



Mr Karu Wijayasighe  
Senior Strategic Land Use Planner  
Hawkesbury City Council  
PO Box 146  
Windsor NSW 2756

Dear Mr Wijayasighe

**Planning Proposal to Rezone Lot 1 DP 700263, Lot C DP 160847, Lot 2 DP 629053 and Lot 3 DP 700263, 120-188 Hawkesbury Valley Way, Clarendon to B7 Business Park**

Thank you for your letter dated 9 September 2016, requesting Transport for NSW (TfNSW) review and comment on the above. Please accept this letter as a joint TfNSW and Roads and Maritime Services (Roads and Maritime) response.

The issues raised in the TfNSW's submission dated 27 June 2014 and at the meeting with the applicant on 10 March 2016 have not been adequately addressed in the supplementary traffic report (dated July 2016) prepared to support the Planning Proposal. Detailed comments in relation to the supplementary traffic report and the Planning Proposal are provided at **Attachment A**, which should be addressed to the satisfaction of TfNSW and Roads and Maritime prior to the gazettal of the proposed amendment to the LEP.

Comments on the above Planning Proposal are provided below:

- The traffic assessment for the subject site does not consider the 'worst case' scenario in terms of potential development yield and traffic generation in accordance with the proposed zoning provisions.
- TfNSW and Roads and Maritime are of the view that the assessment provided understates the development potential and therefore traffic generation potential of the future development.
- A total of three accesses are proposed for the site based on the traffic report, while one access was shown on the Indicative Site Plan accompanying the planning proposal report (dated September 2013 Revision 3 - page 11). A copy of the revised planning proposal needs to be provided to check the consistency between planning proposal and the traffic report.
- No detailed information has been provided in relation to the proposed railway crossing arrangement. Proposed access plan needs to be developed with the proposed crossing location.
- The applicant needs to identify suitable infrastructure required to ameliorate any traffic impacts and safety impacts associated with the future development.
- Strategic concept plans need to be included in the traffic report for any works proposed within the road reserve.

- The proposed VPA would need to be entered into prior to the gazettal of the proposed amendment to the LEP to ensure that the works will be constructed to support the future development. A draft schedule of works should be prepared in consultation with TfNSW and Roads and Maritime to inform the VPA, including details of the anticipated development milestones/staging and timeframes to establish associated trigger points for the delivery of infrastructure improvements.

TfNSW requests that the proponent consults with TfNSW and Roads and Maritime Services in relation to the above issues. TfNSW would be pleased to consider any further material forwarded from the proponent.

Thank you again for the opportunity of providing advice for the above development application. If you require clarification of any issue raised, please don't hesitate to contact Para Sangar, Senior Transport Planner on 8202 2672.

Yours sincerely



4/11/16

Mark Ozinga  
**Principal Manager, Land Use Planning and Development  
Freight, Strategy and Planning**

Objective Reference- CD16/13546

## Attachment A – Detailed Comments

TfNSW and Roads and Maritime have reviewed the supplementary traffic report and provide the following comments to be addressed prior to the gazettal of the LEP amendments:

### Indicative Development Scheme

- The traffic assessment of the future development should reflect the maximum permissible yield as a result of the rezoning and should be broken down to assess relevant development horizons (ie development Stages 1, 2 and 3) in order to identify the impacts at these thresholds, recommended mitigation measures and the triggers for any road network upgrades required to support the development.
- It appears that a significant amount of developable area is not accounted for in the traffic assessment. While the Gateway determination issued 12 December 2013 was for the proposed rezoning of 34ha of the site to B7 Business Park, the indicative site plan (Stages 1 – 3) accounts for 26.4ha of the developable B7 area, with 11.6ha of traffic generating floor space having been assessed in the traffic report. While it is noted that some of the proposed B7 zoned area would be below the 1 in 100 year flood level, the planning proposal report dated September 2013 – Revision 3 stated this land may support development associated with the B7 uses which are not required to be above this flood level.
- The latest planning proposal report received by TfNSW and Roads and Maritime did not include details of the proposed Height of Building map for the site. Given there are no proposed Floor Space Ratio controls for the site, the Height of Building map details are required in order to understand the maximum developable yield.

### Traffic Generation

- The traffic generation rates should be broken up for the office space (10,000m<sup>2</sup>) and industrial business park component (90,000m<sup>2</sup>). Applying the rates for business park to the commercial office component may understate the potential traffic impacts. It is understood that these land uses would be physically separated (by the railway line) and developed at different stages due to the requirement for the grade-separated access over the railway line to facilitate access to the Stage 3 business park. The office traffic generation rates should reflect sites with similar journey to work mode share and other site characteristics (eg Norwest Bella Vista and Sydney Olympic Park surveyed sites).
- It is noted that the traffic generation rates applied for the industrial business park component were based on the surveyed rates for Tuggerah and Beresfield sites from *TD2013/04a Guide to Traffic Generating Developments Updated traffic surveys*. However, it appears that a range of 0.4-0.6 vtpm per 100m<sup>2</sup> has been applied, differing from the 0.92 vtpm per 100m<sup>2</sup> AM, 0.58 vtpm PM, and 0.55 vtpm AM, 0.40 vtpm PM (respectively) surveyed for those sites. This is likely to understate the potential traffic generation of Stage 3 (90,000m<sup>2</sup>), particularly for the weekday AM peak.
- The Saturday traffic generation for the business park uses should consider at least 30% of the weekday peak generation (Note: the Tuggerah site Saturday traffic represents approximately 20% of the weekday peak traffic, and the Beresfield site Saturday traffic represents 33%).
- It is noted that the traffic generation rates for the bulky goods development component are less than the Sydney average rates in *TD2013/04a*. This should be supported with empirical evidence to justify applying lower rates.

- The planning proposal report (page 36) mentions a fast-food outlet as part of Stages 1-2 which has not been accounted for in the traffic assessment. The traffic generation of this development should also be included, given the proposed zoning permits food and drink premises.

### **Trip Distributions**

- The traffic distributions/assignment of trips to the broader network should be justified with reference to BTS Journey to Work data for the study area.
- It is noted that the traffic assignment has assumed that the road connection to Racecourse Road through the southern part of the site and adjoining property would be provided. TfNSW and Roads and Maritime are of the understanding that the provision of this access is uncertain and is not proposed to be pursued until Stage 3 of the development (page 13-14 of the planning proposal report). It is understood that this access would require land owner consent from a third party which has not yet been obtained. It also appears that only 50% of the funding for construction of this access road is proposed in the indicative VPA schedule of works. Given the uncertainties, this access road should not be assumed for the purposes of modelling the traffic impacts unless a legally binding agreement is in place for its provision.

### **Mid-block Capacity Hawkesbury Valley Way**

- The traffic report and planning proposal report mention the need for mid-block capacity improvements (provision of four lanes) on Hawkesbury Valley Way to cater for the traffic resulting from the planning proposal. A mid-block capacity assessment (volume capacity ratio) should be provided to assess the capacity of Hawkesbury Valley Way with and without the future development at relevant future year/development milestones (ie. year 2021, 2026, 2031, base case compared with Stage 1, 2 & 3 development traffic) to determine the extent of widening required and to identify appropriate triggers for the upgrade works.

### **Intersection Assessment**

- It appears that the weekday AM peak development traffic generation and network impacts have not been considered/assessed. Noting that the two surveyed sites used for the purposes of calculating the Stage 3 industrial business park traffic generation have higher AM peak traffic generation than the PM peak, it is critical that the AM peak is also assessed to understand the impacts of the Stage 3 development traffic.
- Considering the uncertainty with the access to Racecourse Road, it is recommended that the Sidra intersection assessment includes a scenario test without the Racecourse Road access for Stages 1 & 2 and Stages 1-3 (at future year horizons 2021, 2026, 2031), to identify appropriate intersection treatments and geometric requirements in the event that alternate access is not feasible.
- The need for two access points on the classified road network should be justified. The modelling should provide comparison of intersection performance with one and two access points to Hawkesbury Valley Way for a) Stages 1 & 2 and b) Stages 1-3.
- Electronic files of the Sidra intersection modelling undertaken should be provided for Roads and Maritime's review.

## **Bus Services**

- The traffic report states the following:
  - Most movements at the intersection of Hawkesbury Valley Way with Moses Street/Cox Street would operate satisfactorily. Some movements, such as through and right turn movements from the side streets could experience delays; and
  - Alternative routes are available for traffic.

TfNSW advises that any delays at this intersection would have an impact on multiple public and school bus services which turn from Hawkesbury Valley Way onto Moses and Cox St. Currently, public routes 661, 663, 664, 668, 674, 675A, and 676 operate via Hawkesbury Rd/Moses St along with several school bus services. The traffic report needs to assess the impacts on bus operation of the proposed development in detail.

- The traffic report needs to consider public transport service delivery requirements to service existing customer base and St Matthew's Primary School via this intersection.

## **Concept Plans**

- It is noted that a strategic layout plan has been provided for the proposed Stage 1 access roundabout only. Once the access arrangements and intersection treatments are agreed, strategic concept plans (and strategic cost estimates) should be developed in consultation with TfNSW and Roads and Maritime for the works proposed within the road reserve.
- Hawkesbury Valley Way is a 25m B-double approved route and given the proposed land uses, the proposed intersection treatments would need to cater for the turning movements of these vehicles.
- Roads and Maritime would require a draft DCP to be developed to set out the access strategy and guide future development on the site.

Upon receipt of an addendum traffic report to address the above issues, TfNSW and Roads and Maritime will provide further review of the traffic report and accompanying modelling and plans before providing further comments on the planning proposal.

Mr Karu Wijayasighe  
Senior Strategic Land Use Planner  
Hawkesbury City Council  
366 George Street  
PO Box 146  
Windsor NSW 2756

Dear Mr Wijayasighe

**Planning Proposal**  
**Rezone 120 – 188 Hawkesbury Valley Way to B7 Business Park**

In November 2017 Transport for NSW (TfNSW) received correspondence from *Urban City Consulting* in relation to the above planning proposal. It is understood that Hawkesbury City Council is aware this correspondence would be sent to TfNSW and to Roads and Maritime Services (Roads and Maritime) who will respond separately on this occasion.

TfNSW last responded to these issues in 2016. The previous TfNSW response forms **Attachment B** of this response. Following on from the 2016 correspondence from TfNSW there was a meeting between Hawkesbury City Council, TfNSW, and the proponent on 10 March 2016.

The latest correspondence received from the proponent enclosed a traffic information report relating to the above development, dated July 2017 and titled *Supplementary Traffic Information for Planning Proposal for Business Park (including bulky goods and industrial development), Hawkesbury Valley Way, Clarendon*. The document was prepared by the traffic consultancy *Colston Budd Rogers and Kafes Pty Ltd (CBRK)*.

Key comments are provided below and the detailed comments are provided in Attachment A:

- The difference in traffic generating potential between what the proponent advises and the Gateway submission remains unexplained.
- TfNSW reproduced the proponent's traffic distribution and believes a greater percentage of the overall traffic will come from the east which may require a revision of the infrastructure response proposed.
- The references to a Racecourse Road connection should be fully deleted until the proponent can demonstrate that commercial arrangements providing access across the adjoining land are in place. If the connection to Racecourse Road is proposed to be made from that part of the proponent's land that is south of the Richmond Railway Line then detailed proposed access plans for the bridge crossing of the Richmond Railway Line will also need to be agreed by TfNSW and Sydney Trains prior to the inclusion of the link.
- Confirmation in regards to a number of matters relating to Richmond Line integration including bridges and buffer zones.

- The advice remains that the proposed VPA would need to be entered into prior to the gazettal of the proposed amendment to the LEP to ensure that works will be constructed to support the future development. A draft schedule of works should be prepared in consultation with TfNSW and Roads and Maritime to inform the VPA, including details of the anticipated development milestones/staging and timeframes to establish associated trigger points for the delivery of infrastructure improvements.
- A proposal for a shared path of at least 2.5 metres width from Clarendon Station to the development site should be an integral part of the planning proposal.

TfNSW requests that the applicant addresses the issues raised in this letter and the Roads and Maritime Services response and revises either or both the Planning Proposal and transport assessment so that they are consistent. TfNSW recommends that the applicant consults with TfNSW, Roads and Maritime Services and Sydney Trains to ensure that the issues raised are fully understood and the way forward agreed.

If you require clarification of any issue raised, please don't hesitate to contact Para Sangar, Senior Transport Planner, Land Use Planning and Development on 0466 024 892.

Yours sincerely



24/4/2018

**Mark Ozinga**

Principal Manager, Land Use Planning and Development  
Freight, Strategy and Planning

Objective Reference CD17/12896

## Attachment A – Detailed Comments

### Traffic generating potential of development

#### Comment

It is noted that the developable area is stated as 26.4 hectares in the Supplementary Traffic Information (Traffic Report) whilst the Gateway determination issued for the subject development site states as 34 hectares. The proponent's response that 26.4 hectares is the correct development 'footprint' with no supporting detail explaining how this equates to the Gateway determination for 34 hectares is not accepted by TfNSW.

#### Recommendation

TfNSW requests that the proponent clarifies the scale of the development in detail and amends the Traffic Report if required.

### Trip Distribution

#### Comment

TfNSW notes the Traffic Report has followed a prior TfNSW recommendation and developed a traffic distribution/assignment referencing BTS Journey to work data for the study area. When TfNSW reproduced the exercise a different distribution was arrived at as follows:

							Distribution					
		Towards Richmond	From Richmond	Toward Windsor	From Windsor	Total	Towards Richmond	From Richmond	Toward Windsor	From Windsor	West	East
PM Peak		430	190	210	100	930	46%	20%	23%	11%	67%	33%
Saturday Peak		280	280	170	170	900	31%	31%	19%	19%	62%	38%
AM Peak		400	200	130	270	1000	40%	20%	13%	27%	60%	40%
							East	West				
		Richmond/Hawkebury			182		91	91				
		Hawkebury			125		125					
		Blue Mountains			88			88				
		Penrith			88		44	44				
		Blacktown North			35		18	17				
		Rouse Hill/McGraths Hill			23		23					
		Blacktown			22		11	11				
		Mount Druit			22		11	11				
		Baulkham Hills			17		17					
		Merrylands/Guildford			16		16					
		Other areas			119		89	30				
							445	292				
							60%	40%				

### Recommendation

The traffic distribution arrived at by TfNSW suggests a greater percentage of the overall traffic will come from the east. Any updates to the Traffic Report should consider this finding which may also have implications for the intersection infrastructure proposed by the proponent.

### **Racecourse Road Connection**

#### Comment

There are multiple references to a road connection to Racecourse Road (for example section 2.5, 2.8, 2.16, 2.18, 2.27) despite acknowledgement that the proponent has not secured a right of way.

#### Recommendation

Until the proponent can demonstrate there is a binding arrangement in place to provide access across the 3<sup>rd</sup> party private lands between this development and Racecourse Road then no road connection between the development and Racecourse Road should be assumed in the Traffic Report. Any future revisions to the Traffic Report should eliminate reference to the Racecourse Road connection.

### **Proposed Road Connection (s) over Richmond Line and Rail Corridor**

#### Comments

The following comments are provided:

- Part of the site along the rail corridor is encumbered by RailCorp easements.
- It is noted that RailCorp/Sydney Trains gains access to the rail corridor through part of this site.
- The documentation should be clear in terms of the number and location of any future road overbridge(s); and
- It appears from the documentation supplied that Stages 1 and 2 of the proposal is in close proximity of the boundary of the Richmond Rail line.

It is advised that no objection in principle is raised to any future rail overbridge on the basis that it is at no cost to the State Government including the need to relocate any services and infrastructure. Council will be required to enter into a Rail Interface Agreement regarding the ongoing care and maintenance of the bridge(s). All future maintenance of the bridge will be borne by Council.

#### Recommendations

The following recommendations are provided:

- Any development will need to be consistent with the easement terms;
- Sydney Trains needs to be consulted for the following:
  - Rail corridor through part of this site;
  - Overbridge including construction methodology etc. Any new bridge will be required to comply with RailCorp/Asset Standards Authority engineering requirements; and
  - The land buffer needs to be provided.

## **Bus Services**

### Comment

The details of bus services included in the Traffic Report at Section 2.51 need to provide a map showing bus routes and the location of bus stops.

### Recommendation

It is advised that the proponent provides more detailed information in particular bus routes and bus stops in the Traffic Report.

## **Shared Path Connection to Clarendon Station**

### Comment

No information is provided in relation to pedestrian and cyclist facilities in the Traffic Report.

### Recommendation

It is requested that the proponent provide pedestrian and cyclist facilities to bus stops and Clarendon Station including a shared path complying with Austroads requirements from Clarendon Station to the development site.

## **Master Plan**

### Comment

There is no master plan for the site in particular a plan showing the detail around all the proposed final access points including the horizontal and vertical requirements for the proposed rail crossing point.

In attending to the above matter the proponent needs to consult with Sydney Trains in relation to the rail corridor requirements.

### Recommendation

It is requested that the proponent needs to prepare a Master Plan in consultation with Sydney Trains and Roads and Maritime Services.

## Attachment B



Mr Karu Wijayasighe  
Senior Strategic Land Use Planner  
Hawkesbury City Council  
PO Box 146  
Windsor NSW 2756

Dear Mr Wijayasighe

**Planning Proposal to Rezone Lot 1 DP 700263, Lot C DP 160847, Lot 2 DP 629053 and Lot 3 DP 700263, 120-188 Hawkesbury Valley Way, Clarendon to B7 Business Park**

Thank you for your letter dated 9 September 2016, requesting Transport for NSW (TfNSW) review and comment on the above. Please accept this letter as a joint TfNSW and Roads and Maritime Services (Roads and Maritime) response.

The issues raised in the TfNSW's submission dated 27 June 2014 and at the meeting with the applicant on 10 March 2016 have not been adequately addressed in the supplementary traffic report (dated July 2016) prepared to support the Planning Proposal. Detailed comments in relation to the supplementary traffic report and the Planning Proposal are provided at **Attachment A**, which should be addressed to the satisfaction of TfNSW and Roads and Maritime prior to the gazettal of the proposed amendment to the LEP.

Comments on the above Planning Proposal are provided below:

- The traffic assessment for the subject site does not consider the 'worst case' scenario in terms of potential development yield and traffic generation in accordance with the proposed zoning provisions.
- TfNSW and Roads and Maritime are of the view that the assessment provided understates the development potential and therefore traffic generation potential of the future development.
- A total of three accesses are proposed for the site based on the traffic report, while one access was shown on the Indicative Site Plan accompanying the planning proposal report (dated September 2013 Revision 3 - page 11). A copy of the revised planning proposal needs to be provided to check the consistency between planning proposal and the traffic report.
- No detailed information has been provided in relation to the proposed railway crossing arrangement. Proposed access plan needs to be developed with the proposed crossing location.
- The applicant needs to identify suitable infrastructure required to ameliorate any traffic impacts and safety impacts associated with the future development.
- Strategic concept plans need to be included in the traffic report for any works proposed within the road reserve.

- The proposed VPA would need to be entered into prior to the gazettal of the proposed amendment to the LEP to ensure that the works will be constructed to support the future development. A draft schedule of works should be prepared in consultation with TTNW and Roads and Maritime to inform the VPA, including details of the anticipated development milestones/siting and timeframe to establish associated trigger points for the delivery of infrastructure improvements.

TTNW requests that the proponent consult with TTNW and Roads and Maritime Services in relation to the above issues. TTNW would be pleased to consider any further material forwarded from the proponent.

Thank you again for the opportunity of providing advice for the above development application. If you require clarification of any issue raised, please don't hesitate to contact Para Sangar, Senior Transport Planner on 8202 2672.

Yours sincerely



4/11/16

Mark Dings  
Regional Manager, Land Use Planning and Development  
Freight, Strategy and Planning

Objector Reference- QD12/63342

## Attachment A – Detailed Comments

TfNSW and Roads and Maritime have reviewed the supplementary traffic report and provide the following comments to be addressed prior to the gazetting of the LEP amendments:

### Indicative Development Scheme

- The traffic assessment of the future development should reflect the maximum permissible yield as a result of the rezoning and should be broken down to assess relevant development horizons (ie development Stages 1, 2 and 3) in order to identify the impacts at these thresholds, recommended mitigation measures and the triggers for any road network upgrades required to support the development.
- It appears that a significant amount of developable area is not accounted for in the traffic assessment. While the Gateway determination issued 12 December 2013 was for the proposed rezoning of 24ha of the site to B7 Business Park, the indicative site plan (Stages 1 – 3) accounts for 28.4ha of the developable B7 area, with 11.8ha of traffic generating floor space having been assessed in the traffic report. While it is noted that some of the proposed B7 zoned area would be below the 1 in 100 year flood level, the planning proposal report dated September 2013 – Revision 3 stated this land may support development associated with the B7 uses which are not required to be above this flood level.
- The latest planning proposal report received by TfNSW and Roads and Maritime did not include details of the proposed Height of Building map for the site. Given there are no proposed Floor Space Ratio controls for the site, the Height of Building map details are required in order to understand the maximum developable yield.

### Traffic Generation

- The traffic generation rates should be broken up for the office space (10,000m<sup>2</sup>) and industrial business park component (20,000m<sup>2</sup>). Applying the rates for business park to the commercial office component may understate the potential traffic impacts. It is understood that these land uses would be physically separated (by the railway line) and developed at different stages due to the requirement for the grade-separated access over the railway line to facilitate access to the Stage 3 business park. The office traffic generation rates should reflect sites with similar journey to work mode share and other site characteristics (eg Norwest Bella Vista and Sydney Olympic Park surveyed sites).
- It is noted that the traffic generation rates applied for the industrial business park component were based on the surveyed rates for Tuggerah and Beresfield sites from *TDT2013/04a Guide to Traffic Generating Developments Updated traffic surveys*. However, it appears that a range of 0.4-0.6 vph per 100m<sup>2</sup> has been applied, differing from the 0.92 vph per 100m<sup>2</sup> AM, 0.58 vph PM, and 0.55 vph AM, 0.40 vph PM (respectively) surveyed for those sites. This is likely to understate the potential traffic generation of Stage 2 (20,000m<sup>2</sup>), particularly for the weekday AM peak.
- The Saturday traffic generation for the business park uses should consider at least 30% of the weekday peak generation (Note: the Tuggerah site Saturday traffic represents approximately 20% of the weekday peak traffic, and the Beresfield site Saturday traffic represents 31%).
- It is noted that the traffic generation rates for the bulky goods development component are less than the Sydney average rates in *TDT2013/04a*. This should be supported with empirical evidence to justify applying lower rates.

- The planning proposal report (page 36) mentions a fast-food outlet as part of Stages 1-2 which has not been accounted for in the traffic assessment. The traffic generation of this development should also be included, given the proposed zoning permits food and drink premises.

#### **Trip Distributions**

- The traffic distributions/assignment of trips to the broader network should be justified with reference to BTS Journey to Work data for the study area.
- It is noted that the traffic assignment has assumed that the road connection to Racecourse Road through the southern part of the site and adjoining property would be provided. TINSW and Roads and Maritime are of the understanding that the provision of this access is uncertain and is not proposed to be pursued until Stage 3 of the development (page 13-14 of the planning proposal report). It is understood that this access would require land owner consent from a third party which has not yet been obtained. It also appears that only 50% of the funding for construction of this access road is proposed in the indicative VPA schedule of works. Given the uncertainties, this access road should not be assumed for the purposes of modelling the traffic impacts unless a legally binding agreement is in place for its provision.

#### **Mid-block Capacity Hawkesbury Valley Way**

- The traffic report and planning proposal report mention the need for mid-block capacity improvements (provision of four lanes) on Hawkesbury Valley Way to cater for the traffic resulting from the planning proposal. A mid-block capacity assessment (volume capacity ratio) should be provided to assess the capacity of Hawkesbury Valley Way with and without the future development at relevant future year/development milestones (ie. year 2021, 2026, 2031, base case compared with Stage 1, 2 & 3 development traffic) to determine the extent of widening required and to identify appropriate triggers for the upgrade works.

#### **Intersection Assessment**

- It appears that the weekday AM peak development traffic generation and network impacts have not been considered/assessed. Noting that the two surveyed sites used for the purposes of calculating the Stage 3 industrial business park traffic generation have higher AM peak traffic generation than the PM peak, it is critical that the AM peak is also assessed to understand the impacts of the Stage 3 development traffic.
- Considering the uncertainty with the access to Racecourse Road, it is recommended that the Sidra Intersection assessment includes a scenario test without the Racecourse Road access for Stages 1 & 2 and Stages 1-3 (at future year horizons 2021, 2026, 2031), to identify appropriate intersection treatments and geometric requirements in the event that alternate access is not feasible.
- The need for two access points on the classified road network should be justified. The modelling should provide comparison of intersection performance with one and two access points to Hawkesbury Valley Way for a) Stages 1 & 2 and b) Stages 1-3.
- Electronic files of the Sidra Intersection modelling undertaken should be provided for Roads and Maritime's review.

## Bus Services

- The traffic report states the following:
  - Most movements at the intersection of Hawkesbury Valley Way with Moses Street/Cox Street would operate satisfactorily. Some movements, such as through and right turn movements from the side streets could experience delays; and
  - Alternative routes are available for traffic.

TfNSW advises that any delays at this intersection would have an impact on multiple public and school bus services which turn from Hawkesbury Valley Way onto Moses and Cox St. Currently, public routes 881, 883, 884, 888, 874, 878A, and 876 operate via Hawkesbury Rd/Moses St along with several school bus services. The traffic report needs to assess the impacts on bus operation of the proposed development in detail.

- The traffic report needs to consider public transport service delivery requirements to service existing customer base and St Matthew's Primary School via this intersection.

## Concept Plans

- It is noted that a strategic layout plan has been provided for the proposed Stage 1 access roundabout only. Once the access arrangements and intersection treatments are agreed, strategic concept plans (and strategic cost estimates) should be developed in consultation with TfNSW and Roads and Maritime for the works proposed within the road reserve.
- Hawkesbury Valley Way is a 26m B-double approved route and given the proposed land uses, the proposed intersection treatments would need to cater for the turning movements of these vehicles.
- Roads and Maritime would require a draft DCP to be developed to set out the access strategy and guide future development on the site.

Upon receipt of an addendum traffic report to address the above issues, TfNSW and Roads and Maritime will provide further review of the traffic report and accompanying modelling and plans before providing further comments on the planning proposal.



1 May 2018

Roads and Maritime Ref: SYD14/00278/04 (A21668900)  
Council Ref: LEP002/12

General Manager  
Hawkesbury City Council  
PO Box 146  
WINDSOR NSW 27

Dear Sir/Madam,

**PLANNING PROPOSAL TO REZONE 120 – 188 HAWKESBURY VALLEY WAY TO B7 BUSINESS PARK**

Reference is made to correspondence from Urban City Consulting to Transport for NSW (TfNSW) and Roads and Maritime Services (Roads and Maritime) in relation to the abovementioned planning proposal. It is understood that Hawkesbury City Council has also been provided with this correspondence.

The information provided included a supplementary traffic study relating to the above planning proposal dated July 2017, prepared by Colston Budd Rogers and Kafes Pty Ltd (CBRK). This provided a response to matters raised by TfNSW and Road and Maritime on the planning proposal and traffic study throughout 2016.

Roads and Maritime notes that the 2014 planning proposal sought to amend Hawkesbury Local Environmental Plan 2012, to rezone 34ha of a 74ha parcel of land (as per the Gateway Determination 12 December 2013), from RU4 Primary Production to B7 Business Park, with additional permitted uses clause for the northern portion of the site to allow bulky goods retail and office uses. It is noted that the traffic study contemplates 26.4ha of land zoned B7 and with 11.6ha of traffic generating floor space. The difference in traffic generating potential between what has been assessed and the Gateway determination has not been adequately explained. It is unclear whether the planning proposal has been amended to 26.4ha of proposed land zoned B7. Therefore the revised planning proposal and maps are required to be submitted prior to Roads and Maritime providing formal comments on the planning proposal.

Given the scale of the traffic generation associated with the subject planning proposal, Roads and Maritime anticipates that the development triggers the need for widening of Hawkesbury Valley Way to two lanes in each direction for the full frontage for stages 1 & 2 (at a minimum) and sections west of the intersection of George Street and Hawkesbury Valley Way to a point west of the Racecourse Road intersection to support the ultimate development. This is likely to be very costly, particularly due to constraints such as the Rickabys Creek crossing. Roads and Maritime has no plans or commitment for widening of the subject section of Hawkesbury Valley Way in its current forward works program.

Notwithstanding this, Roads and Maritime has reviewed the supplementary traffic study and provides comments at **Attachment A** to be addressed prior to public exhibition of the planning proposal/revised planning proposal. Comments in relation to the Sidra modelling are provided at **Attachment B** to be addressed in revised modelling.

Thank you for the opportunity to provide advice on the subject planning proposal. Should you have any questions or further enquiries in relation to this matter, Rachel Nicholson would be pleased to take your call on 8849 2702 or email [development.sydney@rms.nsw.gov.au](mailto:development.sydney@rms.nsw.gov.au).

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'Greg Flynn', with a stylized flourish extending from the end.

Greg Flynn  
**Senior Manager Strategic Land Use**  
**Sydney Planning, Sydney Division**

## Attachment A: Detailed Comments

Roads and Maritime has reviewed the supplementary traffic report and provides the following comments to be addressed in a revised traffic study and planning proposal:

### Indicative Development Scheme:

1. The latest planning proposal report received by TfNSW and Roads and Maritime did not include details of the proposed Height of Building or Floor Space Ratio controls for the site. Details of the proposed Floor Space Ratio and/or Height of Building controls are required in order to understand the maximum developable yield, particularly for the office component.

### Traffic Generation:

2. Generally, in the context of a planning proposal, the traffic generation should be considered based on a maximum practicable yield scenario for the proposed zone and planning controls and site characteristics.

The trip generation survey information from those selected 'benchmark'/comparable sites should be justified with reference to journey to work mode share data and details of accessibility. The data can be sourced from independent surveys and should not necessarily rely only on Roads and Maritime's surveys. The use of '85th percentile' rates as opposed to average rates is considered prudent where a comparable site survey is not available for the purposes of an indicative estimate.

3. It would be of benefit to tabulate the revised traffic generation of each stage of the development for AM, PM and Saturday peaks, and detail what land use is assumed for each stage as a basis of the calculations.
4. The rate applied for the office component should be justified with reference to mode share data or a survey from comparable site(s). Roads and Maritime previously suggested Norwest Business Park or Sydney Olympic Park as an example for further investigation. The rate applied needs to be justified with evidence to confirm the site is comparable (ie journey to work mode share data).
5. The planning proposal report (page 36) mentions a fast-food outlet as part of Stages 1-2, given the proposed zoning permits food and drink premises. It is noted that 50 vehicles per hour AM for the fast food component is considered in the supplementary traffic study although no justification is given for the rate applied. It is unclear whether the PM and Saturday traffic generation now includes a fast food component.

Roads and Maritime's survey data suggests that takeaway food and drink premises such as a McDonalds fast food restaurant generates over 130 vtpm AM peak, 160 vtpm PM peak and 300 vtpm Saturday peak in Sydney metropolitan areas, however, may be higher in regional and urban fringe areas.

6. From Roads and Maritime preliminary calculations, it is anticipated that Stage 1 & 2 combined may generate up to:
  - o 560vtpm AM
  - o 700vtpm PM
  - o 1,150vtpm Sat

Note: above based on 11,000sqm hardware/home improvement centres, 5,000sqm other bulky goods, a fast food outlet, 10,000sqm office space.

With the addition of 90,000sqm business park at completion of Stage 3, Roads and Maritime estimates that traffic generation will indicatively reach up to:

- o 1,300vtpm AM
- o 1,200vtpm PM
- o 1,300vtpm Sat

### Traffic Distribution:

7. It is noted that the supplementary assessment has followed a prior TfNSW recommendation and developed a traffic distribution/assignment referencing BTS Journey to work data for the study area. TfNSW reproduced the proponent's traffic distribution and noted a greater percentage of the overall traffic will come from the east which may require a review of the infrastructure response proposed. The distribution was arrived at as follows:

	Towards Richmond	From Richmond	Toward Windsor	From Windsor	Total	Distribution		Toward Windsor	From Windsor	West	East
						Towards Richmond	From Richmond				
PM Peak	430	190	210	100	930	46%	20%	23%	11%	67%	33%
Saturday Peak	280	280	170	170	900	31%	31%	19%	19%	62%	38%
AM Peak	400	200	130	270	1000	40%	20%	13%	27%	60%	40%

						East		West	
						East	West	East	West
Richmond/Hawkebury				182		91	91		
Hawkebury				125		125			
Blue Mountains				88			88		
Penrith				88		44	44		
Blacktown North				35		18	17		
Rouse Hill/McGraths Hill				23		23			
Blacktown				22		11	11		
Mount Druit				22		11	11		
Baulkham Hills				17		17			
Merrylands/Guildford				16		16			
Other areas				119		89	30		
						445	292		
						60%	40%		

8. The references to a Racecourse Road connection should be removed unless the proponent can demonstrate that commercial/legal agreements are in place providing access across the adjoining land. As there is no certainty that this can be achieved any reference to this access for future stages may be misleading.
9. The site access appears to be mislabelled at Figure 4 of the supplementary study.

### Mid-block Capacity Hawkesbury Valley Way:

10. In relation to the mid-block capacity assessment (volume capacity ratio):
- It is noted that the mid-block capacity assessment is based on the RMS Guide to Traffic Generating Developments and Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis guidelines lane capacity of 1,400 vehicles per lane per hour.
  - The assessment should be split into VCR for each direction (eastbound and westbound) AM and PM, with and without the future development, at relevant future year/development milestones (suggest considering stages 1 & 2 combined and ultimate stages 1-3 combined) for appropriate segments along Hawkesbury Valley Way to determine the extent of widening required and to identify appropriate triggers for the upgrade works.
  - The mid-block capacity assessment should consider any necessary widening west of the Racecourse Road intersection.

Given the scale of the traffic generation associated with the subject planning proposal, Roads and Maritime anticipates that the development triggers the need for widening of Hawkesbury Valley Way to two lanes in each direction for the full frontage for stages 1 & 2 (at a minimum) and sections west of the intersection of George Street and Hawkesbury Valley Way to a point west of the Racecourse Road intersection to support the ultimate development. This is likely to be very costly, particularly due to constraints such as the Rickabys Creek crossing. Roads and Maritime has no plans or commitment for widening of the subject section of Hawkesbury Valley Way in its current forward works program.

### Access Treatments:

11. It is noted that two access points are proposed to Hawkesbury Valley Way (roundabouts). It is noted that one access is proposed towards the western end of the site to provide access for stages 1 & 2 (northern portion of the site). It is noted the second access is proposed at the intersection of Percival Street leading to the RAAF base for stage 3.

Roads and Maritime advises that it cannot support a second access at the Percival Street intersection on road safety grounds. The eastern end of the site is unlikely to be suitable for an access due to roadside gradients and sight distance constraints. It is unlikely that a roundabout catering for B-doubles would be feasible at this location given the road geometry and roadside environment. Furthermore, it is understood that traffic control signals may not be a feasible option at this location due to conflicts with the RAAF airstrip signals on Hawkesbury Valley Way near the Percival Street intersection.

12. Roads and Maritime would support one primary access intersection on Hawkesbury Valley Way at a suitable location at the western end of the site. As previously advised, Hawkesbury Valley Way is a 25m B-double approved route and given the proposed land uses, the proposed intersection treatment would need to cater for the turning movements of these vehicles. In this instance, it is unlikely that a roundabout would be the most appropriate access treatment.

Traffic control signals may be a more appropriate access treatment at a suitable location at the western end of the site (subject to a warrants assessment, satisfactory modelling and consultation with the RAAF). It is suggested that the proponent should investigate warrants for traffic signals. The installation of a traffic control light is dependent on general warrants in accordance with Roads and Maritime Traffic Signal Design manual – Section 2 Warrants, which are available at: <http://www.rms.nsw.gov.au/documents/business-industry/partners-and-suppliers/guidelines/complementary-traffic-material/tsdsect2v14-i.pdf>

It must be emphasised that these warrants are a guide only. All traffic data should be analysed and alternative treatments considered to determine the optimum solution. Consultation should be carried out with the RAAF base to discuss any issues with potential future signals in proximity to their airstrip signal lighting and any necessary mitigation measures.

13. Roads and Maritime would consider only a left-in left-out access as a secondary access, at an appropriate location with adequate sight distance (if it can be demonstrated that this is required).
14. An updated site/concept plan clearly showing the proposed access points from Hawkesbury Valley Way should be provided to inform a site specific Development Control Plan (DCP) for the site. Roads and Maritime would require a draft DCP to be developed to set out the access strategy and guide future development on the site, showing the detail around the proposed final access point(s).

### Infrastructure improvements:

15. The proponent should identify suitable road transport infrastructure to ameliorate traffic and safety impacts resulting from the future development with consideration to all road users. It is noted from the 2014 planning proposal report (page 14) that the developer has proposed to enter into a VPA for the provision of road/transport infrastructure needed to support the planning proposal. TfNSW and Roads and Maritime support this approach and are willing to provide advice in the process of developing this agreement. The proponent should identify the schedule of works required to support the planning proposal, timing of required upgrades, strategic cost estimates and land components (to be reflected in the proposed zoning maps and planning agreement).
16. It is noted that the proponent identifies the need for an upgrade of the intersection of Hawkesbury Valley Way and Racecourse Road with development traffic. Details of an intersection upgrade treatment and warrants for any recommended treatment should be provided.

17. The intersection of Hawkesbury Valley Way and George Street appears to deteriorate (increased delays and queueing) in the 2026 Thursday PM peak, attributable to the planning proposal traffic. Any proposed mitigation measures should be detailed.
18. The extent of widening of Hawkesbury Valley Way should be identified in the revised mid-block capacity assessment.
19. Once agreed, strategic concept plans will need to be included in the traffic report for any works proposed within the road reserve of Hawkesbury Valley Way to demonstrate any land components required to accommodate the improvements. Vehicle swept path plans for the largest design vehicles will also be required.
20. To encourage the use of active and public transport by future employees, a shared path of at least 2.5 metres width from Clarendon Station to the development site should be provided (in accordance with Austroads requirements).

Upon receipt of an addendum traffic report to address the above issues, TfNSW and Roads and Maritime will provide further review of the traffic report and accompanying modelling and plans before providing further comments on the planning proposal.

## Attachment B: Modelling comments

Roads and Maritime has undertaken a preliminary review of the Sidra models submitted and provides the following comments to be addressed in revised models:

Generally:

- A Sidra network model should be considered for the modelling to connect all interacting intersections to give a better understanding of the delay and queueing impacts within the network, before and after the development. This is particularly important for those closely spaced/signalised intersections.

### Percival Street/Hawkesbury Valley Way

- No heavy vehicles have been inputted for all scenarios. Given the proposed B7 zoning, and considering Hawkesbury Valley Way is a B-double approved route, this should be addressed.
- Default 3.3m lane width and 0% grade were set for all movements for all scenarios. Justification should be provided and adjustments made where necessary.

### Site Access/Hawkesbury Valley Way

- No heavy vehicles have been inputted for all scenarios. Given the proposed B7 zoning, and considering Hawkesbury Valley Way is a B-double approved route, this should be addressed.
- Default 0% grade was set for all movements for all scenarios.
- 4m lane width was used for all scenarios, not aligned with other intersection settings.

### Moses/Cox Street/Hawkesbury Valley Way

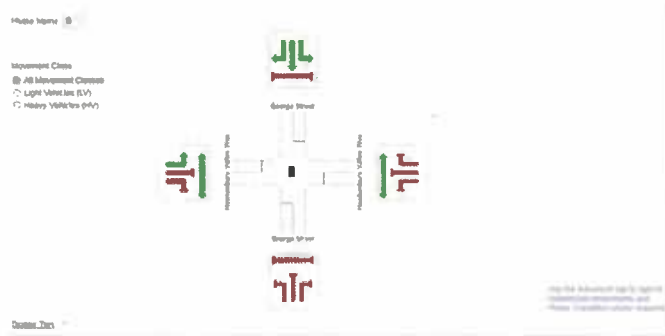
- 60km/h should be coded along Hawkesbury Valley Way as opposed to 70km/h.
- No heavy vehicles inputted for all scenarios.
- Extra bunching should be inputted for Hawkesbury Valley Way due to its proximity to the signalised intersection at Hawkesbury Valley Way and George Street. Guide is as below:

Table 3: Maximum values for Extra Bunching

Distance to Upstream Signal (m)	<100	100-200	200-400	400-800	600-800	>800
Extra Bunching (%)	25	20	15	10	5	0

### George Street/Hawkesbury Valley Way

- 60km/h should be coded along Hawkesbury Valley Way.
- No heavy vehicles and default 0% grade were inputted for all scenarios.
- East leg of Hawkesbury Valley Way right turn length should be set at 40m. The taper length of 20m does not provide storage for a vehicle and would block the adjacent through lane.
- The site operates at 100 s cycle length during the peaks and should be applied for existing scenarios.
- The pedestrian movement priority should be turned on for all left turning movement in all scenarios.
- The B phase pedestrian movement should be turned off along Hawkesbury Valley Way West leg in all scenarios. See below:



#### Macquarie Street/ Hawkesbury Valley Way

- The SIDRA file provided was corrupted. Roads and Maritime was unable to review the file. The model should be checked for the issues noted for other intersections reviewed and any errors corrected.

#### Racecourse Road/ Hawkesbury Valley Way

- No heavy vehicles and default 0% grade were inputted for all scenarios.
- SIDRA network model should be considered to be modelled to connect intersections in order to have better picture about the delay and queue within the network corridor before and after the development.

Council ref: LEP002/12/03

Mr. Karu Wijayasighe  
Senior Strategic Land Use Planner  
Hawkesbury City Council  
PO Box 146  
Windsor NSW 2756

Dear Mr. Wijayasighe,

**Planning Proposal – 120-188 Hawkesbury Valley Way, Clarendon NSW 2756**

Transport for NSW (TfNSW) received correspondence on 1 April 2019 from *Urban City Consulting* (the Consultant) in relation to the subject planning proposal. It is understood that Hawkesbury City Council were aware that this correspondence would be sent to TfNSW.

The information provided by the Consultant has been reviewed by both Roads and Maritime Services (Roads and Maritime) and TfNSW within the context of previous submissions provided by both agencies. Notwithstanding, the following comments are provided in **Attachment A** for Council's consideration to progress the subject planning proposal to amend the *Hawkesbury Local Environmental Plan 2012*.

If required, TfNSW and Roads and Maritime would be willing to facilitate a meeting with the proponent to discuss the response or any further matters to progress the proposed LEP amendment.

Previous correspondence from TfNSW and Roads and Maritime on this matter has been provided at **Attachment B** of this response for context.

If you require further information on any of the above, please don't hesitate to contact Ken Ho, Transport Planner, via email at [ken.ho@transport.nsw.gov.au](mailto:ken.ho@transport.nsw.gov.au).

Yours sincerely,



17/6/2019

Mark Ozinga  
**Principal Manager, Land Use Planning & Development  
Customer Strategy & Technology**

TfNSW reference: CD19/02768  
RMS reference: SYD14/00278/09

## **Attachment A: Agency response to additional information provided by Consultant**

The following documents were provided by the Consultant:

- Letter addressed to TfNSW prepared by Urban City Planning, dated 1 April 2019
- Traffic and Transport Impact Statement prepared by Thompson Stanbury & Associates, dated 29 March 2019
- Proposed Amendment to Hawkesbury LEP 2012, Planning Proposal, prepared by Urbis, dated September 2013
- Proposed Development Masterplan (4578-SK02A) prepared by Leffler Simes Architects, dated 29 March 2019

In response to the information provided, the following comments are provided to progress the planning proposal for the subject site.

### **1. Additional information requested**

#### Comment

The proposed signalised intersection on Hawkesbury Valley Way was stated as the preferred access configuration by Roads and Maritime. Analysis of future intersection operation has been provided within the traffic report. However, it was previously requested that SIDRA intersection modelling files were to be submitted to Roads and Maritime for review. In this regard, further information is required to provide comments on the suitability of the analysis undertaken to date. Verification and acceptance of this analysis will be required *prior* to considering any concept design, which would inform the approximate land-take of the future intersection.

Furthermore, clarification is sought on the application of the 20% reduction in traffic generation due to “linked trips” within the site. There is the potential that the future uses of the site would not generate the assumed proportion of linked trips as it would be subject to the type of retail offering from prospective tenants. In this regard, it would be recommended that a sensitivity analysis is included to understand the scenario whereby no linked trips occur.

#### Recommendation

The proponent should provide the following additional information:

- SIDRA modelling files that have informed the findings within the traffic report;
- A sensitivity analysis assuming a scenario with no linked trips between the retail uses.

### **2. Infrastructure delivered via planning agreement**

#### Comment

The advice remains that the proposed Voluntary Planning Agreement (VPA) should be entered into with Council *prior* to the proposed LEP amendment being made, to ensure that infrastructure works will be constructed to support the future development.

#### Recommendation

Any VPA should include, but not be limited to, the following details:

- draft schedule of works, which so far would include:

- traffic signals at Hawkesbury Valley Way,
- duplication of Hawkesbury Valley Way along the full frontage of the site; and
- shared path connection from the site to Clarendon Station;
- land dedication for future widening of Hawkesbury Valley Way and intersection works;
- cost estimates (land and capital); and
- timing requirements.

The preparation of the VPA should be undertaken in consultation with TfNSW and Roads and Maritime, which would include discussions on specific details/expected standards of the abovementioned.

### **3. Development Control Plan**

#### Comment

There would be specific design parameters that any future development would need to adhere to, including land buffers/setbacks from the rail corridor, setbacks from Hawkesbury Valley Way and internal access points. It is envisaged that this would be provided in a site-specific Development Control Plan.

#### Recommendation

The preparation of any draft DCP for the site should be undertaken in consultation with TfNSW, Roads and Maritime and Sydney Trains. Ensuring the site-specific DCP design parameters are adequate will avoid lengthy negotiations, costs and delays occurring at the DA stage.

### **4. Land to the south of the rail corridor**

#### Comment

The Consultant has stated that discussions are being undertaken with Sydney Trains on access roads across the rail corridor, with plan preparation underway to seek preliminary approval for the crossings. Furthermore, it is understood that discussions are being had with Council regarding limitations on the land associated with Stage 3 of the masterplan.

Roads and Maritime has stated that the rezoning of the land associated with the Stage 3 development will not be considered for support unless the matter of the access roads across the rail corridor is resolved.

#### Recommendation

Should Council wish to progress the planning proposal, Council could consider classifying the Stage 3 land portion as a “deferred matter” (or any other appropriate/ similar planning mechanisms) until approval for crossings have been obtained.

Council ref: LEP002/12/03

Mr. Karu Wijayasighe  
Senior Strategic Land Use Planner  
Hawkesbury City Council  
PO Box 146  
Windsor NSW 2756

Dear Mr. Wijayasighe,

**Planning Proposal – 120-188 Hawkesbury Valley Way, Clarendon NSW 2756**  
**Additional information received from proponent**

We understand that Council is aware that Transport for NSW (TfNSW) received additional information on the transport assessment for the above planning proposal to amend the *Hawkesbury Local Environmental Plan 2012* from *Urban City Consulting* (the Consultant) in late June 2019.

This information has been reviewed within the context of previous advice given, and the following comments are provided for Council's consideration.

The revised assessment projects that future mid-block volumes on Hawkesbury Valley Way, adjacent to the site's frontage, would be in the order of 3,700 vehicles per hour (bidirectional) during the PM peak period at full development of the site (11.3 ha large format bulky goods retail and 15.1 ha commercial/business park). This would exceed the existing mid-block capacity of Hawkesbury Valley Way, likely triggering the need to widen the existing carriageway between Richmond and Windsor. This would be in addition to any improvements needed at the intersections of Hawkesbury Valley Way with Macquarie Street and George Street, given the assessment shows this would be overcapacity at full development of the site. Further detailed information is provided at the end of this submission in **Attachment A**.

In terms of the above, it is advised that there are no current proposals being funded by TfNSW to widen Hawkesbury Valley Way or upgrade the signalised intersections at Windsor. Should Council seek to proceed with the amendment in its current form, ahead of any state funded network improvements, funding and delivery of additional transport infrastructure would need to be funded in whole by the Proponent and/or Council.

We note the planning priority in Council's draft Local Strategic Planning Statement to implement the Hawkesbury Employment Lands Strategy 2008, which identifies the subject site for investigation as a Business Park. Notwithstanding this, it is recommended that the intensity of future development as envisioned by the planning proposal should be revised to take into consideration the existing constraints to expanding Hawkesbury Valley Way, including (but not limited to):

- property acquisition requirements along the corridor;
- potential impacts on the streetscape and community between Richmond and Windsor due to a widened road corridor; and
- constraints in providing additional road capacity across the Hawkesbury River floodplain/ South Creek.

Any revision to the proposed LEP amendment should reduce the potential quantum of future development and/or consider alternative land use zones/mix (additional permitted uses) with less traffic generating potential. Furthermore, the location and number of access points should also be considered to manage impacts on the transport network.

If it assists, TfNSW can facilitate a meeting with Council to discuss. If you have any queries in relation to this matter in the interim, please don't hesitate to contact Mark Ozinga, Principal Manager Land Use Planning and Development at [development@transport.nsw.gov.au](mailto:development@transport.nsw.gov.au).

Yours sincerely,



18/5/2020

**Mark Ozinga**

Principal Manager Land Use Planning & Development  
Customer Strategy and Technology

TfNSW reference: CD19/02768

## **Attachment A: Detailed comments on the proposal and revised traffic assessment**

### **1. Mid-block capacity on Hawkesbury Valley Way**

Section 5.6 of the revised transport assessment estimates that at Stages 1, 2 and 3 of development (full site development) on Hawkesbury Valley Way during the PM weekday peak hour there would be some:

- 2014 vehicles travelling eastbound; and
- 1732 vehicles travelling westbound

This is a total of 3,746 vehicles per hour (bidirectional), which exceeds the mid-block capacity of Hawkesbury Valley Way of 2,800 vehicles per hour<sup>1</sup>. The mid-block capacity is less than the estimated future demand on the road and therefore additional lanes along the length of Hawkesbury Valley Way would likely be required between Richmond and Windsor.

### **2. Future intersection operation constraints at Hawkesbury Valley Way with George Street and Macquarie Street**

The revised assessment provided indicates that intersections at Hawkesbury Valley Way with Macquarie Street will be overcapacity in the post-development scenario with the intersection performance reducing from LOS D to LOS F (average delays increasing from 52 sec to 304 sec) during the weekday PM peak. This reduction in performance would be solely attributable to the intended future development of the site without any consideration of background/regional traffic growth. Having consideration for traffic growth and the future development, both intersections of Hawkesbury Valley Way with Macquarie Street and George Street would require improvements including land take to accommodate improvements.

### **3. No current proposals to increase capacity on Hawkesbury Valley Way**

It is advised that there are currently no funded proposals by TfNSW to widen Hawkesbury Valley Way or upgrade the abovementioned intersections. In this regard, should Council seek to proceed with the amendment ahead of any state funded network improvements in the future, funding and delivery of additional transport infrastructure must be wholly borne by the Proponent and/or Council.

---

<sup>1</sup> Assuming an approximate capacity of 1,400 veh/h per lane for uninterrupted flow, based on AustRoads Guide to Traffic Management Part 3: Traffic Studies and Analysis 2017 (pg. 39)

## **Comments on Traffic Impact Statement dated 16 October 2020 for Stages 1-3 of a Proposed Business Park Development at 120-188 Hawkesbury Valley Way Clarendon**

### **Midblock Performance Assessment**

#### Comment

The following comments are provided in relation to the midblock Performance Assessment:

- The Traffic Impact Statement (Traffic Report) assumes 3% background traffic growth per annum for Hawkesbury Valley Way, which was based on the growth rate for another road section (Bells Line of Road). Based on the output of the Sydney GMA Strategic Traffic Forecasting Model (STFM), the predicted traffic growth along Hawkesbury Valley Way is minimal (0 - 0.1% per annum) during the afternoon peak period. (A copy of the model output is attached.)
- No basis or justification has been provided for the proposed reduction up to 30% of traffic movements along Hawkesbury Valley Way as a result of the proposed improvements to Richmond Road.

Based on the above, it is advised that Hawkesbury Valley Way does not warrant any midblock upgrades due to background traffic growth at this stage.

#### Recommendation

The Traffic Report is amended to include the following:

- No background growth is expected occur along the subject section of Hawkesbury Valley Way;
- The feasibility of providing future second access in the south needs to be demonstrated in detail; and
- Further details in relation to the proposed reduction up to 30% of traffic movements along Hawkesbury Valley Way as a result of the proposed improvements to Richmond Road.

### **Intersection Performance Assessment**

#### Comment

Based on the attached STFM output, the predicted average traffic growth at the following intersections on Hawkesbury Valley Way is minimal (0 - 0.3% per annum) during the afternoon peak period.

- Hawkesbury Valley Way and Macquarie Street intersection; and
- Hawkesbury Valley Way and George Street intersection.

Based on the above, it is advised that background traffic growth for the above intersections does not in itself warrant any intersection upgrades in the future at this stage.

### Recommendation

It is requested that the Traffic Report needs to be amended to include:

- No background growth for these intersections; and
- The proposed intersection arrangements to maintain existing performance of these intersections with the proposed development for all stages.

### **Proposed Midblock and Intersection Improvements**

#### Comment

Based on the results of the midblock and intersection assessments, a list of feasible infrastructure upgrades and timing of these upgrades need to be identified to mitigate the traffic impacts of the proposed development.

#### Recommendation

It is requested that a proposed midblock and intersection improvements plan needs to be overlaid onto an aerial map to show that all suggested upgrades are physically feasible. Electronic copies of the SIDRA files developed to identify the infrastructure upgrades need to be provided for TfNSW review and endorsement.

### **Costing of Infrastructure**

#### Comment

Following the endorsement of the proposed midblock and intersection improvements by TfNSW, the proposed infrastructure needs to be costed for the preparation of a Voluntary Planning Agreement (VPA).

#### Recommendation

It is requested that strategic concept plans and strategic costings (with appropriate contingencies) for all upgrade works identified (including access proposals) be provided. The strategic concept plans and costings would need TfNSW endorsement. Note: The strategic costing information should be provided.