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23 May 2012

Mr Alan Bright Director Metropolitan & Regional Projects South NSW Department of Planning & Infrastructure 23-25 Bridge Street SYDNEY NSW 2000

Dear Mr Bright,

396 Lane Cove Road and 1 Giffnock Avenue, Macquarie Park - MP09_0209

Objection to the proposed major project

I write on behalf of Sonic Healthcare Limited of 14 Giffnock Avenue, Macquarie Park in raising serious concerns regarding the Major Project proposal MP09_0290 for 396 Lane Cove Road, Macquarie Park.

Background to the proposal

The proposal is for a commercial development at the property known as 396 Lane Cove Road and 1 Giffnock Avenue, Macquarie Park.

The concept is described in architectural drawings by Bates Smart dated September 2010 and involves demolition of existing structures and construction of four towers over a single basement area, comprising:

- Building A on the corner of Lane Cove and Waterloo Roads, comprising 17 storeys plus basement levels, (around 67 metres in height above ground level existing) with 29,760 square metres of office floor space; 747 square metres of retail floor space; and 33,688 square metres of gross floor area in total;
- Building B addressing Waterloo Road only, comprising 7 levels plus basement levels, with 14,385 square metres of office space; 276 square metres of retail space; and 16,085 square metres of gross floor area in total;
- Building C, on the corner of Waterloo Road and Coolinga Street, comprising 7 levels plus basement levels, with 14,385 square metres of office space; 390 square metres of retail space; and 16,615 square metres of gross floor area in total; and

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• Building D, on the corner of Giffnock Avenue and Coolinga Street, comprising 7 levels plus basement levels, with 15,200 square metres of office space; 439 square metres of retail space; and 16,980 square metres of gross floor area in total.

There would be a consolidated central courtyard area adjacent to Giffnock Avenue and there would be "civic plaza" spaces and through site links utilising the setback and building separation areas within the development site. The proposal is intended to provide integration to the Macquarie Park Railway Station entrance.

The total office floor space would be 73,730 square metres. The total retail floor space would be 1,852 square metres. The total gross floor area would be 83,368 square metres.

There would be 1,042 off-street car-parking spaces and 538 bicycle parking spaces.

The site area is 16,289 square metres. The floor space ratio of the proposed development is 5.118:1.

The Major Project application was submitted to the NSW Department of Planning on 1 October 2010 by the Winten Property Group and Australand Industrial No 122. The application was made under what was then Part 3A of the *NSW Environmental Planning and Assessment Act, 1979* (the Act). Part 3A of the Act has been repealed but the project continues to be assessed under transitional arrangements set out in Schedule 6A of the Act.

On 26 May 2010 the Director General of the NSW Department of Planning issued Environmental Assessment Requirements for the project. The proponent subsequently provided an Environmental Assessment which was exhibited between 1 December 2010 and 31 December 2010.

In November 2011 the proponent submitted its Preferred Project Report and Response to Submissions to the NSW Department of Planning. The proposal is currently under assessment and upon completion of that assessment and it is understood that the proposal will be referred to the Planning Assessment Commission to exercise the functions of the Minister for Planning in respect of the matter.

About Sonic Healthcare Limited

Sonic Healthcare Limited (SHL) owns Douglass Hanly Moir Pathology (DHM) who operates over 300 pathology collection points throughout the Sydney Metropolitan Area and is the largest private pathology provider in NSW. Pathology samples are taken to the SHL head office at 14 Giffnock Avenue (Figure 1) where they are analysed in the DHM laboratory. There are in excess of 800 staff at the SHL head office. There are 250 courier vehicle movements to and from the SHL head office daily in addition to which there are 50 other medical related deliveries per day. DHM analyse over 20,000 patient's pathology specimens daily.

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SHL's head office premises at 14 Giffnock Avenue comprise a 5 storey plus basement building and associated hard-stand parking areas. Adjoining that area is 95 Epping Road, also owned by SHL and being on the same land title. That area contains a commercial building. The total land area of 14 Giffnock Avenue and 95 Epping Road is 2.606 hectares.



Figure 1: Location of Sonic Health Care properties at 14 Giffnock Avenue and at 95 Epping Road relative to the location of the site of the proposed development

The principal concern of SHL in relation to land use planning controls and initiatives within the locality relates to traffic congestion and the impact of such congestion on the timely delivery of pathology samples to its DHM laboratory at 14 Giffnock Avenue. When delays in delivery of pathology samples occur there is the risk of samples deteriorating to the point that they are unusable. Delays also have an adverse impact on the timeliness of medical decisions and delivery of medical results to patients. When the original sample has deteriorated it is not always possible to obtain a further pathology sample due to the exact nature of the specimen. In any case, the consequences of a pathology sample becoming unusable can impact not only on the patient's diagnosis but also on their future prognosis.

The efficient operation of DHM's pathology business is a vital part of the health system within the Sydney Metropolitan Area as a whole. It is not possible for DHM to manage timing of pathology collections and delivery to avoid certain periods of peak traffic congestion. To do so would require DHM to mandate the times at which patients have their pathology samples taken and would involve intervention into how medical practices are run throughout Sydney. This simply is not tenable.

Already the Macquarie Park precinct is severely congested at peak times and this is causing some interference to the operations of DHM. SHL therefore recognises that it is imperative that strategic planning and land-use decision-making concerning the

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Macquarie Park corridor addresses the chronic traffic-congestion within the precinct, rather than exacerbating that problem.

Strategic planning controls

The NSW Department of Planning and Infrastructure's *Sydney Inner North Subregional Strategy* (the subregional strategy) has, as a key direction, the promotion of Macquarie Park as Australia's leading business park. The unique circumstances of Macquarie Park is that it offers a campus style business park setting and is adjacent to Macquarie University, as well as being provided with a major shopping centre (Macquarie Centre). Macquarie Park is also seen as having excellent transport links via the M2 motorway and the Epping to Chatswood Railway line.

The subregional strategy identifies the Macquarie Park Corridor as having the potential for significant expansion of commercial/office floor space and employment. Existing floor space is estimated to be 800,000 square metres and existing employment levels are estimated to be 32,200. The subregional strategy identifies the potential for a further 900,000 square metres of commercial/office space and an additional 23,100 jobs.

The key issue that has emerged regarding the current attractiveness and future growth of the precinct is traffic congestion. It is generally recognised that, during peak traffic periods, traffic within the precinct is severely congested and as a consequence employees seeking to enter and leave the precinct during those peak periods experience significant delays. In that regard, the project proposal is accompanied by a traffic modelling report by Parsons Brinckerhoff which states that "the model shows that the network is significantly congested in both peak periods". That congestion makes the precinct less attractive and less capable of achieving the vision and goals identified within the subregional strategy.

Ryde Local Environmental Plan 2010 (RLEP2010) is the Principal Environmental Planning Instrument governing development within the precinct. Under RLEP2010, 396 Lane Cove Road is zoned "B3 Commercial Core". SHL's head office site at 14 Giffnock Avenue is similarly zoned, whilst 95 Epping Road is zoned "B7 Office Park". The B3 zoned areas extend along Waterloo Road, Giffnock Avenue and Lane Cove Road. Surrounding areas are zoned B7. The key difference between the two zones in terms of what is permitted is that retailing is permitted within the B3 zone whilst only limited forms of retailing are permitted within the B7 zone.

RLEP2010 includes parking restrictions establishing a maximum off-street car-parking rate for the site of 1 space per 80 square metres.

The height controls under RLEP2010 governing the subject site limit the height of development to 44.5 metres for part of the site addressing Lane Cove Road (including where the proposed 17 storey building is located); 37 metres for that part of the site on the corner of Waterloo Road and Coolinga Street; and 30 metres for that part of the site on the corner of Coolinga Street and Giffnock Avenue. Sonic Health Care's premises are subject to the 30 metre height limit, with part of 95 Epping Road subject to a 22 metre

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height limit. The proposed development involves a 67 metre high building within the 44.5 metre height limited area; and around 40 metre high buildings within the 30 and 37 metre height limited areas.

The floor space ratio controls under RLEP2010 governing the subject site comprise 3:1 for a limited part of the site on adjacent to Lane Cove Road, and otherwise 2:1. It is estimated that the 3:1 zoned part of the site comprises less than one third of the site area and so it is estimated conservatively in the proponent's favour that the average floor space ratio across the site is 2.3:1. The proposed floor space ratio of 5.118:1 is 2.2 times that average FSR amount.

The current controls reflect some concentration of development around Macquarie Park Station. However, the proposed development would be a radical departure for those levels, with the key feature of the proposed development being that it would result in 2.2 times the permitted density.

The Environmental Assessment Report dated November 2010 supporting the concept plan makes reference to Draft Local Environmental Plan 2008 (Amendment 1) which was to increase height and density provisions around Macquarie Park Station. That plan is not a current draft environmental planning instrument. SHL takes strong exception to that draft plan being used as justification for the proposal given that that draft plan is not a public document and has not been adopted. The use of that draft plan as justification for the proposal would be contrary to principles of transparency and due process.

On 27 February 2012, Ryde Council wrote to SHL and advised that on the 25th November 2010 the NSW Department of Planning and Infrastructure issued a gateway determination allowing Ryde Council to exhibit proposed amendments to RLEP2010 which are intended to achieve, through floor space and height incentives, an expanded street and open space network. That Draft LEP is yet to be exhibited and is not available for inspection. There is therefore no basis for consideration of that Draft LEP as part of assessment of the present proposal.

Ryde Development Control Plan 2010 (RDCP2010) also forms part of the strategic planning context for the subject site. RDCP2010 includes specific controls applicable to the Macquarie Park Corridor. Key matters within RDCP2010 relevant to the proposed development are, in broad summary:

- Proposal for Giffnock Avenue to be extended eastwards across Lane Cove Road as a "Type 2 Street";
- Establishment of a "Station Square" at Macquarie Park Station;
- Ground level activity within the Macquarie Park Station precinct to be focussed around Coolinga Street, which would be extended southwards of Giffnock Avenue;
- Provide ground level retail activity;

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- Active frontages and pedestrian through-site links are to be established within the subject site;
- Building heights within the subject site of up to 13 and 17 storeys are identified adjacent to Macquarie Park Station, within the remainder of the site to be 8 storeys. The controls state that "this plan must be read in conjunction with Ryde LEP2008 Amendment 1". It is noted that that Amendment has not been adopted and is not a current exhibited Draft LEP Amendment. Therefore, it is not possible for the DCP controls to be read in conjunction with the LEP Amendment as the DCP would require;
- Preferred access points to the subject site are from Giffnock Avenue;
- Conceptual design of Macquarie Park Square is provided, which includes a consolidated public square adjacent to the station; and
- Density controls are not stated but make reference to the withdrawn Draft RLEP 2008.

Other key strategic planning documents recognised by Ryde City Council include:

- Macquarie Park Growth Model, which is a tool for assessing the traffic impacts of proposed developments;
- Macquarie Park Pedestrian Movement Study 2009, which sets out the need to make Macquarie Park a more permeable precinct for pedestrians;
- Macquarie Park Public Domain Technical Manual 2008;
- Macquarie Park Traffic Study Final Report 2008 further comment provided below;
- Macquarie Park Corridor Masterplan July 2004;
- Macquarie Park Transport Plan 2002; and
- Macquarie Park Structure Plan 2002.

Traffic implications of the proposed development

The traffic modelling report accompanying the project application prepared by Parson's Brickenhoff recognises that the traffic network within the precinct is already significantly congested during AM and PM peak periods. That problem is contributed to by the large grain structure of allotments and associated lack of permeability of access; and a modal split of car to non-car of around 87.5:12.5. The opening of the Epping to Chatswood Rail link has not transformed car-dependency within the precinct, and it is

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understood that a modal split of 60:40 is being targeted so as to accommodate projected growth.

RLEP2010 includes a "proposed access network" which would introduce additional roads to make the precinct more permeable. Current strategic planning initiatives that are yet to reach a draft LEP form are focussed upon improving the implementation of that network.

The development of the site in accordance with RLEP2010 density controls would be anticipated to cause an impact – however the magnitude of that impact is greatly increased by the proposed density being 2.2 times the RLEP2010 density.

Accompanying this submission is a "Traffic and Transport Review" prepared by GHD Pty Ltd dated May 2012, which is a desktop review of the following documents:

- Arup (September 2010), 'Concept Plan 396 Lane Cove Road, Macquarie Park';
- JBA Urban Planning (November 2010), 'Environmental Assessment Report, Concept Plan: Macquarie Park Commerce Centre, 396 Lane Cove Road, Macquarie Park';
- Colston Budd Hunt & Kafes (November 2011) "Transport Aspects of Proposed Commercial Development 396 Lane Cove Road, Macquarie Park" (November 2011); and
- Parsons Brinckerhoff (November 2011), '396 Lane Cove Road Paramics Modelling Report' included as Appendix B to the CBHK report.

The review raises the following issues concerning the above Traffic and Transport assessment documentation:

- 1. The scale of the development is significant in comparison with the existing land use and the type of land use is not similar:
 - a. It would be reasonable to expect that the proposed development, without any travel demand management measures, would impact further on the already congested road network around the Macquarie Park area;
 - b. It would be reasonable to expect a significant impact on a network with limited and restricted access routes; and
 - c. The existing site is a mix of light industrial and commercial/office uses and does not have similar characteristics to the proposed development, yet the trip generation rate for the proposed development is derived from the existing use. There appears to be no reason why this trip generation rate would be applicable to the proposed land use;
- 2. A series of issues associated with the modelling may result in an assessment that suppresses the impact of the development on the

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network. As such, the assessment does not demonstrate that the transport network is adequate to cater for either the opening of the development or in the medium term (10 year horizon):

- a. There is inconsistency between trip generation rates used to assess the development and those stated in the guidelines or recent RMS surveys of the area. To move away from these estimations requires clear justification of the ability to achieve this reduction beyond broad level statements;
- b. The documentation does not provide a clear justification for the adopted distribution of traffic from the development site; and
- c. There are a number of development and network proposals that would impact on the network that supports the development, however these have not been taken into account. A probable increase in traffic on the network may have an impact on the overall operation of the network which has not been factored into the assessment;
- d. The assessment does not undertake a review of either an opening year scenario for the proposed development nor a 10 year horizon year, which would typically be used to demonstrate that the proposed infrastructure is appropriate and can operate satisfactory under future traffic conditions. For a Part 3A major development, it is typically standard practice to assess the impact of the development using at least a 10 year time horizon.
- 3. The scale of the proposed car parking provision implies a greater impact on the road network than has been assessed. There is a risk that due to the size of the parking allocation that more vehicles may choose to travel during peak periods leading to increased congestion along the network:
 - a. The proposal provides no detail about why a parking provision that is more than double the peak hour trip rate is required.
 - b. Although the parking quantum is in line with the Ryde Council's LEP for the Macquarie Park Corridor, it is not clear if the amount of on-site parking is demonstrated to have a minimalist approach as required by the Director General's Environmental Assessment Requirements for 396 Lane Cove.
- 4. The results of the operational assessment implies that there are capacity deficiencies on the wider road network, but details of how this can be addressed or how the development impacts on these areas are not provided in the Assessment documents:
 - a. The Paramics model outputs suggest the development increases delay and congestion substantially, but the commentary does not explore the reasons for these results. The reports do not clearly indicate:
 - i. What is causing the blockage(s) that prevents vehicles from getting to the site (for example, in the AM peak, 16% of traffic generated by the development cannot access the site in the peak hour due to congestion); and

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- ii. What is causing the increase in vehicle hours (for example, model output from the PM peak show that a 2% increase in vehicles causes an 8% increase in vehicle hours)
- b. The in-scope intersections are tightly defined, neglecting other intersections on the wider network where a significant impact may be felt (see Figure 1 which shows the area covered by the detailed MBHK SIDRA analysis, the PB Paramics analysis and key intersections used to access the Macquarie Park area that has been observed in other similar studies to be heavily congested);
- c. It is not clear from the data available how the assumed distribution for generated traffic relates to the routing in and out of the development site. The assumed assignment of traffic may therefore not form a realistic representation of traffic conditions and may underestimate the impact on network performance. The distribution adopted requires further justification;
- d. The review of the SIDRA models raises a number of issues that if investigated further may result in the model outputs showing a greater impact as a result of the development:
- e. The model shows queueing beyond the right turn bay in the AM peak on the Lane Cove Road (north) approach to the signalised intersection of Lane Cove Road with Waterloo Road resulting in both traffic efficiency and safety issues
- f. The SIDRA mode for the Lane Cove Road with Waterloo Road intersection has a lower than surveyed proportion of heavy vehicles;
- g. Left and right turns on the western approach are significantly different when comparing modelled flows with RMS counts; and
- h. Pedestrian movement factors in the SIDRA models remain unchanged in all scenarios even though a large share for non-car modes is assumed.
- 5. There is no justification for how the site may achieve mode share targets of 69% non-car users; in particular, it is not clear how such a high level of access via public transport and non-car modes is to be achieved, given the following:
 - a. The location of the site is a significant distance from the nearest residential development which is low density in character and as a result the number of walk trips to work are likely to be low;
 - b. The current cycle mode share in the LGA is very low and even state targets only forecast a doubling of the share from the existing low base. It is also noted that the terrain to the north and further south does not promote cycling for the masses;
 - c. The proposal does not appraise the suitability of cycle infrastructure in the area nor does it propose to enhance off-site cycle infrastructure to assist in encouraging cycle use;
 - d. Access by rail is limited and only offered via a congested Northern Line, meaning that there are both capacity limitation on the

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current system and that this location is not accessible by rail for a high proportion of the worker catchment;

- e. It is also acknowledged that the North West Rail Link will provide some additional capacity to the rail network; however the limitation downstream at the harbour crossing will continue to be a system capacity constraint.
- 6. The proposal will rely heavily on existing bus services for worker access to the site, but fails to either acknowledge the ability of the current services and network or propose changes that would assist to make this method of travel attractive.
- 7. The development is likely to require significant supporting travel demand management measures and treatments that will help to minimise the impacts. However:
 - a. No mitigation measures that would help the transport network achieve efficiency and safety goals are identified;
 - b. The proposed Travel Plan does not provide a commitment to specific measures or objectives, nor does the Traffic and Transport Assessment justify how the Travel Plan will contribute to the implied mode share targets.
- 8. Although distinct, the areas of concern are cumulative, meaning that the overall assessment may be significantly underestimating the impact of the development if each issue is not addressed or included in the assessment process.



Figure 1: Routes to and From the Development Site and Intersections Assessed. Mapping Source: Google Maps

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A key premise upon which basis the proponent seeks to justify the proposal being 2.2 times the normally permitted density is that it will concentrate employment activity around a public transport node. A further key premise is that the proposal creates publicly usable spaces and facilities around that public transport node and thereby enhances its attractiveness to public transport users, thereby supposedly justifying a doubling of the already concentrated floor space ratio within the subject site. However, the benefits must be weighed against the traffic-related impacts or risks of impacts that arise in consideration of the issues raised by GHD.

The proposal would provide 9 percent of the gross floor area that is targeted for the precinct by 2031 under the Metropolitan Strategy. If the development were to comply with densities under RELP2010, it would contribute around 4.1% towards that target. The justification in terms of the concentration of activity around a transport node would be argued to be that such concentration is preferable to the floor area being more evenly distributed within the precinct because the site has premium accessibility to Macquarie Park Station and should therefore achieve a higher model split. However, the issues raised by GHD give rise to the following questions about that justification:

- Whether the modal split achieved on the development site will be what the documentation suggests it will be given the parking levels proposed and the lack of detailed commitments to non-car travel initiatives;
- Whether even an optimistic modal split would justify the negative traffic-related impacts of the proposed concentration of floor space and of car-parking spaces;
- The significant impacts upon traffic congestion that the proposed concentration of floor space and of car-parking spaces is likely to cause to accessibility to Macquarie Park Station from elsewhere within the precinct; and
- The specific impacts that the proposal will have upon traffic congestion within the precinct and therefore upon the pathology businesses within the precinct which are of critical importance to the health system within the Sydney Metropolitan Area.

There is already a concentration of density around Macquarie Park Station reflected in the RLEP2010 density provisions. In that regard, the subject site is part 3:1 and part 2:1, whilst 14 Giffnock Avenue is subject to a maximum density of 1.5:1 and 95 Epping Road is subject to a maximum density of 1:1. Much of the precinct is limited to 1:1, and the proposed development would have over five times that density, rather than approximately 2.3 times that density under RLEP2010. Whilst the principle of concentrating development around transport nodes is therefore already reflected in RLEP2010, the proposal would more than double that density.

The overconcentration of floor space and car-parking spaces around Macquarie Park Station has the potential to generate additional traffic congestion which will frustrate accessibility between the station and sites further afield, particularly in relation to buses. In that regard, SHL believes that a key initiative to reduce traffic congestion within the precinct that should be promoted by the State Government is for shuttle

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buses to be introduced operating a frequent service around the precinct and providing connections to the station. If there is excessive traffic concentrated around the station that will act as a barrier to easy access by such shuttle buses.

Aside from the possibility of a shuttle bus service, established and potential new bus services will be an important element in achieving the desired modal split for the precinct. The success or otherwise of those bus services is not dependent upon the concentration of development around Macquarie Park Station – however overconcentration of development will generate significant traffic volumes which will hinder bus movements through the precinct. Such traffic congestion will also reduce ease of access by pedestrians as they seek to cross Waterloo Road, Coolinga Street and Giffnock Avenue.

In relation to the benefit in establishing a public plaza, the proposed public plaza addressing Waterloo Road is within a setback area that would be required regardless of whether it serves as a public plaza. That plaza, and the proposed through site links and provision of retail activity at street level, are all features that will benefit the retail component of the proposal specifically and which will be of general benefit to the development. Those features could be expected of a development that achieves RLEP2010 density requirements, which are already more than double the densities achievable for most properties within the precinct. It is acknowledged that the successful implementation of those features will contribute to the attractiveness of using Macquarie Park Station but it is contended that the RLEP2010 floor space ratios are sufficient to justify the provision of those benefits particularly given that those benefits will contribute to the commercial success of the development.

The proponent's justification for the proposed level of density

The Environmental Assessment Report submitted by the proponent presents the following arguments in favour of the proposed level of density that is 2.2 times the RLEP2010 density, and those arguments are responded to as follows:

• The report makes reference to a bonus FSR scheme that was part of Draft RLEP 2008 (Amendment 1).

<u>Comment</u>

Draft RLEP 2008 (Amendment 1) is understood to have proposed an average floor space ratio across the site of 3.75:1, whereas the proposal is for 5.12:1. That scheme has not proceeded and should in no way be considered as justification for the proposal (noting that the proposal exceeds that FSR level in any case) because it has not withstood the rigours of the process required to become adopted.

• The proposal is consistent with Ryde Development Control Plan;

<u>Comment</u>

In normal circumstances (ie for a Part IV application) a Local Environmental Plan would take precedence over a Development Control Plan to the extent of any inconsistency. It is noted that the density controls within the Development Control

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Plan make reference to the abandoned draft LEP bonus scheme. To that extent the Development Control Plan density provisions cannot be taken to be rational and cannot be given weight. The RLEP2010 would ordinarily be relied upon.

Whilst the process under which this proposal has been applied for does allow approval of a proposal that is non-compliant with RLEP2010, RLEP2010 must be regarded as forming the most consistent and reliable guide as to what is the appropriate form of development of the site in terms of its density and therefore on broad merit the RLEP must be given significant weight. For reasons set out earlier in this report, it is not considered that the circumstances put forward by the proponent are justification for the density that is proposed.

• The bulk and scale of the development is acceptable, and other impacts can be managed and are outweighed by the public benefits of the proposal.

<u>Comment</u>

There are significant issues raised in the attached submission by GHD concerning the traffic and transport implications of the massively increased densities that are proposed. It is already acknowledged by the proponent that traffic within the locality is frequently gridlocked during peak times. The proposal will worsen that situation significantly.

It is acknowledged that even an RLEP2010 compliant proposal would have the potential to worsen the traffic situation. However, the present proposal more than doubles that density and as such the proposal would have an impact upon traffic congestion that would massively outweigh the public benefits. The extent of those traffic related impacts would be likely to be so great as to interfere with bus movements and accessibility into and out of the station precinct from surrounding areas.

The proposal and its associated traffic congestion would also specifically impact upon the ability of DHM to move its pathology collection vehicles into and out of its pathology laboratories at 14 Giffnock Avenue. The proposal would therefore adversely impact upon the viability of that operation and would be detrimental to the wider public and the health system within the Sydney Metropolitan Area, noting that SHL is the largest private pathology service provider in NSW and that the second largest such provider, Laverty Pathology, is located 100 metres to the west.

• The proposal will provide high-grade commercial office space.

<u>Comment</u>

An RLEP2010 compliant proposal would also be able to deliver high-grade commercial office space.

• The proposed level of concentration of commercial space around Macquarie Park Station is consistent with the State Plan and subregional strategy.

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<u>Comment</u>

The current RLEP2010 has already been adopted having regard to the State Plan and subregional strategy and already reflects the appropriateness of concentrating development around transport nodes. The proposal goes beyond that expectation and proposes more than double what is an already enhanced density. Such a level of overdevelopment is unnecessary to achieve consistency with the State Plan and subregional strategy.

• Environmental Planning Instruments such as RLEP2010 do not apply to concept plans such as proposed. The Minister may, but is not required to, consider RLEP2010.

Comment

It is agreed that consideration of RLEP2010 is discretionary for the present proposal. However, in terms of broad merit consideration, RLEP2010 represents the most rigorous guide as to what is an appropriate and orderly development of the site. The case in favour of the proposed level of density is based principally on the public benefits of provision of a plaza, through site links and retail activity. Those benefits are however proposed to be provided through use of spaces that would be part of the development in any case, such as the setback from Waterloo Road and the space between buildings. The additional benefits of the proposal in embellishing and making publicly accessible those areas are not so great as to justify the proposed density. The provision of retail activities at ground level might be expected to occur regardless and in any case can be converted at a later time to office space under the General Commercial and Industrial Code. Furthermore, the provision of convenient access to the station through the proposed retail component will benefit the development and so should not be regarded as requiring an incentive. Therefore, there is nothing about the proposed development that justifies the significant departure from RLEP2010, which serves as the most rigorous guide as to what is the appropriate form of development available to the consent authority.

• Section 5.3.7 of Council's DCP states that Council may consider granting development consent in excess of height and density controls where the development provides specified community benefits.

Comment

That provision has been superseded by Development Control Plan 2010, which does not contain that section number. The current density controls within clause 6.1.2 make reference to an LEP amendment that does not exist and those controls can therefore not be regarded as being rational or well-founded. For the purposes of drawing upon a consistent, rational planning framework, RLEP2010 provides an appropriate point of reference and should not be overridden by the DCP provisions.

• The proposal will increase connectivity and access to and from the station which will encourage public transport usage and reduce car dependency.

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<u>Comment</u>

The level of increased connectivity and access to and from the station could be achieved with a RLEP2010 compliant proposal having a floor space ratio of around 2.3:1. The proposed density of over 5:1 will frustrate access to and from the station by increasing the already unacceptably high levels of traffic congestion, with particular impacts to bus services.

• The proposal will contribute to a significant proportion (9%) of the targeted growth for the precinct by 2031 and is located in the best place within the precinct for that growth.

<u>Comment</u>

The proposal overly concentrates the projected growth within the precinct to the subject site and will introduce significant traffic congestion specifically around the station where ease of access to and from the station, particularly for buses, is strategically important.

• RLEP2010 was a direct conversion of previous planning instruments to the template LEP. The LEP was not the result of detailed analysis and did not review the appropriateness of the planning controls. Draft LEP 2008 (which no longer exists) better reflects the appropriate development of the site but could not be adopted for reasons unrelated to planning merits of the then proposed densities.

<u>Comment</u>

To the extent that there may be cause for dissatisfaction about the current planning controls, the appropriate response to that is for those planning controls to be reviewed through a process involving appropriate studies, community consultation and review. Draft LEP 2008 has ceased to exist and the reasons for that are that it has not withstood the rigours of the normal processes for the adoption of new planning controls.

Ryde Council is presently reviewing the strategic planning controls within the Macquarie Park precinct and will exhibit a Draft LEP in due course. That Draft LEP is understood to contain mechanisms that will seek to deliver the access network to make Macquarie Park a more permeable precinct and thus relieve the chronic traffic congestion that is frustrating the precinct's success. The appropriate basis upon which to base a decision concerning the densities within the precinct will be to await the exhibition, consideration and adoption of the draft planning controls. To give weight to a former Draft LEP that no longer exists would be a speculative exercise rather than a rational decision. Given the potential impact of the proposed density upon the operations of DHM and therefore to the health system within Sydney more generally, a decision concerning the density of the proposed development must be made on rational, rather than speculative, grounds.

• The project architect has prepared a proposal based upon current controls showing that there is an underutilisation of the available height limit as a consequence of the lower density levels that would be available. The proposal would represent an underutilisation of land in comparison to other transit

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oriented precincts such as at St Leonards, Chatswood, Parramatta, Liverpool, Penrith, Wollongong and Gosford.

<u>Comment</u>

In relation to the project architect's modelling, it should be noted that the current proposal proposes a floor space ratio and a height that significantly exceed current controls. Therefore, even if it were established that the current height controls are unworkable in relation to the current density controls, that would not serve as justification for the present proposal which exceeds both.

Macquarie Park has evolved as an office-park type precinct and associated with that are different expectations to those associated with the named urban centres. How Macquarie Park evolves from its inception to accommodate targeted growth levels is yet to be fully resolved and will require the careful implementation of a system that will deliver an access road network and establish a level of permeability that is required to address the chronic traffic congestion that occurs. The levels of development in the named precincts are reflective of the mixed commercial/retailing and residential character of those precincts. For example, nearby Chatswood and St Leonards contain significant levels of residential development and Chatswood contains major shopping facilities, so that it works effectively as a high density precinct. In comparison, there is no major retail development in proximity to Macquarie Park Station. The application of the density levels achieved in Chatswood and St Leonards to the Macquarie Park Station precinct is therefore not justified.

• The proposed density levels are needed to create a retail environment that will deliver safety for pedestrians using the station.

<u>Comment</u>

A development having a density of around 2.3:1 could equally deliver such an outcome.

• 78 Waterloo Road, Macquarie Park was approved by Ryde Council in 2008 with a density of 3.11:1 although it is subject to a maximum permissible FSR under RLEP2010 of 1.5:1. That site is one kilometre from the station. This demonstrates that the built form under Amendment 1 is already occurring and that Council supports that departure from current FSR controls.

<u>Comment</u>

It has not been investigated for the purposes of the present submission what the circumstances of that approval were, noting that it predates the RLEP2010 controls. In the absence of such an investigation, it may not be concluded that that decision provides any supportive precedence for a general departure from the current planning controls. It is noted that that site is only 400 metres from Macquarie University Station and therefore, although it is one kilometre from "the station". It is also noted that that site is only 200 metres from Macquarie Shopping Centre. Therefore, there are differences between that site and the subject site that mean that

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the difference between the approved floor space on that site and the RLEP2010 controls for that site do not justify the exercise of a similar rate of departure for the subject site.

• The proposed development will create a dramatic presentation to the Macquarie Park gateway, which is desirable in terms of drawing attention to the precinct and attracting further development.

<u>Comment</u>

The demand for development within the Macquarie Park precinct will be driven by the attractiveness of the precinct to potential tenants and does not require an iconic building to drive investment. Furthermore, a gateway treatment could be achieved by a building at the corner with a greater height than buildings generally within the precinct but with a smaller footprint than the proposed corner building. Furthermore, that gateway treatment could be achieved or supplemented in other ways, such as through artwork and/or an interesting building façade. It is not considered that the need for a gateway treatment should drive the approval of a building with over double the RLEP2010 density levels.

• Similar landmark building envelopes, with a height up to 40 metres higher than the proposed maximum height have been approved near to Macquarie University Station within the Macquarie University precinct.

<u>Comment</u>

The developments referred to have not been investigated for the purposes of the present report and it is therefore not known to what extent those approvals are comparable to the present proposal. It is noted, however, that the Macquarie University Station precinct has more of the characteristics of other major centres in that it contains residential development in close proximity; a major retail centre; and a major educational establishment. There is also a more direct connection to the M2 motorway from than for the proposed development and on initial consideration it would therefore appear that development within the Macquarie University precinct would be less likely to generate significant traffic-related impacts that the proposed development.

• The proposal complies with zone and control objectives.

Comment

Clause 4.4 of RLEP2010 sets out objectives for the floor space ratio control, including the achievement of consolidation of development around railway stations, with the highest floor space ratios at the station nodes. The current RLEP2010 density controls already achieve that objective, whereas the proposed development would result in 2.2 times that already enhanced density and would unacceptably concentrate density at a specific point and cause unacceptable traffic-related impacts.

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Conclusion

The proposed development would contain 83,368 square metres of floor space on a 16,289 square metre site, with a floor space ratio of 5.118:1. The floor space ratio that would normally apply to the site would be 2:1 and 3:1, with an overall FSR of around 2.3:1. The proposed development would result in over double the normally permitted density. That normally permitted density is already more than double the density that is permitted in much of the precinct under RLEP2010.

The proposal includes 1,042 off-street car-parking spaces within basement levels. Traffic within the Macquarie Park precinct is already significantly congested during peak times. The proposed loading of traffic onto the existing network will exacerbate existing traffic congestion. This submission is accompanied by a "Traffic and Transport Review" prepared by GHD Pty Ltd which raises multiple issues related to the proposal and its supporting documentation. From those issues, it is considered that the consent authority cannot be satisfied that the proposal will not cause unacceptable trafficrelated impacts within the locality.

The traffic-related impacts of the proposal will significantly affect the pathology operations of DHM, the largest private pathology provider in NSW, as well as the operations of the second largest private pathology provider in NSW who are located nearby. Those impacts may cause an unacceptably high number of deteriorated pathology samples, with very significant potential impacts to patients and to the health system within the Sydney Metropolitan Area as a whole. The pathology providers need efficient access to the precinct by their courier vehicles. Such efficient access is already reduced by existing levels of traffic congestion and that situation may worsen to the point that the continuation of DHM's pathology operations at Macquarie Park may become untenable.

In those circumstances, the proposed density levels are considered to be unacceptable. The proponent seeks to justify the proposed density levels principally on the basis that the development will deliver benefits to the precinct. However, those benefits such as the provision of civic space and through site links utilise space that would be likely left undeveloped within the site and are insufficient to warrant the dramatic departure from normal RLEP2010 density levels that are proposed, particularly as they are of benefit to the proposed development in any case.

Whilst the consent authority is able to disregard RLEP2010 because the proposal was submitted under former Part 3A of the Act, the consent authority should not do so given that RLEP2010 represents the most consistent and rational point of reference available as to what are appropriate levels of development within the precinct. RDCP makes reference to a former Draft Environmental Planning Instrument that no longer has that status. To the extent to which RDCP may be regarded as supportive of the scale of the proposed development, RDCP should be set aside because it may not be regarded as rational, given that it references a non-existent draft planning instrument.

The planning controls within the precinct are under review and any proposal of the subject site that seeks to depart from the provisions of RLEP2010 should withheld

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pending the advertising, assessment and possible gazettal of RLEP2010 amendments that may eventuate.

Please let me know if you have any questions.

Yours faithfully,

Matthew Benson Principal – MB Town Planning

Sonic Healthcare

396 Lane Cove Road Traffic and Transport Review

May 2012

This Traffic and Transport Review ("Report"):

- 1. has been prepared by GHD Pty Ltd ("GHD") for Sonic Healthcare Limited;
- 2. may only be used and relied on by Sonic Healthcare Limited;
- 3. must not be copied to, used by, or relied on by any person other than Sonic Healthcare Limited without the prior written consent of GHD;
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GHD and its servants, employees and officers otherwise expressly disclaim responsibility to any person other than Sonic Healthcare Limited arising from or in connection with this Report.

To the maximum extent permitted by law, all implied warranties and conditions in relation to the services provided by GHD and the Report are excluded unless they are expressly stated to apply in this Report.

The services undertaken by GHD in connection with preparing this Report:

- were limited to those specifically detailed in sections 1.1 and 1.2 of this Report;
- did not include any site visits, traffic counts analysis or additional traffic modelling..

The opinions, conclusions and any recommendations in this Report are based on assumptions made by GHD when undertaking services and preparing the Report ("Assumptions"), including (but not limited to):

- Traffic generation rates
- Non car mode share
- Network performance or level of service

GHD expressly disclaims responsibility for any error in, or omission from, this Report arising from or in connection with any of the Assumptions being incorrect.

Subject to the paragraphs in this section of the Report, the opinions, conclusions and any recommendations in this Report are based on conditions encountered and information reviewed at the time of preparation and may be relied on until 31st December 2012, after which time, GHD expressly disclaims responsibility for any error in, or omission from, this Report arising from or in connection with those opinions, conclusions and any recommendations.

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1. Introduction

1.1 Purpose of the Review

GHD have undertaken a desktop review of the traffic and transport issues associated with the planning documentation that support the development proposal for 396 Lane Cove Road.

This review has been documented to form an Addendum to a submission being prepared by MB Town Planning on behalf of Sonic Healthcare to the Department of Planning and Infrastructure. This short technical report concentrates on traffic and transport issues highlighted in the review of documentation supporting the proposed development.

The review focuses on the appropriateness of the appraisal process, its extent and identifies network operational issues that could potentially compromise the operation and viability of Sonic Healthcare.

1.2 Limitation of the Review

This report was prepared under considerable time constraints which impact on the analysis and outputs. In view of this, the assessment undertaken has been a strategic review only, relying on existing documentation and reports to provide supporting information. The technical planning reports reviewed as part of this assessment include:

- Arup (September 2010), 'Concept Plan 396 Lane Cove Road, Macquarie Park'
- JBA Urban Planning (November 2010), 'Environmental Assessment Report, Concept Plan: Macquarie Park Commerce Centre, 396 Lane Cove Road, Macquarie Park'
- Colston Budd Hunt & Kafes (November 2011) "Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, Macquarie Park" (November 2011) includes an analysis of the traffic impacts of the proposed development.
- Parsons Brinckerhoff (November 2011), '396 Lane Cove Road Paramics Modelling Report' – included as Appendix B to the CBHK report

1.3 Report Structure

The report is structured as follows:

- Section 2: Existing Situation.
- Section 3: The Proposal.
- Section 4: Review of the Traffic and Transport Assessment.
- Section 5: Summary of Findings.

2. Existing Situation

This section details the following:

- Operational requirements of Sonic Healthcare; and
- The existing use of the 396 Lane Cove Road site; and
- The existing transport access to the transport network.

2.1 Sonic Healthcare

Sonic Healthcare owns and runs Douglass Hanly Moir (DHM), a pathology laboratory in Macquarie Park. The location of the DHM pathology laboratory and the site of the proposed development are shown in Figure 1.

Figure 1: Location of DHM Pathology Laboratory and Proposed 396 Lane Cove Development site¹



¹ Mapping Source: Google Maps

2.1.1 Site Operations

DHM Pathology Laboratory is an established Macquarie Park business, with in excess of 800 staff, which relies on the surrounding road network and efficient and reliable access to Macquarie Park and Giffnock Avenue to undertake the following:

- Delivery of approximately 20,000 specimens to the Pathology Laboratory daily.
 Each patient has approximately 3 5 tests performed on their specimen.
- 250 courier movements on a typical day with an additional 50 medical-related deliveres.
- Access arrangements for couriers are shown in Figure 2. There are 2 entry and exit points to the building. Couriers and deliveries generally enter and leave via the driveway that is closest to the train station (to the east). The other drive is generally used by staff and visitors



Figure 2: Access arrangements for Couriers to DHM Pathology Lab

2.1.2 Business Accessibility Needs

The following provides a broad outline of business needs that are directly associated with the performance of the road network

- Deliveries from couriers and the time specified for specimens to arrive at the laboratory are set by doctors and their patients' health requirements and are not in the control of Sonic Healthcare.
- Travel times both to and from the pathology laboratory are critical as delays in either leg of the journey can amount to samples deteriorating to the point that they are unusable.

- 95% of specimens are time critical and every minute over and above current network travel times may mean that more specimens will not meet the acceptable testing requirements and as a result will be rejected.
- Currently 1% of the samples are unusable.
- Samples that are rendered unusable directly impacts on both patient care and the viability of the business.

2.2 The Development Site

2.2.1 Location

The location of the proposed 396 Lane Cove development is shown in Figure 1. The development shares similar access arrangements to DHM pathology labs with direct access to the public road network via an access point on Giffnock Avenue and Coolinga Street.

2.2.2 Current Site Characteristics

Currently the site has the following attributes²:

- 2 storey light industrial buildings (3652m² GFA Industrial, 4376m² Commercial/office)³;
- Parking for 153 cars; and
- Vehicular access via Waterloo Road, Coolinga Street and Giffnock Avenue.

2.3 Existing Transport Conditions

2.3.1 Road Network

Access to DHM pathology labs is via Giffnock Avenue and Coolinga Street; both roads are one lane in each direction and perform a local access road function. The intersection between Giffnock Avenue and Coolinga Street is priority-controlled with Coolinga St forming the major arm. Access routes are shown in Figure 2 and current intersection controls are presented in Figure 3

² Colston Budd Hunt & Kafes Pty Ltd, (November 2011), 'Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, MacQuarie Park', page 3

³ JBA Urban Planning (November 2010), 'Environmental Assessment Report, Concept Plan: Macquarie Park Commerce Centre, 396 Lane Cove Road, Macquarie Park', page 23

Figure 3: Control types for assessed intersections



Coolinga Street is accessed via Waterloo Road and Lane Cove Road. Lane Cove Road is a major arterial road carrying regional traffic and providing access to major employment centres, such as Macquarie Park along the MetRoad 3 route. The intersection between Coolinga Street and Waterloo Road is a left-in left-out priority arrangement.

SIDRA analysis undertaken by Colston Budd Hunt & Kafes Pty Ltd (CBHK) suggests that "the intersection of Lane Cove Road and Waterloo Road operates at capacity in the weekday morning and afternoon peak periods" and the Waterloo Road/Coolinga St and Giffnock Avenue/Coolinga Street is operating with acceptable delays and spare capacity.⁴ These results are shown graphically in Figure 4 and Figure 5 for AM and PM peak respectively. It should be noted that the LOS reported for these intersections remains unchanged in the report for this 'with development' scenario.

⁴ Colston Budd Hunt & Kafes Pty Ltd, (November 2011), 'Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, MacQuarie Park', page 8

Figure 4: CBHK SIDRA Model results – Base – AM peak



Figure 5: CBHK SIDRA Model results - Base - PM peak



The Macquarie Park Corridor Paramics Model (MPCPM) which includes all key intersections within Macquarie Park and a 7km section of the M2 was developed by Bitzios for AM and PM peak hours. The model is calibrated to 2008 data. MPCPM has been recalibrated by Parsons Brinckerhoff (PB) using counts from 2010 to test the impact of the 396 Lane Cove Road development. The PB report states that *"the model shows that the network is significantly congested in both peak periods. This reflects*

the on-ground traffic conditions within Macquarie Park^{*6}. Results from the base Paramics modelling are shown in Figure 6 and Figure 7 for AM and PM Peaks respectively.



Figure 6: Paramics results – Base – AM Peak





⁵ Parsons Brinckerhoff (November 2011), '396 Lane Cove Road – Paramics Modelling Report', page 3.

2.3.2 Public Transport

The development site is located close to Macquarie Park Railway Station and Macquarie Park is also served by a number of local and regional bus services, contributing to a good level of public transport provision.

2.3.3 Active Transport

Pedestrians are catered for by roadside paths and via traffic controlled intersections. There are few cycling facilities in the vicinity of the development site.

3. The Proposal

3.1 Proposed Development

Winton Property Group and Australand Industrial propose the demolition of existing structures at 396 Lane Cove Road and the establishment for four (4) commercial towers. The proposal consists of the development of a high density commercial development in Macquarie Park on a site adjacent to the Macquarie Park rail station and in proximity to Lane Cove Road.

3.1.1 Proposed Development Characteristics

The proposed development is expected to have the following attributes⁶:

- 83,368m² GFA of commercial/office space (1,852m² retail, 81,516m² Commercial/office)²;
- A total employment population estimated to be approximately 3,300 people⁷.
- Vehicular access via Giffnock Avenue (car park and loading dock) and Coolinga Street (car park);
- 538 bicycle spaces, situated in the car park;
- 1042 car parking spaces (based on Ryde LEP 2010 rate of one parking space per 80m² GFA)⁸;
- The replacement of Giffnock Avenue/Coolinga Road intersection to a roundabout⁹ is a change to the road network in the vicinity of the development site that has been suggested but not a commitment.

3.2 Network Impacts

Figure 8 and Figure 9 show the results of the Paramics assessment graphically for the AM and PM peak periods, respectively. They can be compared to Figure 6 and Figure 7 to show the impact of the development according to the Paramics modelling.

⁶ Colston Budd Hunt & Kafes Pty Ltd, (November 2011), 'Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, MacQuarie Park', page 11-12

⁷ Colston Budd Hunt & Kafes Pty Ltd, (November 2011), 'Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, MacQuarie Park', page 24

⁸ Ryde Council, (2010) 'Macquarie Park Corridor Parking Restrictions Map - Sheet MPP_005. Available online, <u>http://www.legislation.nsw.gov.au/map/6700_CON_MPP_005_010_20100412.pdf?id=8fcc1125dd85-c9aa-cc53-98fec0bd0b8d</u>

⁹ Colston Budd Hunt & Kafes Pty Ltd, (November 2011), 'Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, MacQuarie Park', page 18



Figure 8: Paramics Modelling Results – With Development – AM Peak

Figure 9: Paramics Modelling Results – With Development – PM Peak



3.3 Planning Process

Our understanding of the planning submission process to date is as follows:

 26 May 2010; the Director General issued Environmental Assessment Requirements for the project;

- 1 October 2010; Winton Property Group and Australand Industrial No 122 P/L submitted a Major Project Application to the NSW Department of Planning for 396 Lane Cove Road for the demolition of existing structures and the establishment for four (4) commercial towers and associated basements;
- The Environmental Assessment was exhibited between 1 December 2010 and 31 December 2010;

4. Review of the Traffic and Transport Assessments

The extent and adequacy of the previous assessments in addressing the above requirements is covered as part of Section 4. This section is sub divided into the following:

- Understanding of Development Scale;
- Typical Assessment Requirements;
- Non-car mode shares
- Parking Provision;
- Trip generation;
- Trip distribution;
- Traffic assignment;
- SIDRA model review; and
- Mitigation measures.

The review presented in the following sub sections highlights issues, which may have a material effect on the conclusions of the transport assessment for the proposal.

4.1 Understanding of Development Scale

Table 1 shows the comparison between the existing and proposed land uses at the Development Site. The proposal intends to increase the number of parking spaces by a factor of 7 and a commercial land use area increase of a factor of 19, approximately.

Table 1 Comparison between Existing and Proposed Scale of Development

	Size	Parking spaces
Existing Site use	2 storey light industrial buildings (3,652m ² GFA Industrial, 4,376m ² Commercial/office) ¹⁰ ;	153
Proposed Site use	83,368m ² GFA of commercial/office space (1,852m ² retail, 81,516m ² Commercial/office) ¹¹	1042

¹⁰ JBA Urban Planning (November 2010), 'Environmental Assessment Report, Concept Plan: Macquarie Park Commerce Centre, 396 Lane Cove Road, Macquarie Park', page 23

¹¹ Colston Budd Hunt & Kafes Pty Ltd, (November 2011), 'Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, MacQuarie Park', page 3

The scale of the proposed development is significant in comparison to the existing land use and based on the findings of the PB report, it would be reasonable to expect that the proposed development would impact further on the already congested road network around the Macquarie Park area

4.2 Typical Assessment Requirements

The proposal is presented as part of a Part 3A development application. Typically, developments of this scale would be expected to include a series of considerations to mitigate any adverse effects of the development. A number of such requirements are discussed in this section.

4.2.1 Cumulative Impacts

RMS' Guide to Traffic Generating Developments states as part of the Procedures and Key Parameters that the Impact of the Proposed Development needs to recognise "other proposed developments in the vicinity, their timing and likely impact, if known"¹².

The traffic modelling completed for this assessment does not recognise any other proposed developments in or around Macquarie Park or transport projects that may influence traffic conditions on opening of the development. Nor does it include this in a future planning horizon year to validate the capability of current community transport network investments. Specifically, it does not take account of the upgrade of the M2 or likely infill development in and around Macquarie Park.

Issue 2

No other proposed developments or infrastructure changes are accounted for in the traffic modelling. Changes to the network will affect traffic distribution and a probable increase in traffic on the network may have an impact on the overall operation of the network. The assessment is therefore not correctly gauging the impact of the development in the future. As a result, the impact of the development on the wider road network may be greater than reported.

4.2.2 Horizon Year Modelling

The assessment does not undertake a review of either an opening year scenario for the proposed development nor a 10 year horizon year, which would typically be used to demonstrate that the proposed infrastructure is appropriate and can operate satisfactory under future traffic conditions. For a Part 3A major development, it is typically standard practice to assess the impact of the development using at least a 10 year time horizon.

¹² RTA (2002), 'Guide To Traffic Generating Developments', page 2-7

The assessment does not demonstrate that the transport network is adequate to cater for the either the opening of the development or in the medium term (10 year horizon) even under the proposed reduced traffic generation rates. It is expected that traffic will grow significantly along Lane Cove Road in the future and have direct impact on access to the site.

4.2.3 Modelling Extent

PB carried out an assessment of the scope of influence of the development using City of Ryde's (CoR) TIA process. If the development traffic (either directly or via causing existing traffic to reroute) causes an increase of greater than 10% in total vehicle movements through an intersection, then the intersection is in-scope and therefore should be assessed in detail. Although strictly adhering to guidance, the figure of 10% is arbitrary and in a congested network an additional increment of traffic less than 10% of the total movements may potentially have a considerable impact on the intersection.

Figure 10 shows the location of the intersections included in the assessment together with key intersections used to access the Macquarie Park area that has been observed in other similar studies to be heavily congested.



Figure 10: Routes to and From the Development Site and Intersections Assessed

Mapping Source: Google Maps

The JBA Environmental Assessment Report¹³ defines the following as key intersections in the study area, which have not been considered as part of later assessments:

- Lane Cove Road/Talavera Road

¹³ JBA Urban Planning (November 2010), 'Environmental Assessment Report, Concept Plan: Macquarie Park Commerce Centre, 396 Lane Cove Road, Macquarie Park', page 47-48

- Lane Cove Road/M2 Motorway
- Waterloo Road/Khartoum Road

By strictly adhering to CoR's TIA guidance when defining the in-scope intersections, the assessment may be neglecting other intersections on the wider network where the development may cause a significant impact. In particular, a number of critical intersections highlighted in the JBA Environmental Assessment Report were not reported on in the PB or CBHK reports. This is a particular issue at intersection carrying high levels of traffic, such as those intersections situated along Lane Cove Road.

Results from the modelling are presented in Table 2.

		АМ			РМ	
	Base	+ Dev	% diff	Base	+ Dev	% Diff
Number of vehicles	30,684	31,212	2%	32,121	32,644	2%
Vehicle Hours	3,962	4,026	2%	4,546	4,903	8%
Vehicle km	128,555	130,126	1%	132,475	134,558	2%
Total unreleased vehicles	167	203	22%	764	738	-3%
Trips not able to enter development	-	55	-	-	25	-
Trips not able to exit development	-	0	-	-	4	-

Table 2 Results from the PB Paramics Modelling¹⁴

Table 2 shows that the development adds 2% more traffic onto the entire modelled road network. 'Vehicle hours' measures the total amount of time that the vehicles spend on the network getting from origin to destination.

¹⁴ Parsons Brinckerhoff (November 2011), '396 Lane Cove Road – Paramics Modelling Report', page 22-26.

The network is much wider than the local area around the development, and a 2 per cent increase to network wide traffic would result in a considerably greater percentage increase in trips nearer the development.

In the AM peak model, 55 vehicles are not able to access the development site in the modelled hour due to congestion on the road network. This equates to 16% of inbound traffic predicted to access the site during the peak period. The cause of the issue is likely to impact on DHM's operations, which would share similar access routes to the proposal.

In the PM peak model, a 2% increase in vehicles causes an 8% increase in vehicle hours.

Issue 6

The report does not clearly indicate:

- what is causing the blockage (identified in modelling as not released vehicles) in the network that prevents vehicles from getting to the site; or
- what is causing the increase in vehicle hours in the PM peak.

What is clear from the information presented is that the development has an impact on network wide travel times and delay. This is observed once additional vehicles relating to the development are introduced and assigned to the network and results in a disproportionately high impact on total delay network wide.

4.2.4 Integrating Land Use and Transport Policy (Draft SEPP 66)

The Integrating Land Use and Transport (ILUT) policy package was released in September 2001. The policy is a major State Government initiative to support sustainable development in the Greater Sydney Metropolitan Area. It provides policy directions, draft legislation and guidelines on managing travel demand through the location and design of land uses.

The policy pursues the integrated transport approach that highlights the need to plan for:

- 1. Transport and transport choice not just traffic;
- 2. Accessibility not just mobility;
- 3. Enhancing the viability and vitality of centres and their jobs; and
- 4. Protecting community investment in transport and other infrastructure.

The policy applies to the Greater Sydney Metropolitan Area and to developments of more than 1500m². Thus the development proposed would be subject to the policy.

It appears that the proposal concentrates on planning item 1 and possibly 3, but fails to demonstrate the ability of the existing and future networks to cater for the forecast demand or how the site can achieve the non-car mode targets. It also does not appear to address how it proposes to protect and support the safe and efficient operation of the transport network (community investment in transport).

4.3 Non-car mode shares

The development assumes a very high level of public and active transport (69% in favour of public transport and non-car modes)¹⁵ mode share. The documentation asserts that the development site is in close proximity to Macquarie Park train station, that the site will incorporate pedestrian and cycling links and that 538 cycle spaces with end of trip facilities will be supplied.

However, the NSW Planning Guidelines for Walking and Cycling states:

Potential walkability is defined by a circle of radius 400m or 5 minutes walk around a centre, and 800m or 10 minutes walk around a centre that includes a public transport stop. Actual walkability is defined by drawing a line along all streets up to 400m or 800m distance and by identifying all sites accessible to that line¹⁶.

Work carried out by GHD for trips by mode in LGAs in proximity to Macquarie Park (based on Household Travel Survey data provided by BTS) showed that less than 1% of all journeys are undertaken by bicycle and less than 0.5% for journey to work (2006/7 data).

City of Sydney, in their Cycle Strategy and Action Plan (2007-17) set targets to increase the number of bicycle trips made in the City of Sydney, as a percentage of total trips, from less than 2% in 2006 to 5% by 2011, and to 10% by 2016.

The development proposal for 3,300 staff includes provision for 538 cycling spaces, which implies an expected mode share for cycling of 16%. This is considerably higher than the probable existing or baseline rate of less than 1%. By way of comparison, in attempting to meet the targets set, City of Sydney is providing a series of infrastructure improvements such as a coordinated trunk network of cycling routes and complementary strategies.

¹⁵ JBA Urban Planning (November 2010), 'Environmental Assessment Report, Concept Plan: Macquarie Park Commerce Centre, 396 Lane Cove Road, Macquarie Park', page 46

¹⁶ NSW Planning Guidelines for Walking and Cycling (2004), p19

It is not clear how such a high level of access via public transport and non-car modes is to be achieved. Given the following:

- The location of the site is at least 400m from the nearest residential development and that development is low density, the number of walk trips to work are likely to be low.
- The current cycle mode share is very low and even state targets only forecast a doubling of the share from the existing low base. It is also noted that the terrain to the north and further south does not promote cycling for the masses.
- The proposal does not appraise the suitability of cycle infrastructure in the area nor does it propose to enhance off-site cycle infrastructure to assist in encouraging cycle use and meeting mode share targets.
- Access by rail is limited and only offered via a congested Northern Line, meaning that there are both capacity limitation on the current system and large areas where workers will not be able to conveniently take the train.
- It is also acknowledged that the North West Rail Link will provide some additional capacity to the rail network; however the limitation downstream at the harbour crossing will continue to be a system capacity constraint.

RMS' Guide to Traffic Generating Developments suggests that *"options for extensions and changes to bus routes and bus stops"*¹⁷ to service the site should be explored. This does not appear to have been undertaken.

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The proposal will rely heavily on buses for worker access to the site, but fails to either acknowledge the ability of the current services and network or suggest changes that would assist to make this method of travel attractive.

4.4 Parking Provision

The Director General's Environmental Assessment Requirements for 396 Lane Cove, issued on 26^{th} May 2010 state in Section 5 that:

"The EA must justify the amount of on-site car parking for the proposal having regard to local planning controls, RTA guidelines and the site's close proximity to public transport.... [and] Demonstrate that a minimalist approach to car parking provision is taken based on the accessibility of the site to public transport."

¹⁷ RTA (2002), 'Guide To Traffic Generating Developments'

¹⁸ Director Generals Envirinmental Assessment Requirements (26th May 2010), Available online: <u>https://majorprojects.affinitylive.com/public/4258d1c419cfb8bebcc0dc9773b6ca21/DGRs%20issued%2026</u> .05.10.pdf

Although the parking quantum is in line with the Ryde Council's LEP for the Macquarie Park Corridor, it is not clear if the amount of on-site parking is demonstrated to have a minimalist approach. There is a risk that due to the size of the parking allocation and its convenience to users that more vehicles may choose to travel during peak periods leading to increased congestion along the network. Note that the trip generation calculations are predicated on the assumed quantum of parking spaces.

4.5 Trip generation

The CBHK report states that the traffic generation for the new development will be 440 and 570 vehicles per hour (2-way) in the AM peak and PM peak respectively. These rates are calculated by factoring the observed trip generation rates at the existing site (0.42 and 0.55 trips per space in the AM and PM peaks respectively) by the ratio of the increase in car parking spaces (153 spaces to 1,042). Note that the Paramics modelling used the PM peak rate (0.55) for the AM and the PM peak hours.

Issue 11

The existing site is a mix of light industrial and commercial/office uses and does not have similar characteristics to the proposed development. Based on this and reference made to the appropriate use of sample/ case study survey sites in the RMS Guide to Traffic Generating Developments, there appears to be no reason why this trip generation rate would be applicable to the proposed land use. Benchmarking against similar developments in the locality of the site would help further understand current trip pattern characteristics and rates that can be achieved with this type of land use and supporting measures. It would also help to understand the travel demand measures that are required to be put in place to achieve this goal.

A standard approach to developing trip generation is to factor vehicle trips generated based on the GFA of the development. By way of comparison, RMS guidance¹⁹ suggests a factor of 2.0 vehicle trips per 100m² in the evening peak hour for office/commercial uses. This figure assumes an unrestrained situation, but also assumes an employee density of 21m² per employee. The CBHK report has assumed an employee density of 25m² per employee at 396 Lane Cove Road. More recent information for typical trip generation rates in this area can be obtained from a recent survey (February 2010) conducted by RMS²⁰ for the office development at 16 Giffnock Avenue. This states a rate of 2.07 and 1.84 vehicle trips per 100m² GFA in the AM and PM peak hours, respectively. It should be noted that this site is smaller in scale than the proposal, uses a parking rate of approximately of 1 space per 22m2 and is situated further away from Macquarie Park train station (although within a 400m catchment).

¹⁹ RTA (2002), 'Guide To Traffic Generating Developments'

²⁰ GTA Consultants for RMS, 2011.

Table 3 summarises the data above and shows the wide range in potential trip generation if different trip rates are applied.

Data Source	Notes	PM peak hour 2-way trips
СВНК	For 396 Lane Cove Road (2011)	570
Arup	For 396 Lane Cove Road (2010)	800
RMS	Survey at 16 Giffnock Avenue	1,534
RMS	Guide to Traffic Generating Developments	1,667

Table 3 Summary of Trip Generation estimates

It is estimated that the proposed development will have a total employment population of approximately 3,300 people²¹. Assuming a car occupancy rate of 1.2 and 1,042 available parking spaces will limit car driver demand, then this equates to a car driver mode share of 38%. Only 44% of the 38% have been estimated to arrive or leave during the AM or PM peaks.

Issue 12

There is inconsistency between trip generation rates used to assess the development and those stated in the guidelines or recent RMS surveys of the area. To move away from these estimations requires clear justification of the ability to achieve this reduction beyond broad level statements. The risk is that more people who work at this facility will travel by car during the peak hour or choose to park in other nearby parking facilities, which may result in a further decrease in road network performance that has not been accounted for in this assessment.

4.6 Trip Distribution

The distribution of development traffic has been calculated using the Paramics model, by applying the distribution of a neighbouring zone, which produces the distribution shown in Table 4. Note that the columns rendered in grey denote the direction where 80% of the traffic is expected to flow in the AM and PM peaks.

Table 4 Development Trip Distribution²²

Mor	ning	Afternoon		
To Dev	From Dev	To Dev	From Dev	

²¹ Colston Budd Hunt & Kafes Pty Ltd, (November 2011), 'Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, MacQuarie Park', page 24

²² Colston Budd Hunt & Kafes Pty Ltd, (8th March 2012), 'Letter to Owen Hodgson, RMS, RE: PART 3A PROJECT: PROPOSED WINTEN/AUSTRALAND COMMERCIAL DEVELOPMENT, ON SITE AT 396 LANE COVE ROAD AND 1 GIFFNOCK AVENUE, MACQUARIE PARK'

	Morning		After	noon
South (Lane Cove Road)	31%	5%	11%	28%
West (Epping Road and M2)	21%	65%	52%	25%
East (Epping Road)	21%	19%	15%	18%
North (Lane Cove Road)	27%	11%	23%	28%

The STM distribution can broadly be compared with the columns in grey. The comparison suggests that the distribution used by CBHK is low for trips going to the east and high for trips going to the north. This does not necessarily mean that the distribution used by CBHK is incorrect but more investigation may be beneficial.

Issue 13

It is not clear from available data how the distribution shown in Table 4 relates to the routeing in the close vicinity of the development site. As such, it is difficult to check the impact that the adopted trip distribution has on the road network close to the development site.

4.7 Traffic Assignment

The traffic assumptions are not based on any observed or forecast travel survey data sets.

Issue 14

The assignment of traffic may not form a realistic representation of traffic conditions and may underestimate the impact on network performance.

4.8 SIDRA Modelling Review

A letter sent by CBHK to RMS²³ provided additional SIDRA modelling outputs. The assessment fails to indicate that the SIDRA modelling identifies that the proposed development traffic flows will result in queuing beyond the current right turn bay lengths (from 160m to 215m and the current facility operates with a bay length of 190m) in the AM peak on the Lane Cove Road (north) approach to the signalised intersection of Lane Cove Road with Waterloo Road. Traffic will spill into through traffic lanes and result in both traffic efficiency and safety issues for current road users of this state road and needs to be addressed. The SIDRA outputs also indicates that queuing for the right turn will result in an additional 23 second delay (or 20% increase) for each vehicle performing this movement at the intersection. This would result in further delays if additional traffic was included combined with traffic growth for opening or horizon years.

²³ Colston Budd Hunt & Kafes Pty Ltd, (8th March 2012), 'Letter to Owen Hodgson, RMS, RE: PART 3A PROJECT: PROPOSED WINTEN/AUSTRALAND COMMERCIAL DEVELOPMENT, ON SITE AT 396 LANE COVE ROAD AND 1 GIFFNOCK AVENUE, MACQUARIE PARK'

For the Waterloo Road/Lane Cove Road intersection, the heavy vehicle percentage (calculated for the intersection as a whole) is 4.2% and 3.4%. The SIDRA modelling uses a HV factor of approximately 1%. This does not account for an increase in bus service patterns or doubling of the freight trips to the development site.

Left and right turns on the western approach are significantly different when comparing modelled flows with RMS counts. If the modelled flows reflect the observed counts, there may be a significant impact on the operation of the intersection.

Pedestrian movement factors in the SIDRA models remain at 53 in all scenarios. The proposal states that it is based on increases in non-car mode share, however, this has not been allowed for in the modelling.

Issue 15

The review of the SIDRA models raises a number of issues that if investigated further may result in the mode outputs showing a greater impact as a result of the development.

4.9 Mitigation Measures

Two development scenarios that may mitigate against the impacts were modelled. One scenario included a G-turn treatment at the Lane Cove Road/Waterloo Road intersection. The other development scenario includes an upgrade of the intersection between Coolinga Road and Giffnock Avenue, from a priority to a roundabout. This is to facilitate movements leaving the development site to u-turn at this intersection in order to access Waterloo Road.

The first mitigation measure did not result in any improvements to network operations and as a result was discarded. It is identified that the proposals access point on Coolinga Road will directly impact on adjacent intersections and that a roundabout at Giffnock Avenue and is required to assist u-turning traffic.

Issue 16

The impact on other traffic using similar routes are not defined in the report nor are a package of measures to ensure that the impacts are minimised.

The only clear recommendation provided as part of the report that may help to manage the impact is a commitment to the production of a travel plan. This is stated on page 13 of the CBHK report and will be used to educate future company employees and property managers of the travel mode options.

By way of comparison, Optus is situated near to the proposal site, albeit further from Macquarie Park train station, similar in scale and use (with over 6000 employees and 2002 parking spaces, a similar ratio of employees to parking spaces), and is an example of what can be achieved through putting in place travel demand measures²⁴.

²⁴ Source - http://www.pcal.nsw.gov.au/case_studies/optus

Its commitment to public and active transport user targets for its employees has resulted in a target model share by non-car modes of 45%, which has been achieved through a much greater commitment to mitigation measures and includes

- new employee bus services;
- financial support for public transport costs;
- charging mechanism to allocate parking according to need;
- priority parking to ride sharers (car pooling);
- on-site infrastructure for cycling and walking; and
- all supported by extensive engagement with employees.

Issue 17

The proposal does not commit to any measures that make up a typical Travel Plan yet it is suggested that a high mode share target of 69% can be achieved.

5. Summary of Findings

This section provides a summary of the desktop "Traffic and Transport Review" prepared by GHD Pty Ltd dated May 2012 of the following documents:

- Arup (September 2010), 'Concept Plan 396 Lane Cove Road, Macquarie Park';
- JBA Urban Planning (November 2010), 'Environmental Assessment Report, Concept Plan: Macquarie Park Commerce Centre, 396 Lane Cove Road, Macquarie Park';
- Colston Budd Hunt & Kafes (November 2011) "Transport Aspects of Proposed Commercial Development – 396 Lane Cove Road, Macquarie Park" (November 2011); and
- Parsons Brinckerhoff (November 2011), '396 Lane Cove Road Paramics Modelling Report' – included as Appendix B to the CBHK report.

The review raises the following issues concerning the above Traffic and Transport assessment documentation:

- 1. The scale of the development is significant in comparison with the existing land use and the type of land use is not similar:
 - a. It would be reasonable to expect that the proposed development, without any travel demand management measures, would impact further on the already congested road network around the Macquarie Park area;
 - b. It would be reasonable to expect a significant impact on a network with limited and restricted access routes; and
 - c. The existing site is a mix of light industrial and commercial/office uses and does not have similar characteristics to the proposed development, yet the trip generation rate for the proposed development is derived from the existing use. There appears to be no reason why this trip generation rate would be applicable to the proposed land use;
- A series of issues associated with the modelling may result in an assessment that suppresses the impact of the development on the network. As such, the assessment does not demonstrate that the transport network is adequate to cater for either the opening of the development or in the medium term (10 year horizon):
 - There is inconsistency between trip generation rates used to assess the development and those stated in the guidelines or recent RMS surveys of the area. To move away from these estimations requires clear justification of the ability to achieve this reduction beyond broad level statements;

- b. The documentation does not provide a clear justification for the adopted distribution of traffic from the development site; and
- c. There are a number of development and network proposals that would impact on the network that supports the development, however these have not been taken into account. A probable increase in traffic on the network may have an impact on the overall operation of the network which has not been factored into the assessment;
- d. The assessment does not undertake a review of either an opening year scenario for the proposed development nor a 10 year horizon year, which would typically be used to demonstrate that the proposed infrastructure is appropriate and can operate satisfactory under future traffic conditions. For a Part 3A major development, it is typically standard practice to assess the impact of the development using at least a 10 year time horizon.
- 3. The scale of the proposed car parking provision implies a greater impact on the road network than has been assessed. There is a risk that due to the size of the parking allocation that more vehicles may choose to travel during peak periods leading to increased congestion along the network:
 - a. The proposal provides no detail about why a parking provision that is more than double the peak hour trip rate is required.
 - b. Although the parking quantum is in line with the Ryde Council's LEP for the Macquarie Park Corridor, it is not clear if the amount of on-site parking is demonstrated to have a minimalist approach as required by the Director General's Environmental Assessment Requirements for 396 Lane Cove.
- 4. The results of the operational assessment implies that there are capacity deficiencies on the wider road network, but details of how this can be addressed or how the development impacts on these areas are not provided in the Assessment documents:
 - a. The Paramics model outputs suggest the development increases delay and congestion substantially, but the commentary does not explore the reasons for these results. The reports do not clearly indicate:
 - What is causing the blockage(s) that prevents vehicles from getting to the site (for example, in the AM peak, 16% of traffic generated by the development cannot access the site in the peak hour due to congestion); and
 - ii. What is causing the increase in vehicle hours (for example, model output from the PM peak show that a 2% increase in vehicles causes an 8% increase in vehicle hours)

- b. The in-scope intersections are tightly defined, neglecting other intersections on the wider network where a significant impact may be felt (see Figure 10 which shows the area covered by the detailed MBHK SIDRA analysis, the PB Paramics analysis and key intersections used to access the Macquarie Park area that has been observed in other similar studies to be heavily congested);
- c. It is not clear from the data available how the assumed distribution for generated traffic relates to the routing in and out of the development site. The assumed assignment of traffic may therefore not form a realistic representation of traffic conditions and may underestimate the impact on network performance. The distribution adopted requires further justification;
- d. The review of the SIDRA models raises a number of issues that if investigated further may result in the model outputs showing a greater impact as a result of the development:
 - i. The model shows queueing beyond the right turn bay in the AM peak on the Lane Cove Road (north) approach to the signalised intersection of Lane Cove Road with Waterloo Road resulting in both traffic efficiency and safety issues
 - ii. The SIDRA mode for the Lane Cove Road with Waterloo Road intersection has a lower than surveyed proportion of heavy vehicles;
 - Left and right turns on the western approach are significantly different when comparing modelled flows with RMS counts; and
 - iv. Pedestrian movement factors in the SIDRA models remain unchanged in all scenarios even though a large share for noncar modes is assumed.
- 5. There is no justification for how the site may achieve mode share targets of 69% non-car users; in particular, it is not clear how such a high level of access via public transport and non-car modes is to be achieved, given the following:
 - The location of the site is a significant distance from the nearest residential development which is low density in character and as a result the number of walk trips to work are likely to be low;
 - b. The current cycle mode share in the LGA is very low and even state targets only forecast a doubling of the share from the existing low base. It is also noted that the terrain to the north and further south does not promote cycling for the masses;
 - c. The proposal does not appraise the suitability of cycle infrastructure in the area nor does it propose to enhance off-site cycle infrastructure to assist in encouraging cycle use;

- Access by rail is limited and only offered via a congested Northern Line, meaning that there are both capacity limitation on the current system and that this location is not accessible by rail for a high proportion of the worker catchment;
- e. It is also acknowledged that the North West Rail Link will provide some additional capacity to the rail network; however the limitation downstream at the harbour crossing will continue to be a system capacity constraint.
- 6. The proposal will rely heavily on existing bus services for worker access to the site, but fails to either acknowledge the ability of the current services and network or propose changes that would assist to make this method of travel attractive.
- 7. The development is likely to require significant supporting travel demand management measures and treatments that will help to minimise the impacts. However:
 - a. No mitigation measures that would help the transport network achieve efficiency and safety goals are identified;
 - b. The proposed Travel Plan does not provide a commitment to specific measures or objectives, nor does the Traffic and Transport Assessment justify how the Travel Plan will contribute to the implied mode share targets.
- Although distinct, the areas of concern are cumulative, meaning that the overall assessment may be significantly underestimating the impact of the development if each issue is not addressed or included in the assessment process.

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
	Addition	Name	Signature	Name	Signature	Date
0	SP	GH		GH		4-5-12
1	SP	GH		GH		22-05- 12