

30 April 2014

Director General
NSW Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Peter McManus & David Gibson (Industry, Social Projects & Key Sites)

Dear Sam,

RE: SECTION 75W MODIFICATION REQUEST, MP 10_0070, SAN HOSPITAL, WAHROONGA

This correspondence seeks to modify Major Project Approval 10_0070 issued by the Planning Assessment Commission (PAC) on 3rd March 2011 for alterations and additions to the Seventh Day Adventist Hospital at Wahroonga.

MP 10_0070 authorises work within the 'Central Hospital' precinct of the Sydney Adventist Hospital site, consistent with the earlier Concept Plan for the Wahroonga Estate (MP 07_0166) issued on 31st March 2010.

The modification request outlined in this submission is sought pursuant to Section 75W of the Environmental Planning & Assessment Act, 1979 (EP&A Act). This submission is also accompanied by a road upgrade sequencing report prepared by traffic experts GTA Consultants.

Details of Modification Sought

This application seeks to modify Condition E1 of Major Project Approval 10_0070 which states:

"Prior to issue of Occupation Certificate, road upgrade works relative to the stages of the hospital development as outlined in the Accessibility of Transport, Traffic and Parking Implications, prepared Transport and Traffic Planning Associates and dated July 2010 shall be undertaken. These works include:

Stage 1A

(a) Initial upgrade at The Comenarra Parkway/Fox Valley Road intersection.

(b) Install 'No Parking' along Fox Valley Road in accordance with the requirements of the Ku-ring-gai Traffic Committee and Council.

Stage 2

(a) Upgrade the hospital access intersection with an additional egress lane (LT 'slip lane').

Stage 3

(a) Ultimate upgrade at the Comenarra Parkway/Fox Valley Road Intersection.

(b) Upgrade scheme at Pacific Highway/Fox Valley Road intersection."

Justification for Modification of Condition E1

A background to the various traffic consultant engagements relating to the Wahroonga Estate redevelopment is provided at **Appendix A** to this submission. **Appendix A** also provides a commentary on the staging of works that has occurred on the site and that which is proposed to occur in the immediate future.

Appendix B is a recent report undertaken by GTA Consultants which seeks to align the required road works to the sequencing of development that has occurred on the site thus far and the staging of development that is expected to occur hereon.

Included at **Appendix C** to this submission is an aerial image of the Wahroonga Estate depicting the work that has taken place on site to date and indicating future stages of work that are the subject of current applications.

The proposed amendment to Condition E1 that is sought by this modification request is justified for reason that:

- The condition in question was a recommendation from TTPA as part of the major project application.
- The TTPA recommendation was based on a cumulative traffic assessment by Halcrow (now GTA) undertaken for the Wahroonga Estate concept application. That assessment was based on a development staging plan which specified dates and therefore the cumulative traffic effects for various stages of the estate's redevelopment.
- Due to changes in market conditions, delays in statutory approvals for various stages of the estate's redevelopment, as well as protracted negotiations with RMS in relation to the scope of required road works, the development of the estate will no longer take place according to the staging plan initially relied upon by Halcrow (GTA).
- Subsequently, it is appropriate that the sequencing of road upgrade works, and their related costs, be amended to reflect the actual (current) staging of development.
- Further, as this experience demonstrates, future road upgrade works should not be made to be implemented according to specific dates or the completion of specific stages as circumstances could dictate a further change to such stages. Rather, this modification requests that future road upgrades works be implemented when specific traffic generation 'trigger points' are reached. In this regard, the accompanying GTA traffic report has specified such trigger points after analysing the traffic generation rates of each development stage throughout the estate.

This current request to adjust the timing of road works is not an abrogation of responsibility to undertake the necessary works. It reflects the landowner's ongoing discussions with RMS about the scope of works and a genuine effort on its behalf to coordinate construction activity so as to minimise disruption to existing site uses and the travelling public.

Importantly, certain works as required by Condition E1 have already been instigated by the Church and/or completed, as detailed below:

Stage 1A

- (a) Initial upgrade at The Comenarra Parkway/Fox Valley Road intersection.

Comment: Work at this intersection cannot reasonably commence until the existing school is relocated. This cannot take place until current applications for the amendment of the Concept Plan and for State Significant Development are approved. Relocation of the school is anticipated to occur gradually, as new buildings are completed, with this process scheduled to commence in January 2016 and be completed by end of 2020.

- (b) Install 'No Parking' along Fox Valley Road in accordance with the requirements of the Ku-ring-gai Traffic Committee and Council.

Comment: Approval was obtained from the Ku-ring-gai Traffic Committee as well as Ku-ring-gai Council to install such signs. The 'no parking' signs are now installed. The installation of the signs has effectively created two traffic lanes along the full frontage of the estate, with an immediate positive impact on traffic flows and intersection queuing.

These measures, combined, ensure that all construction staff must park their vehicles in the temporary car parks that have been provided at the southern and northern ends of the site, removing what was proving to be a considerable nuisance from the street.

Stage 2

- (a) Upgrade the hospital access intersection with an additional egress lane (LT 'slip lane').

Comment: The hospital entry has been upgraded and is due to have traffic lights installed and operational by end July 2014.

Stage 3

- (a) Ultimate upgrade at the Comenarra Parkway/Fox Valley Road Intersection.

Comment: The ultimate upgrade of the intersection requires work on both sides of Fox Valley Road and The Comenarra Parkway. Undertaking such work is affected by the presence of a school at the western edge of the intersection and a proposed commercial development at the eastern edge of Fox Valley Way. It is logical to undertake this work in a staged manner, commencing with work adjacent to the commercial building in order that it may tie into the access arrangements for this development. It is intended that the upgrade to the eastern side of the intersection will be undertaken with construction of the new 6,402m² commercial building on the corner Fox Valley Road & Comenarra Parkway. The completion of these road upgrade works can be tied to the Occupation Certificate for this development component. This will comprise the 'interim' intersection upgrade solution. It is intended that the upgrade to the western side of the intersection will be tied to the relocation of the existing school on the corner, due to the impact that the road upgrade design has on the corner of the site and the road widening that is required to effect it. This is consistent with what has previously been agreed in principle with the RMS in the draft Deed of Agreement and with the original terms of the project approval which anticipated an upgrade of the intersection in stages.

(b) Upgrade scheme at Pacific Highway/Fox Valley Road intersection.

Comment: *These works are to be the subject of a WIK agreement between the Church and the RMS as proposed under the draft Deed of Agreement.*

Consistency with Concept Approval

The modification to Project Approval (MP 10_0070) that is now sought will also bring the project approval into line with the previously amended Concept Approval.

Modification 2 of Major Project 07_0166, issued on 4 December 2012, requires:

B7 Agency road requirements

(1) A binding Deed of Agreement is to be entered into between the Proponent and the RMS prior to issue of the first Occupation Certificate for the staged expansion and refurbishment of the Clinical Services Building on the site. The Deed is to:

a. detail the road upgrade works to be undertaken by the Proponent, including:

i. reconstruction of (including upgrading of the existing traffic signals to) the intersection of The Comenarra Parkway and Fox Valley Road;

ii. intersection improvements where Fox Valley Road intersects with site accesses;

iii. widening The Comenarra Parkway to provide two traffic lanes in each direction between Fox Valley Road and Browns Road;

iv. widening Fox Valley Road between The Comenarra Parkway and the northern boundary of the site to accommodate two travel lanes in each direction. In addition, two southbound travel lanes must be provided along Fox Valley Road from the Pacific Highway to the site.

v. a monetary contribution or 'works in kind' (WIK) equivalent towards the estimated total cost of upgrading the Pacific Highway and Fox Valley Road intersection, comprising the equivalent of

1. 25 % of the estimated total cost of traffic signal/civil upgrade works and land acquisition costs associated with the upgrade of the Pacific Highway and Fox Valley Road intersection; and

2. 100% of the estimated total cost of upgrading The Comennara Parkway and Kissing Point Rd intersection, being the following works:

a. a left turn slip lane (min 50m storage) for the movement turning into Kissing Point Road (north);

b. two eastbound through lanes;

c. one right turn lane (min 50m storage) for the movement turning into Kissing Point Road (south); and

d. a single westbound through lane.

b. outline the arrangements for the Proponent and RMS to negotiate the scope, value and timing of any WIK towards the estimated total cost of upgrading the Pacific Highway and Fox Valley Road intersection referred to above; and

c. outline the extent of road upgrade works to be undertaken by the Proponent, including lane configuration, timing of works and estimated costs.

The modified Concept Plan approval for the Wahroonga Estate therefore has adjusted its requirement for external road works to require that a Deed of Agreement be entered into prior to the first Occupation Certificate being issued for the Clinical Services Building. This building is under construction and is due to be substantially completed by October 2014.

Notably, the amended Concept Plan condition leaves the actual timing of road works to be spelled out in the Deed itself, rather than in the Concept Approval. The site owner is presently in discussion with RMS regarding the execution of the necessary Deed. There have been adjustments to the draft Deed over time to best reflect the optimal road outcomes to accompany the new hospital works and those expected of the broader estate. The current draft Deed is presently being discussed with RMS and both parties are hopeful that an agreed outcome will soon be reached.

Incidentally a Works Authorisation Deed has been executed between the Church and RMS to enable the works to the main entry of the hospital to be undertaken while the Deed of Agreement remains unexecuted, demonstrating the Client's commitment to deliver on their obligations.

Potential Environmental Impacts

Although this modification seeks to change the sequencing of relevant road upgrade works, the potential environmental impacts are acceptable as the proposed sequencing reflects the likely stages of development. That is, as new stages of development come 'on line', commensurate road upgrade works will also be implemented. Those upgrade works and their timing have been developed by both traffic consultants who have worked on the project since its inception, i.e. TTPA and GTA Consultants. Their inputs reflect relevant standards and guidelines.

Suggested Modified Condition

In light of the above, as well as the explanation provided in the report prepared by GTA Consultants, we propose that Condition E1 be modified to read as follows:

"The physical configuration of road upgrade works shall be undertaken as outlined in the Accessibility of Transport, Traffic and Parking Implications, prepared Transport and Traffic Planning Associates and dated July 2010. However, the timing of such works shall be undertaken as specified below:

Main Hospital Entry

The main hospital access is to be modified appropriately prior to occupation of Stage 1A of the hospital development. The modification will include an additional egress land (LT 'slip lane').

'No Parking' Signage along Fox Valley Road

Prior to the occupation of Stage 1A of the hospital development, 'No Parking' signage shall be installed along Fox Valley Road in accordance with the requirements of the Ku-ring-gai Traffic Committee and Council (NOTE: These signs have already been installed).

The Comenarra Parkway and Fox Valley Road Intersection: Initial Upgrade

The interim upgrade of the intersection at The Comenarra Parkway and Fox Valley Road shall be completed prior to the occupation of the proposed commercial building (SPD Commercial Development) on the north-eastern corner of the intersection.

The Comenarra Parkway and Fox Valley Road Intersection: Ultimate Upgrade

The ultimate upgrade of the intersection at The Comenarra Parkway and Fox Valley Road shall be completed prior to the occupation of the proposed Wahroonga Adventist School Stage 2 (Junior School).

Signalisation of Vehicular Entry to Proposed Wahroonga Adventist School

Prior to occupation of Stage 2 (Junior School) of the proposed Wahroonga Adventist School, the associated vehicular entry from Fox Valley Road shall be signalised.

Pacific Highway and Fox Valley Road Intersection Upgrade

A 'works-in-kind' contribution is to be made to Ku-ring-gai Council for this upgrade no earlier than 31st December 2016."

Conclusion

This correspondence seeks to modify the sequencing of road upgrades works associated with the Wahroonga Estate redevelopment, as specified in the Major Project Approval 10_0070. The physical configuration of the upgrades will not change, only their sequencing. It is proposed to change the sequencing to reflect current and future staging of estate redevelopment.

We believe the request to be reasonable and justifiable in traffic impact terms. We note that a portion of the required works have already been completed or instigated. Other intersection improvements are planned to take place in tandem with adjacent development works, thereby minimising disruptions to the travelling public. Our client is hopeful that an a revised Deed of Agreement will soon be entered into with RMS and that this Deed will provide further stipulation in terms of the precise nature and timing of all external road works.

We would be pleased to discuss the recommended approach with the Department including any specifics relating to the suggested condition. We can also make available our traffic consultants should you have any queries regarding the assessments that have been undertaken. Should you require any further clarification on this matter, please contact the undersigned on 9221 5211.

Sincerely,



Wayne Gersbach
General Manager (NSW) / National Planning Manager

APPENDIX A - Background to Modification Request – Traffic Assessments & Development Staging

Traffic Consultant Views

Transport and Traffic Planning Associates (TTPA), the traffic consultancy that prepared the July 2010 report referred to in Condition E1, was established by Ross Nettle in 1994. Ross is a former Director of Project Planning Associates – a town planning, traffic and transport consultancy and a previous employee of the former Roads and Traffic Authority where he held a number of positions, culminating as Traffic Manager for the Metropolitan South and East areas. Ross has considerable experience in the planning, implementation and operational functions of major road and major development projects, as well as a proven involvement in traffic and road safety investigations, development assessment and traffic signal design.

Ross has been engaged by the site owners, the Australasian Conference Association Limited (the Seventh Day Adventist Church) in both the early planning stages that informed the Project approval for the hospital precinct and in the more recent stages of project delivery (including in an advisory capacity for a number of concept and project modifications for the development).

Bruce Masson of GTA Consultants (formerly Director of Transport Planning for Halcrow Pty Ltd) was initially engaged by Johnson Property Group (JPG) to provide input into the Concept Plan and then to review the scope of external roadworks required of the Wahroonga Estate redevelopment. This latter engagement was necessary to inform the Deed of Agreement between the landowner and the Roads & Maritime Services (RMS) that was required by the Concept Approval.

Bruce has recently been re-engaged by JPG to review a previous draft Deed of Agreement in light of changes to the scheduling of expected development at the site and to better align the required road upgrades to the 'flow' of development works now anticipated.

GTA has reviewed the previous draft Deed of Agreement and has recommended changes to reflect the sequence of development across the estate. A copy of the GTA report is included within this Appendix. It forms the basis of current and ongoing discussions with RMS regarding the specific requirements and timing of expected external road works for the estate.

Importantly, both Ross Nettle (TTPA) and Bruce Masson (GTA) have independently assessed the need to adjust the timing of road works required of the estate and have recommended that changes to the draft Deed of Agreement take place.

It is anticipated that a revised Deed of Agreement will be entered into prior to October 2014 (or prior to substantial completion of the Clinical Services Building) as required by the amended Concept Plan approval, subject to discussions with the RMS concluding before then.

Background to Development Staging

The staging of the road works described in the TTPA report of July 2010 (and referred to in Condition E1 and cited above) was largely indicative and based on the likely staging of development that was anticipated at the time. Since then, the actual staging of development that has taken place at the Wahroonga Estate has differed quite markedly from what was initially expected.

From the aerial image provided at **Appendix C** it is clear that only stage 1 of the Education Centre (Faculty of Nursing) has been completed on site to date. This building was officially opened by the NSW Governor on Friday 1st November 2013.

It is expected that the future sequence of work at the site will involve:

- Completion of the Clinical Services Building – October 2014
- Completion of the Education Centre Stage 2 – Mid 2016
- Construction of the Commercial Building (Precinct D) subject to JRPP approval – construction set to commence end 2014; completion estimated at December 2015)
- Construction of the Residential Buildings (Precinct C) subject to JRPP approval – construction set to commence mid 2015; completion estimated at December 2015)
- Relocation of school complex to future school site (Precinct B Central Church) - commencing January 2016

The actual sequencing of development that has taken place has necessitated a review of the timing of external road works that were anticipated by condition E1 in order to better align with project deliverables. This is not an unreasonable request given that the need for the road works is generated by additional traffic flows expected to be generated by new development, most of which has not yet occurred and which is now expected to 'kick in' at a later time.

Also, given that the physical construction of the works would otherwise be disrupted by necessary project construction works, it is far more practical to, as far as possible, provide external road improvements to coincide with the completion of adjacent project works. This is particularly relevant to road works adjacent to the existing school site at the corner of Fox Valley Road and The Comenarra Parkway. These road works require road widening which cannot occur until such time as the school is relocated.

A sequencing of proposed works that aligns with current expected project deliverables is outlined in the accompanying 'Wahroonga Estate Sequencing of Road Upgrade Works' report prepared by GTA Consultants (Issue B, dated 25 March 2014). A copy of this report is provided at **Appendix B**.



Wahroonga Estate
Update Report on Sequencing of
Road Upgrade Works

transportation planning, design and delivery

Wahroonga Estate

Update Report on Sequencing of Road Upgrade Works

Issue: B 25/03/14

Client: Australasian Conference Association

Reference: 14S1096000

GTA Consultants Office: NSW

Quality Record

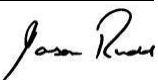
Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	24/03/14	Issue A	Kelly Yoon/ Bruce Masson	Jason Rudd	Jason Rudd	Jason Rudd
B	25/03/14	Issue B	Kelly Yoon/ Bruce Masson	Jason Rudd	Jason Rudd	

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1. Introduction

In November 2011 Halcrow prepared a report on road works required for the Wahroonga Estate development project titled "Wahroonga Estate – Traffic Report, Timing of Upgrade Works".

This report assessed the expected cumulative traffic generation of the Estate as it was developed with a specified development time frame and dates were specified for individual development components. On the basis of this, road upgrades for different intersections along and parts thereof along Fox Valley Road and The Comenarra Parkway were determined to be required by certain fixed dates. These fixed dates were subsequently incorporated in a draft Deed of Agreement between the Australasian Conference Association and the NSW Roads and Maritime Services.

Following further design investigations and changes in market conditions, namely planning approvals related issues for the different types of development, there is now some uncertainty about the sequence and timing of some elements of the total development package.

In view of this, it is considered necessary to adopt two alternative methods for the sequencing of road improvements:

- i It is proposed that intersection upgrades at locations such as Fox Valley Road-The Comenarra Parkway, Main Hospital entry and the new Wahroonga School intersection would be completed prior to the occupation of the particular development components rather than specific dates.
- ii It is considered that for other road works along Fox Valley Road except at its intersection with Pacific Highway, it would be best to specify cumulative traffic generation thresholds as triggers for road improvements. The Pacific Highway-Fox Valley Road intersection is to be upgraded by RMS with a partial contribution from the applicant.

The remainder of this report suggests alternative triggers for road and intersection upgrades that are not dependent on a fixed time frame for development. The analysis and traffic generation assumptions are the same as those assumed previously. The only difference is that trigger points for development are changed from a fixed time basis to a cumulative traffic generation basis or to be tied with occupation of particular developments.

2. Traffic Generation Rates

Table 2.1 sets out the traffic generation rates for the different types of proposed development. These generation rates are the same as those used previously and would be used to assess future development applications unless it is more appropriate to use alternative rates based on the future traffic generation of the site.

Table 2.1: Traffic Generation Rates Adopted in Assessment

Developments	Trip Generation Rates
Hospital Expansion*	
- Stage 1A	0.70(AM) and 0.89(PM) veh trips/additional staff
- Stage 1B	0.85(AM) and 0.85(PM) veh trips/additional staff
- Stage 3	0.83(AM) and 0.84(PM) veh trips/additional staff
Residential	
- Houses/Town houses (Staff Accom.)	0.85 veh trips/dwelling
- Studio/1-Bed units (Staff Accom.)	0.28 veh trips/dwelling
- Studio/1-Bed units (Student Accom.)	0.21 veh trips/dwelling
- Studio/1-Bed units (Private use)	0.36 veh trips/dwelling
- 2/3 bedroom units (Private use)	0.52 veh trips/dwelling
- Retirement units	0.2 veh trips/dwelling
School	
- Years 7-10	0.38 veh trips/student
- Years 11-12	0.44 veh trips/student
Commercial	1.44 veh trips/100m ² GFA

NOTE: * - traffic generation rates for hospital expansion have been derived from Sydney Adventist Hospital Proposed Staged Alterations and Additions Fox Valley Road, Wahroonga, Assessment of Transport, Traffic and Parking Implications, July 2010, Transport and Traffic Planning Associates report.

3. Development Components and Estimated Traffic Generation

Table 3.1 sets out the approved land use components and the estimated traffic generation for each of these. These are generally as per the approved Concept Plan.

Table 3.1: Estimated Traffic Generation

Developments	Activity Measure	Estimated Traffic Generation (veh trips/peak hour)
Hospital Expansion		
- Stage 1A	158 (AM) and 88 (PM) additional staff	111 (AM) and 78 (PM)
- Stage 1B	86 (AM) and 78 (PM) additional staff	73 (AM) and 66 (PM)
- Stage 3	157 (AM) and 79 (PM) additional staff	131 (AM) and 66 (PM)
- Total	401 (AM) and 245 (PM) additional staff	315 (AM) and 210 (PM)
Residential [#]		
- Houses/Town houses (Staff Accom.)	15 reduced units	-12 (AM/PM)
- Studio/1-Bed units (Staff Accom.)	5 reduced units	-1 (AM/PM)
- Studio/1-Bed units (Student Accom.)	61 additional units	13 (AM/PM)
- Studio/1-Bed units (Private use)	92 additional units	33 (AM/PM)
- 2/3 bedroom units (Private use)	295 additional units	153 (AM/PM)
- Total	530 additional units	186 (AM/PM)
School		
- Prep to Year 10	385 additional students	146 (AM only)
- Years 11-12	180 additional students	79 (AM only)
- Total	565 additional students	225 (AM only)
Commercial	7,000m ² additional GFA	101 (AM/PM)
Total		827 (AM) and 497 (PM)

NOTE: # - Residential components for this analysis excludes trips to/from the Mount Pleasant precinct as the additional traffic would use the Pennant Hills Road rather than the Fox Valley Road intersections.

Table 3.1 also shows the indicative development schedule, traffic generation by each stage and cumulative traffic generation. It is noted that the cumulative traffic generation may vary depending on the timing of each development components. The order of development components shown in Table 3.1 are only indicative and may vary.

Development Components and Estimated Traffic Generation

Table 3.2: Estimated Traffic Generation for Each Development Component and Cumulative Traffic Generation

Development Components	Additional Traffic Generation (veh trips/peak hour)	Additional Traffic Generation (veh trips/peak hour) - cumulative
Hospital – Carpark	-	-
Hospital – Education Centre Stage 1	-	-
Hospital – CSB Expansion Stage 1A, 1B & Entry	184 (AM) & 144 (PM)	184 (AM) & 144 (PM)
Commercial	101 (AM/PM)	285 (AM) & 245 (PM)
Hospital – Education Centre Stage 2	-	285 (AM) & 245 (PM)
Residential – Comenarra Parkway	35 (AM/PM)	320 (AM) & 280 (PM)
Wahroonga School		
a. Stage 1 (Middle School)	84 (AM only)	404 (AM) & 280 (PM)
b. Stage 2 (Junior School)	91 (AM only)	495 (AM) & 280 (PM)
c. Stage 3 (School Oval)	-	495 (AM) & 280 (PM)
d. Stage 4 (Senior School)	50 (AM only)	545 (AM) & 280 (PM)
Hospital – Shannon Building	131 (AM) & 66 (PM)	676 (AM) & 346 (PM)
Retail/Commercial/Residential Mixed Use	24 (AM/PM)	700 (AM) & 370 (PM)
Residential – Fox Valley Road	90 (AM/PM)	790 (AM) & 460 (PM)
Other Fox Valley Road Residential	37 (AM/PM)	827 (AM) & 497 (PM)

The cumulative traffic generation figures presented in Table 3.2 are about 45-50 vehicles per hour less than the figures presented in the previous Halcrow report, *Wahroonga Estate – Traffic Report, Timing of Upgrade Works (4th November 2011)*. The difference in figures is due to the residential trips generated by the Mount Pleasant precinct. The current analysis, that is the figures shown in Table 3.2, excludes trips to and from the Mount Pleasant precinct as this traffic would generally use the Pennant Hills Road intersection rather than the intersections on Fox Valley Road and/or The Comenarra Parkway.

4. Road Works to Accompany Specific Development Component

It is proposed that the following intersection upgrades would be completed prior to the occupation of the particular development components rather than specific dates.

4.1 Main Hospital Entry

The draft Deed indicates that *"The main hospital access is to be modified appropriately on commencement of building works for the Development"*.

It is proposed to complete the upgrade works at the Main Hospital Entry intersection prior to the occupation of Stage 1A Hospital development, which is prior to any increase in demand on this intersection. Hence, it is proposed that the Deed requirement for this work be changed to specify *"as prior to occupation of Stage 1A Hospital development"*.

4.2 The Comenarra Parkway and Fox Valley Road

4.2.1 Interim Upgrade

The interim upgrade works at this intersection will involve widening of eastern side of The Comenarra Parkway- Fox Valley Road intersection.

Originally an interim upgrade of this intersection was required in time for the opening of Stage 1 of the Hospital expansion.

However as the land required for this widening to take place is partially on the existing Seventh Day Adventist Mission Hostel, which will be demolished prior to the construction of the Commercial buildings at this site, it is practical for the interim upgrade to commence after the demolition of the existing hostel building.

Hence, it is proposed that the Deed requirement for these works be changed to specify *"interim upgrade works to be completed prior to occupation of Commercial building on the north-eastern corner of the intersection"*.

The interim works are shown in the following plans prepared by Northrop:

- SK1.01-B
- SK1.02-B

4.2.2 Ultimate Upgrade

The ultimate upgrade works at this intersection will involve widening of western side of The Comenarra Parkway-Fox Valley Road intersection to Browns Road.

The ultimate works are shown in the plans prepared by Northrop SK2.01-B to SK2.10-B.

The draft Deed indicates that the timing of ultimate upgrade works at this intersection be *"By the end of 2018, subject to the construction of a new school and demolition of the existing school occupying the north- western corner of the intersection"*.

Similar to the interim upgrade works, the land required for this widening is partially on the existing Wahroonga Adventist School. The existing School will be demolished once the new Stage 2 (Junior) School is constructed, north of the Sydney Adventist Hospital.

As there is some uncertainty about the exact timing of the occupation of the new Wahroonga Adventist School, it is proposed to remove the reference to the specific time, that is "*By the end of 2018,*" from the Deed requirement for this upgrade works.

During the drafting of the Deed, it is clear that the importance of the School relocating prior to the works was recognised due to the amount of land to be taken from the School site to accommodate this widening. There is no change to the intent for these works to be completed following the relocation of the School.

4.3 Proposed Signalised Intersection at the New Wahroonga School Access

It is proposed to complete the construction of a signalised intersection at the new Wahroonga School access road with Fox Valley Road prior to the occupation of Stage 2 (i.e. junior school) School development. Until then, vehicular access to the Middle School (i.e. Stage 1 School development) will be gained via the upgraded Hospital access road, in accordance with the strategy currently under determination by NSW Department of Planning & Infrastructure.

This approach is due to the proximity of the Stage 1 development to the proposed new signalised intersection as it is largely removed from it. The use of this space as grassed oval until new playing fields are constructed is also a key consideration.

5. Traffic Generation Based Road Upgrade Timings

The Concept Plan and subsequent traffic analyses identified road improvement requirements for different levels of traffic generation. For the purposes of the Deed of Agreement, these were then specified against specific timelines for individual development components.

Using the previous capacity analysis, triggers for the specified upgrade works required along Fox Valley Road were as set out on Table 5.1 below.

Table 5.1: Upgrade Works Required Based on Traffic Generation Threshold

Traffic Threshold (veh/hr)	Intersection Upgrade Required
450 veh/hr	Widen southbound lanes on Fox Valley Rd between Pacific Hwy and the development site
	Upgrade Fox Valley Rd-Lucinda Ave to signalised intersection
	Upgrade Fox Valley Rd-Ada Ave roundabout to provide two southbound lanes

The draft Deed indicates that the following works are to be completed by the end of 2017:

- Widening of Fox Valley Road to accommodate:
 - two travel lanes in each direction between The Comenarra Parkway and the northern boundary of the Development site; and
 - two southbound travel lanes along Fox Valley Road from the Pacific Highway to the Development site.
- Reconstruction (or upgrade to a signalised intersection) of the existing roundabouts at the Fox Valley Road / Ada Avenue intersection and the Fox Valley Road / Lucinda Avenue intersection.

The previous traffic analysis determined that by 2017 the cumulative traffic generation of the Estate would be 450 vehicles per peak hour.

Accordingly, it is proposed that a cumulative traffic generation of 450 vehicles per hour be set as the trigger for these works rather than the specific timeline.

Tracking of Traffic Generation Levels

In order to establish when this 'trigger' point is met, the Table 5.1 information will be utilised to establish additional traffic generation for each development component and resultant impact on the cumulative traffic generation for the Wahroonga Estate.

Each development project would be the subject of a Development or Project Application. These applications would each be accompanied by an individual traffic report that would cover the traffic generation of the project that was the subject of the application, as well as the cumulative traffic generation of all previously approved developments. It would then identify which of the specified improvement works on Fox Valley Road would need to be completed prior to occupancy of all or part of the development.

6. Pacific Highway and Fox Valley Road Intersection

This intersection requires a major upgrade to overcome both existing deficiencies and the effects of the traffic that will be generated by the Wahroonga Estate. In view of this, it was agreed that Wahroonga Estate would make a financial contribution towards these works. The exact timing of the upgrade will depend on the availability of RMS funds to cover the balance of the upgrade costs.

In order to expedite these works, it was proposed that Wahroonga Estate also contributes towards them with funds that it may otherwise have been required to contribute towards improvements at the Kissing Point Road-The Comenarra Parkway intersection. This intersection is somewhat remote from the Wahroonga Estate and discussions with Ku-ring-gai Council officers indicated that any improvements to this intersection would be problematic due to land constraints.

The timing for the Wahroonga Estate contribution to these works to be made was specified in the Deed as being 2016.

It is proposed that Pacific Highway intersection works-in-kind contribution be made when the RMS has finalised design and is ready to commence works, however, no earlier than 31st December 2016.

7. Summary of Triggers for Wahroonga Estate

In summary, the triggers for specified upgrade works required along Fox Valley Road are:

- Main Hospital entry intersection – The proposed works are to be completed prior to the occupation of Stage 1A Hospital development.
- Interim upgrade at The Comenarra Parkway-Fox Valley Road intersection – The land required for this widening to take place is partially on the existing Seventh Day Adventist Mission Hostel, which will be demolished prior to the construction of the Commercial buildings at this site. Hence, it is practical for the interim upgrade to commence after the demolition of the existing hostel building. It is proposed that the Deed requirement for this works be changed to specify *"interim upgrade works to be completed prior to occupation of Commercial building on the north-eastern corner of the intersection"*.
- Ultimate upgrade at The Comenarra Parkway-Fox Valley Road intersection – Similar to the interim upgrade works, the land required for this widening is partially on the existing Wahroonga Adventist School, which will be demolished once the new Stage 2 (Junior) School is constructed. As there is some uncertainty about the exact timing of the occupation of the new Wahroonga Adventist School, it is proposed to remove the reference to the specific timeline, that is *"By the end of 2018,"* from the Deed requirement for this upgrade works.
- New Wahroonga Estate Access Signalised intersection – It is proposed to complete the road works required at the new Wahroonga School access road with Fox Valley Road prior to the occupation of Stage 2 (Junior) School development.
- Widen southbound lanes on Fox Valley Road between Pacific Highway and the development site – It is proposed that the cumulative traffic generation of 450 vehicles per hour be set as the trigger for this work.
- Upgrade Fox Valley Road-Lucinda Avenue to signalised intersection – It is proposed that the cumulative traffic generation of 450 vehicles per hour be set as the trigger for this work.
- Upgrade Fox Valley Road-Ada Avenue roundabout to provide two southbound lanes – It is proposed that the cumulative traffic generation of 450 vehicles per hour be set as the trigger for this work.
- Ultimate upgrade at Pacific Highway-Fox Valley Road intersection – It is proposed that Pacific Highway intersection works-in-kind contribution to be made when the RMS has finalised design and is ready to commence works, however, no earlier than 31st December 2016.

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APPENDIX C – Aerial Perspective - Development Progress to Date – SAN HOSPITAL

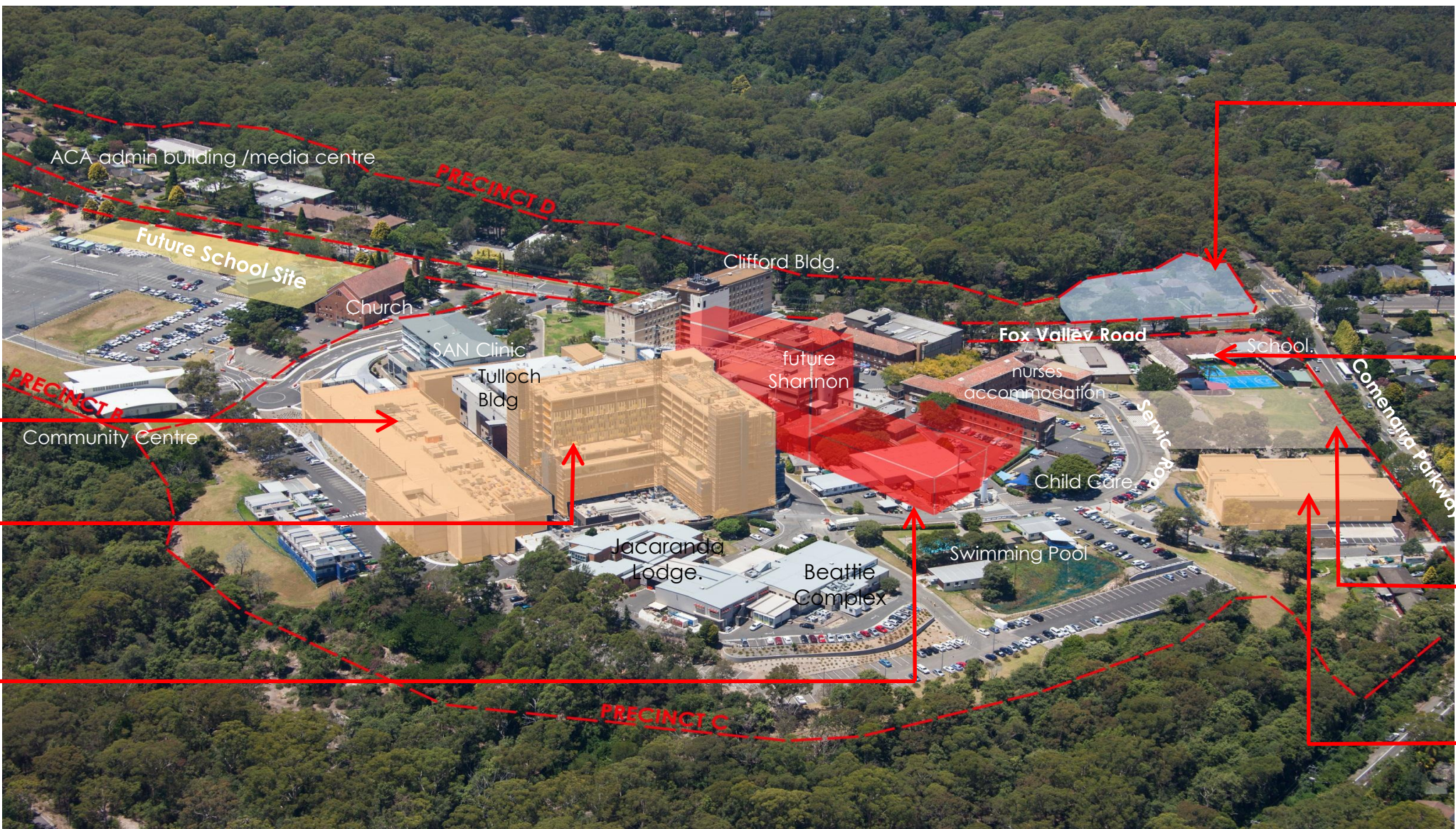
Precinct C: Central Hospital
115,000 total precinct GFA
90,450 total Hospital GFA comprising 58,448 existing GFA plus 32,002 new GFA

New Multi-deck Carpark
No GFA
completed

New Clinical Services Building & Entry Building
18,875GFA approved (CSB)
under construction

New Shannon Building

Yet to commence construction



Precinct D: Fox Valley
15,000 commercial GFA for whole precinct
6,402sqm commercial GFA as per MOD 4.
DA to be lodged with KCC

Mixed Use
2,000 GFA Retail
1,000 GFA Commercial plus residual residential in precinct C
To future DA application (subj. to relocation of School)

Residential
13,000 GFA student accommodation plus 105 residential dwellings
6,760 GFA student accommodation plus 60 residential apartments as per MOD 4.
To future DA approval

Education Centre (Facility of Nursing)
7,050 GFA allowable
Stage 1 - 3,375 GFA built
Stage 2 - 3,500 GFA
approved and under construction

A 3: Gross Floor Area Table:	Note the maximum 500 dwellings permitted in condition A4 of concept approval are not included in the following table:		
The max. gross floor area for each precinct is detailed in following table:			
Precinct	Max. GFA (sqm) excl. dwellings	Max. GFA (sqm) by landuse	Delivered to date/ under consideration
Precinct A: Mount Pleasant	17,700	17,700 Seniors Living	N/A
Precinct B: Central Church	12,200	9,000 Education 3,200 Place of public worship	Temporary classrooms only, no GFA allocated
Precinct C: Central Hospital	115,000	90,450 Hospital & facilities 13,000 Student accomod. 1,500 Hostels/Group homes/ Boarding houses 7,050 Faculty of Nursing 2,000 Retail 1,000 Commercial	18,875 under construction (CSB) 6,760 student acc. as per MOD 4 N/A N/A 6,875 (3,375 built +3,500 approved) N/A N/A
Precinct D: Fox Valley East	15,000	15,000 Commercial	6,402 as per MOD 4 7,806 in existing commercial
Precinct E:Residential East	N/A		N/A

Wairoa Estate Masterplan: Works completed, under construction and under consideration (April 2014)

A4: Dwellings table		
The max. dwellings/other accommodation types for each precinct is detailed in following table:		
Precinct	Maximum dwellings	Delivered to date/ under cons.
Precinct A: Mount Pleasant	16 Dwelling houses 38 Townhouses 27 Residential flat building	N/A N/A N/A
Precinct B: Central Church	9 Dwelling houses 200 Residential flat bldg.	N/A
Precinct C: Central Hospital	8 Dw3 Dwelling houses 105 Residential flat bldg.	N/A 60 res. Flat dwel. as per MOD 4
Precinct D: Fox Valley East	8 Dwelling houses 88 resid. Flat bldg. dwellings	N/A N/A
Precinct E: Residential East	6 Dwelling Houses	N/A

S75-SK02
Issue 02
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For information only

Not to Scale

MBMO