00	16.00	16.00	17.00	17.00							
Car Park	Capacity	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.							Remarks
Main Car Park	309	309	0	258	51	234	75	135	174							One lady parked at 6:45 am in order to get a park for her 90 year old mother to have day surgery at 10:00 am, their only other option was to catch a taxi from up near Emerald Beach which would have cost over \$100.
Vehicles parked in aisles and on adjacent grass		58		52		44		40								
<b>TOTALS</b>		367	0	310	51	278	75	175	174							

APPENDIX A

COFFS HARBOUR BASE HOSPITAL  
MAIN CAR PARK OCCUPANCY SURVEYS

FORM 5D.	Project:	Coffs Harbour Base Hospital				Date:	6th March 2013		Surveyor:	Cathy McRae						
Instructions - please insert either number of spaces occupied ("occ.") OR vacant (vac), whichever is easier to count.																
		7.00	7.00	8.00	8.00	9.00	9.00	10.00	10.00	11.00	11.00	12.00	12.00	13.00	13.00	
Car Park	Capacity	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Remarks
Main Car Park	309	169	140	279	30	309	0	309	0	309	0	308	1	307	2	Vacancy 12.00 and 13.00 disabled parking
Vehicles parked in aisles and on adjacent grass		0		3		41		52		65		66		58		9 spaces disabled parking 1 space for motorcycle parking
TOTALS		169	140	282	30	350	0	361	0	374	0	374	1	365	2	
		14.00	14.00	15.00	15.00	16.00	16.00	17.00	17.00							
Car Park	Capacity	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.	Occ.	Vac.							Remarks
Main Car Park	309	309	0	295	14	218	91	102	207							1 vacancy 15.00 disabled parking
Vehicles parked in aisles and on adjacent grass		59		52		54		38								At 4.30pm a lot of staff start to leave the car park to go home.
TOTALS		368	0	347	14	272	91	140	207							

## APPENDIX B

**COFFS HARBOUR BASE HOSPITAL  
OTHER PARKING OCCUPANCY SURVEYS**

			Coffs Harbour Base Hospital							Date:		5th March 2013				Surveyor:				Sarah Edwards																	
<b>Instructions - please insert either number of spaces occupied ("occ.") OR vacant (vac), whichever is easier to count.</b>																																					
			7.00 Non Des	7.00 Occ.	7.00 Vac.	8.00 Non Des	8.00 Occ.	8.00 Vac.	9.00 Non Des	9.00 Occ.	9.00 Vac.	10.00 Non Des	10.00 Occ.	10.00 Vac.	11.00 Non Des	11.00 Occ.	11.00 Vac.	12.00 Non Des	12.00 Occ.	12.00 Vac.	13.00 Non Des	13.00 Occ.	13.00 Vac.	14.00 Non Des	14.00 Occ.	14.00 Vac.											
Car Park		Capacity																									Remarks										
Area A	N11-59	49	2	35	14	5	47	2	7	46	3	3	46	3	10	48	1	9	47	2	7	48	1	10	49	0	* Extras on grass & in drop off zone, side of road										
Area B	N60-71	12		8	4			11		1			12	0			12		0			12	0			12	0		12	0		10	12				
Area C	N72-77	6		6	0			2		4	2			3		6	0			3		6	0			3	4	2		2	5	1		6	5	1	
Area D	Grass							26						38						42						42				45				33			
Area E	NE1-9	9		9	0			1		8	1			2		9	0			1		9	0			1	8	1		1	9	0		1	8	1	
Area F	NCCI	180		43	137					134	46					148	32			1		166	14			1	166	14		2	161	19		2	170	10	
Gravel Area (Temp)	Gravel temp parking next to NCCI		38			60			77			71			72			76			80			87			10	63	0								
								43						41						47						48					62						
Area G	OTB West/Mid /East																																				
Area H	West	63		21	42			39		24			2	53		10			2	57		6			1	57		6		7	63	0		7	63	0	
Area I	EMU	33		26	7			31		2			1	32		1			1	32		1				32		1		1	32	1		2	32	1	
Area J	Emergency	10		3	7			7		3				9		1			10	0			10		0			10	0		10	0		9	1		
TOTALS		362	42	151	211	94	281	81	130	315	47	166	337	25	174	340	22	187	341	21	193	340	22	223	348	14											
			15.00 Non Des	15.00 Occ.	15.00 Vac.	16.00 Non Des	16.00 Occ.	16.00 Vac.	17.00 Non Des	17.00 Occ.	17.00 Vac.																										
Car Park		Capacity																										Remarks									
Area A	N11-59	49	5	49	0	8	47	2	2	40	9																										
Area B	N60-71	12		12	0			12		0		11	1																								
Area C	N72-77	6		5	1			3		3	3		2	4																							
Area D	Grass							28					17																								
Area E	NE1-9	9		1	9		0			3	6	3		1	4	5																					
Area F	NCCI	180		1	152		28			140	40		1	89	91																						



## APPENDIX B

**COFFS HARBOUR BASE HOSPITAL  
OTHER PARKING OCCUPANCY SURVEYS**

FORM 5D.			Project:			Coffs Harbour Base Hospital			Date:			6th March 2013			Surveyor:			Sarah Edwards									
Instructions - please insert either number of spaces occupied ("occ.") OR vacant (vac), whichever is easier to count.																											
			7.00 Non Des	7.00 Occ.	7.00 Vac.	8.00 Non Des	8.00 Occ.	8.00 Vac.	9.00 Non Des	9.00 Occ.	9.00 Vac.	10.00 Non Des	10.00 Occ.	10.00 Vac.	11.00 Non Des	11.00 Occ.	11.00 Vac.	12.00 Non Des	12.00 Occ.	12.00 Vac.	13.00 Non Des	13.00 Occ.	13.00 Vac.	14.00 Non Des	14.00 Occ.	14.00 Vac.	
Car Park		Capacity																									Remarks
Area A	N11-59	49		27	22		38	11	2	49	0	7	49	0	8	46	3	9	48	1	7	44	5	13	49	0	
Area B	N60-71	12		7	5		11	1		12	0		12	0		12	0		12	0		12	0		12	0	
Area C	N72-77	6	1	5	1	1	4	2	2	6	0	3	6	0	2	3	3	6	5	1	2	5	1	4	5	1	
Area D	Grass		2			19			53			56	0		62	0		57	0		58	0		62	0		
Area E	NE1-9	9	2	7	2	3	7	2	1	7	2	1	9	0	2	8	1	1	7	2	2	8	1	1	8	1	
Area F	NCCI	180		37	143		104	76		147	33	5	162	18	6	167	13	9	164	16	2	168	12	4	171	9	
Gravel Area (Temp)	Gravel temp parking next to NCCI		13			17			42			44	0		46	0		48	0		50	0		61	0		
Area G	OTB West/Mid /East		29			51			74			82	0		76	0		82	0		84	0		98	0		
Area H	West	63	1	28	35		53	10	1	59	4	6	63	0	6	58	5	8	63	0	7	63	0	8	63	0	
Area I	EMU	33	1	31	2		32	1	1	33	0		33	0		31	2	2	33	0	5	33	0	5	32	1	
Area J	Emergency	10		2	8		2	8		9	1		10	0		9	1		9	1		10	0		10	0	
TOTALS		362	49	144	218	91	251	111	176	322	40	204	344	18	208	334	28	222	341	21	217	343	19	256	350	12	
			15.00 Non Des	15.00 Occ.	15.00 Vac.	16.00 Non Des	16.00 Occ.	16.00 Vac.	17.00 Non Des	17.00 Occ.	17.00 Vac.																
Car Park		Capacity																									Remarks
Area A	N11-59	49	10	49	0	10	49	0	7	40	9																
Area B	N60-71	12		12	0		12	0		11	1																
Area C	N72-77	6	4	6	0	2	5	1	1	2	4																
Area D	Grass		55	0		36	0		20																		
Area E	NE1-9	9	2	8	1	2	5	4		3	6																
Area F	NCCI	180	7	159	21	4	139	41	1	66	114																
Gravel Area (Temp)	Gravel temp parking next to NCCI		58	0		50	0		33	0																	
Area G	OTB West/Mid /East		76	0		65	0		4																		

## COFFS HARBOUR BASE HOSPITAL SUMMARY OF PARKING OCCUPANCIES

[illegible]

## COFFS HARBOUR BASE HOSPITAL SUMMARY OF PARKING OCCUPANCIES

[illegible]

## APPENDIX D

## COFFS HARBOUR BASE HOSPITAL CAR PARK LICENCE PLATE SURVEY RESULTS

<b>All Parkers</b>	Average		Turnover	Spaces
	Length of Stay	No. of Vehicles		
5th March 2013	4.02	217		
6th March 2013	3.52	239		
<b>Averages</b>	<b>3.77</b>	<b>228</b>		

<b>Excluding Long Stay Parkers</b>				
5th March 2013	<b>2.36</b>	<b>162</b>	2.45	86
6th March 2013	<b>2.09</b>	<b>190</b>	2.97	86
<b>Average</b>	<b>2.23</b>	<b>176</b>	<b>2.71</b>	<b>86</b>

**Spaces Surveyed**      **86**

Coffs Harbour Base Hospital Car Park  
 Registration Plate Survey Results Form - all vehicles  
 Date: 5th March 2013

Time	Length of Stay							
Space	1	2	3	4	5	6	7	8
78	10							
79	8	3						
80	4	4	2	1				
81	9	1	1					
82	11							
83	3	1	1	6				
84	1	9	1					
85	11							
86	1	3	1	1	5			
87	10	1						
88	11							
89	1	8	1					
90	5	1	3	2				
101	1	5	2	3				
102	2	1	1	1	6			
103	2	9						
104	5	1	5					
105	7	3						
106	7	4						
107	8	1	2					
108	11							
109	6	5						
110	3	2	6					
111	11							
112	9	1						
113	1	8	2					
114	11							
115	9	2						
252	7	3						
253	2	9						
254	3	8						
255	7	4						
256	7	3						
257	1	1	1	2	5			
258	1	5	3					
259	1	6	3					
260	2	3	1	4				
261	1	9						
262	10							
263	8	1						
264	10							
265	7	4						
266	9							
267	7	3						
268	7	3						
269	3	1	1	5				
270	10	1						
271	10							
272	9							
273	9							
274	4	1	4	1				
275	10							
276	9							
277	9							
278	1	7						
279	5	1	2	1				
280	4	2						
281	1	2	2	1				
282	8							
283	1	4	4					
284	2	1	3					
285	2	2	1	2				
286	4	1	4					
287	2	1	1	3				
288	5	2	2	2				
17	9	2						
18	4	1	6					
19	9	2						
20	5	2	1	2				
21	7	3	1					
22	11							
23	1	8	2					
24	8	2						
25	1	1	2	1	2	2	1	
26	10							
27	8	2						
50	1	1	2	7				
51	1	2	2	5				
52	1	10						
53	8	3						
54	11							
55	2	4	1	4				
56	4	2	1	2	1			
57	1	10						
58	1	10						
59	2	4	5					

Average Length of Stay 4.02

No. of Vehicles 217

## Coffs Harbour Base Hospital Car Park

## Registration Plate Survey Results Form - all vehicles

Date: 6th March 2013

Time

Space	Length of Stay							
	1	2	3	4	5	6	7	8
78	8	1	1	1				
79	5	2	4					
80	2	1	1	1	1	1	4	
81	11							
82	1	3	7					
83	10	1						
84	10	1						
85	5	6						
86	9	2						
87	2	5	1	2				
88	1	9	1					
89	1	10						
90	10	1						
101	3	1	2	1	1	1	1	1
102	5	1	2	2	1			
103	2	5	4					
104	9	2						
105	10	1						
106	8	1	1	1				
107	8	2	1					
108	10	1						
109	9	1						
110	4	1	1	1	2			
111	2	6	2					
112	5	4	1					
113	11							
114	11							
115	6	1	1	1	1			
252	6	4						
253	1	1	1	2	1	4		
254	8	2						
255	9	1						
256	1	9						
257	2	1	2	1	4			
258	3	2	1	2				
259	1	2	2	5				
260	8							
261	10							
262	10							
263	9	1						
264	10							
265	9							
266	8							
267	9							
268	3	3	3					
269	7							
270	8							
271	8							
272	6	3						
273	9	1						
274	7	2						
275	1	6	1					
276	9							
277	9							
278	10							
279	2	1	2	2	3			
280	9			2				
281	2	2	2	2				
282	9							
283	4	1	2					
284	1	6	2					
285	1	5	2	1				
286	2	3	2	2				
287	4	2	1					
288	1	1	1	4				
17	7	1	1					
18	10							
19	9							
20	9							
21	1	6	3	1				
22	4	1	2	3				
23	8							
24	8	1	1					
25	4	3	4					
26	1	8						
27	1	2	2	4				
50	1	3	2	3	1	1		
51	4	1	3	1	2			
52	2	2	2	1	4			
53	1	9	1					
54	1	3	1	1	4			
55	1	4	1	1	1	1	1	
56	1	1	9					
57	1	8						
58	9	2						
59	2	7						

Average Length of Stay 3.52

No. of Vehicles 239

Space	Vehicles per space Length of Stay							
	1	2	3	4	5	6	7	8
78								
79	3							
80	4	4	2	1				
81	1	1						
82								
83	3	1	1	6				
84	1	1						
85								
86	1	3	1	1	5			
87	1							
88								
89	1	1						
90	5	1	3	2				
101	1	5	2	3				
102	2	1	1	1	6			
103	2							
104	5	1	5					
105	3							
106	4							
107	1	2						
108								
109	6	5						
110	3	2	6					
111								
112	1							
113	1	2						
114								
115	2							
252	3							
253	2							
254	3							
255	4							
256	3							
257	1	1	1	2	5			
258	1	5	3					
259	1	6	3					
260	2	3	1	4				
261	1							
262								
263	1							
264								
265	4							
266								
267	3							
268	3							
269	3	1	1	5				
270	1							
271								
272								
273								
274	4	1	4	1				
275								
276								
277								
278	1							
279	5	1	2	1				
280	4	2						
281	1	2	2	1				
282								
283	1	4	4					
284	2	1	3					
285	2	2	1	2				
286	4	1	4					
287	2	1	1	3				
288	5	2	2	2				
17	2							
18	4	1	6					
19	2							
20	5	2	1	2				
21	3	1						
22								
23	1	2						
24	2							
25	1	1	2	1	2	2	1	
26								
27	2							
50	1	1	2					
51	1	2	2	5				
52	1							
53	3							
54								
55	2	4	1	4				
56	4	2	1	2	1			
57	1							
58	1							
59	2	4	5					

Average Length of Stay 2.36  
No. of Vehicles 162  
Spaces used for casuals 66  
T/N 2.45



Coffs Harbour Hospital  
Registration Plate Survey Results Form - short stay only  
Date: 6th March 2013

Time	Vehicles per space Length of Stay							
Space	1	2	3	4	5	6	7	8
78	1	1	1					
79	5	2	4					
80	2	1	1	1	1	1	4	
81								
82	1	3						
83	1							
84	1							
85	5	6						
86	2							
87	2	5	1	2				
88	1	1						
89	1							
90	1		1					
101	3	1	2	1	1	1	1	1
102	5	1	2	2	1			
103	2	5	4					
104	2							
105	1							
106	1	1	1					
107	2	1						
108	1							
109	1							
110	4	1	1	1	2			
111	2	6	2					
112	5	4	1					
113								
114								
115	6	1	1	1	1			
252	6	4						
253	1	1	1	2	1	4		
254	2							
255	1							
256	1							
257	2	1	2	1	4			
258	3	2	1	2				
259	1	2	2	5				
260								
261								
262								
263	1							
264								
265								
266								
267								
268	3	3	3					
269								
270								
271								
272	6	3						
273	1							
274	2							
275	1	6	1					
276								
277								
278								
279	2	1	2	2	3			
280								
281	2	2	2	2				
282								
283	4	1	2					
284	1	6	2					
285	1	5	2	1				
286	2	3	2	2				
287	4	2	1					
288	1	1	1	4				
17	1	1						
18								
19								
20								
21	1	6	3	1				
22	4	1	2	3				
23								
24	1	1						
25	4	3	4					
26	1							
27	1	2	2	4				
50	1	3	2	3	1	1		
51	4	1	3	1	2			
52	2	2	2	1	4			
53	1	1						
54	1	3	1	1	4			
55	1	4	1	1	1	1	1	
56	1	1						
57	1							
58	2							
59	2							

Average Length of Stay 2.09

No. of Vehicles 190.00  
Spaces used for casualties 64  
Turnover 2.97

		HOSPITAL DETAILS			HOSPITAL DETAILS			ASSUMPTIONS								
			Notes	% change current data compared to 2010 data		Notes			Notes	People/ car	Notes	% park in hospital	Notes	T/over	Notes	
COFFS HARBOUR BASE HOSPITAL		Current			Future			% drivers								
STAFF	FTE - STAFF	1025.1	1	3.68%	1062.86	17										
	FTE - DOCTORS	98.84	1	28.98%	127.49	17										
	FTE - TOTAL	1123.94		5.50%	1185.80											
ACTUAL STAFF ON SITE		Weekdays														
ACTUAL STAFF ON SITE	Day Shift and Admin	670	1	9.48%	733	17		85%	3	1	4	98%	7	1	8	
	Afternoon	133	1	10.83%	147	17		85%	3	1	4	98%	7	1	8	
	Night	59	1	5.36%	62	17		100%	3	1	4	100%	7	1	8	
ACTUAL STAFF ON SITE		Weekends														
ACTUAL STAFF ON SITE	Day Shift	152	1	5.56%	160	17		85%	3	1	4	98%	7	1	8	
	Afternoon/Night	142	1	3.65%	147	17		100%	3	1	4	100%	7	1	8	
VMO's		Weekdays														
VMO's	Weekends	30	1	0.00%	30	17		100%	14	1	4	100%	7	3	8	
	Weekends	6	1	0.00%	6	17		100%	14	1	4	100%	7	3	8	
EDUCATION AND TRAINING		Weekdays only (all day)														
EDUCATION AND TRAINING	University of NSW Students	15	1	0.00%	15	17		50%	15	1	4	98%	7	1	8	
	University of NSW Students	28	16		28	16		80%	16	1	4	98%	7	1	8	
RETAIL STAFF (catering etc)		Weekdays														
RETAIL STAFF (catering etc)	Weekends	1	1		2	17										
	Weekends	1	1		2	17										
OUTPATIENTS (AVERAGE PER DAY)		Hospital Outpatient														
OUTPATIENTS (AVERAGE PER DAY)	Pre Admission	165	1													
	Pregnancy Care Service	11	1													
	Renal	30	1													
	Community Health	18	1													
	Fracture	155	1													
	Allied Health	90	1													
	Drug & Alcohol	90	1													
	Methadone	33	1													
	Dental	28	1													
	Community Care (CAPAC)	110	1													
	Oncology / Radiotherapy	15	1													
	Pathology	194	1													
	Radiography	45	1													
	Breastscreen	48	1													
	Mental Health	30	1													
	Needle Syringe Prog.	46	1													
	Psychogeriatrician	30	1													
	Hydrotherpay Pool	1	1													
	Hydrotherpay Pool	10	1													
OUTPATIENTS (AVERAGE PER DAY)		Outpatients per day														
OUTPATIENTS (AVERAGE PER DAY)	Allowance for multiple presentations	1149		57.80%	1813	17										
	Adjusted Outpatients per day	1.1		18	1.1	18										
	Adjusted Outpatients per day	1044			1648			80%	5	1	6	98%	7	2.71	9	
VISITORS - WEEKDAYS		Total overnight beds														
VISITORS - WEEKDAYS	Bed occupancy	292	1													
	Average number of inpatients	1	2													
	Visitors per patient average	292														
	Total visitors per day	2	1													
	Total visitors per day	584		7.35%	627	17		80%	5	1.87	13	98%	7	2.71	9	
VISITORS - WEEKENDS		Total beds														
VISITORS - WEEKENDS	Bed occupancy	292														
	Average number of inpatients	1	2													
	Visitors per patient average	292														
	Total visitors per day	4	1													
	Total visitors per day	1,168		7.35%	1,254	17		100%	10	3	13	98%	7	2.71	9	
EMERGENCY DEPT		Daily presentations														
EMERGENCY DEPT	Daily presentations	94	1	10.00%	103	19		76%	1	1	6	98%	7	2.71	9	
	Daily presentations															
FLEET VEHICLES - WEEKDAYS		115														
FLEET VEHICLES - WEEKDAYS	- WEEKENDS	110	1	0.00%	115	17		100%		1		100%	7	3	8	
	- WEEKENDS				110	20		100%		1		100%	7	3	8	
VOLUNTEERS - WEEKDAYS		25														
VOLUNTEERS - WEEKDAYS	- WEEKENDS	4	1	25.00%	31	17		85%	11	1		98%	7	1	8	
	- WEEKENDS			0.00%	4	17		100%	11	1		98%	7	1	8	
OTHERS (CONTRACTORS, AREA HEALTH STAFF ETC)		Average per day (weekdays only)														
OTHERS (CONTRACTORS, AREA HEALTH STAFF ETC)	Average per day (weekdays only)	25	1	25.00%	31	17		100%		1		100%	7	3	12	
	Average per day (weekdays only)															

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- Figure provided by hospital.
- For parking purposes use 100% of beds occupied at any one time
- Day and afternoon shift 15% allowance for public transport users and "kiss and drop". Assume 100% of night shift drive, for security reasons
- Car Pooling/Sharing encouraged but not common
- 20% allowance for other mode shares (e.g bus, bicycle, motorbike etc)
- Only one person in car likely to be patient
- Allowance of 2% for "kiss and drop" excluding VMO's,night shift,fleet vehicles and others.
- Staff and Volunteers are all day parkers so turnover is 1. VMO's and Fleet vehicles likely to come and go, so assume turnover of 3
- Based on PTC licence plate surveys at CHBH
- Weekend visitors more likely to drive than weekday, due to very limited bus services at weekends and availability of spaces in the car park at weekends
- Volunteers mostly local retired people, so more likely to drive on weekends. Assume 15% allowance for public transport on weekdays.
- Contractors and area health staff likely to be on site for part of the day only. Assume a space turnover of 3
- Based on PTC surveys at other hospitals
- Assume all VMO's drive, as they usually working at different locations during the day
- Assume 50% of students travel by public transport or "kiss and drop".
- University of NSW has a shortage of 28 parking spaces for students.Assume 80% drive (information provided by University) Twice monthly training days overflow park in gravel area behind NCCI.
- Current data supplied by the hospital increased by historical growth rate between 2010 and current.
- PTC allowance for multiple occasions of service to same outpatient. Hospital advises that above data does not make allowance for this, hence PTC introducing an allowance based on our experience
- Assume nominal 10% increase (PTC estimate).
- Assume same as current based on weekday % change.

TOTAL SPACES			1100						
Notes	Base Estimate	People	% Cars	people per car (a)	Total cars per day	% cars parking in hospital car park	Vehicles parking in hospital car park	Turnover	Peak spaces required
	WEEKDAYS								
	COFFS HARBOUR BASE HOSPITAL STAFF								
	Day Shift and Administration	670	85%	1	570	98%	558	1.0	558
	Afternoon Shift	133	85%	1	113	98%	111	1.0	
A	Afternoon shift present at peak time (33%)	44	85%	1	37	98%	37	1.0	37
	Night Shift	59	100%	1	59	100%	59	1.0	
	VMO's	30	100%	1	30	100%	30	3	10
	EDUCATION & TRAINING Hospital	15	50%	1	8	98%	7	1.0	7
D	EDUCATION & TRAINING University of NSW	28	80%	1	22	98%	22	1.0	22
	OUTPATIENTS	1044	80%	1	835	98%	819	2.7	302
	VISITORS	584	80%	2	250	98%	245		
B	Visitors during peak hours (50%)	292	80%	2	125	98%	122	2.7	45
	EMERGENCY DEPARTMENT PRESENTATIONS	94	76%	1	71	98%	70		
C	Emergency Dept presentations during peak hours 8am - 6pm (62%)	58	76%	1	44	98%	43	2.7	16
	FLEET VEHICLES	115	100%	1	115	100%	115	3	38
	VOLUNTEERS	25	85%	1	21	98%	21	1	21
	OTHERS (CONTRACTORS ETC)	25	100%	1	25	100%	25	3.0	8
	TOTAL WEEKDAYS								1064
	Theoretical Occupancy % at peak								97%

- Notes
- A Assume that only 33% of afternoon shift present at peak times based on PTC experience and findings at other hospitals..
  - B Assume that only 50% of visitors present at peak period
  - C % presentations figure provided by CHBH.
  - D Education & Training University of NSW data provided by the University of NSW

APPENDIX E

COFFS HARBOUR BASE HOSPITAL DEMAND ESTIMATE - FUTURE

TOTAL SPACES			1400						
Notes	Base Estimate	People	% Cars	people per car (a)	Total cars per day	% cars parking in hospital car park	Vehicles parking in hospital car park	Turnover	Peak spaces required
	<b>WEEKDAYS</b>								
	<b>COFFS HARBOUR BASE HOSPITAL STAFF</b>								
	Day Shift and Administration	733	85%	1	623	98%	611	1.0	611
	Afternoon Shift	147	85%	1	125	98%	123	1.0	
A	<i>Afternoon shift present at peak time (33%)</i>	49	85%	1	41	98%	41	1.0	41
	Night Shift	62	100%	1	62	100%	62	1.0	
	<b>VMO's</b>	30	100%	1	30	100%	30	3	10
	<b>EDUCATION &amp; TRAINING</b> Hospital	15	50%	1	8	98%	7	1.0	7
D	<b>EDUCATION &amp; TRAINING</b> University of NSW	28	80%	1	22	98%	22	1.0	22
	<b>OUTPATIENTS</b>	1813	80%	1	1,450	98%	1,421	2.7	524
	<b>VISITORS</b>	627	80%	2	268	98%	263		
B	<i>Visitors during peak hours (50%)</i>	313	80%	2	134	98%	131	2.7	48
	<b>EMERGENCY DEPARTMENT PRESENTATIONS</b>	103	76%	1	79	98%	77		
C	<i>Emergency Dept presentations during peak hours 8am - 6pm (62%)</i>	64	76%	1	49	98%	48	2.7	18
	<b>FLEET VEHICLES</b>	115	100%	1	115	100%	115	3	38
	<b>VOLUNTEERS</b>	31	85%	1	27	98%	26	1	26
	<b>OTHERS (CONTRACTORS ETC)</b>	31	100%	1	31	100%	31	3.0	10
	<b>TOTAL WEEKDAYS</b>								<b>1356</b>
	<i>Theoretical Occupancy % at peak</i>								97%

Notes

- A Assume that only 33% of afternoon shift present at peak times based on PTC experience and findings at other hospitals.
- B Assume that only 50% of visitors present at peak period
- C % presentations figure provided by CHBH.
- D Education & Training University of NSW data provided by the University of NSW