

Comment on the Dominion Road Mixed-use Development Application

1. Contact Details

Please ensure that you have authority to comment on the application on behalf of those named on this form.

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| Organisation name (if relevant) | Auckland Transport | | |
| *First name | Sarah | | |
| *Last name | Jaff | | |
| Postal address | Private Bag 92250, Auckland 1142 | | |
| *Home phone / Mobile phone | | *Work phone | AT (09) 448-7149 |
| *Email (a valid email address enables us to communicate efficiently with you) | sarah.jaff@at.govt.nz | | |

All sections of this form with an asterisk (*) are mandatory.

2. *We will email you draft conditions of consent for your comment

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| ✓ | I can receive emails and my email address is correct | <input type="checkbox"/> | I cannot receive emails and my postal address is correct |
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3. Please provide your comments on this Application

Overall Summary

- Auckland Transport welcomes the opportunity to provide commentary on the proposed development at 360-388 Dominion Road to assist the Expert Consenting Panel (the Panel). Auckland Transport has reviewed the information supplied by the applicant and notes that Auckland Transport was engaged in a pre-application process through Auckland Council during which the matters outlined below were discussed. Auckland Transport has also provided a separate comment (11 June 2021) to the Environmental Protection Agency (EPA) in response to specific questions (received in the letter dated 27 May 2021).
- Auckland Transport has conducted a review of the transport related matters of the proposal in consideration of the provisions of the Auckland Unitary Plan (AUP) and as the Road Controlling Authority, and comprehensively reviewed the Integrated Transport Assessment (ITA) prepared by Traffic Planning Consultants (TPC) dated 19 April 2021 on behalf of the applicant. Auckland Transport has also reviewed the infrastructure report provided with the application in relation to stormwater matters. Auckland Transport's review of the application also includes subject matter expert review of the transport modelling undertaken by the applicant in support of the ITA. This review has been provided by the Auckland Forecasting Centre (AFC) **Attachment 1**. The Auckland Forecasting Centre operates as a centre of excellence providing data, analysis and advice around land use scenarios, growth impacts, travel demand and traffic forecasting. The AFC is a partnership between Auckland Council, Waka Kotahi and Auckland Transport.
- Schedule 7 of the COVID-19 Recovery Fast-track Consenting Order 2020 (the Act) lists information that must be submitted to the Panel with the consent application. This includes an integrated transport assessment, including modelling and analysis that covers five main matters:

“an integrated transport assessment, including modelling and analysis that covers—

- (i) vehicle generation and its effects on traffic and parking in Dominion Road and the local road network; and*
 - (ii) the effects of the project on public transport, including service reliability and infrastructure on Dominion Road; and*
 - (iii) the effects of the project on motorcycle safety; and*
 - (iv) the effects of the project on the strategic role and transport mode priorities of Dominion Road; and*
 - (v) mitigation measures to be taken in relation to these matters;”*
4. An ITA is also required with reference to AUP Policy E27.3(2) of the AUP, which requires major proposals for discretionary consent to prepare an ITA.
 5. Whilst an ITA has been provided by the applicant, Auckland Transport considers that it does not appropriately respond to the matters outlined in this schedule and it also does not address the relevant matters in the provisions of the AUP. The analysis and assessment provided are more in line with a Traffic Impact Assessment (TIA) which largely assess the impacts of vehicular traffic on the surrounding road network, with the assumption that all people would be travelling to and from the site or area by private vehicle. Such an assessment does not place enough emphasis on other users of the transport system such as pedestrians, cyclists and public transport users. The main objective of an ITA is to ensure that the transportation effects of a new development proposal are well considered, that there is an emphasis on efficiency, safety and accessibility to and from the development by **all** transport modes where practical; and that the adverse transport effects of the development have been effectively avoided, remedied or mitigated.
 6. Auckland Transport concurs with the reasons for the consent as outlined in the Assessment of Environmental Effects (AEE) and notes that the matters of discretion refer back to the relevant objectives and policies. The overall activity status is a Discretionary activity and so, in considering the application, the Panel is guided by the objectives and policies outlined in the AUP.
 7. In respect to the relevant AUP E27.2 Objectives and E27.3 Policies in the AUP, the following is summarised in relation to the ITA’s commentary:
 - a. The contents and conclusions of the ITA do not consider alternative modes of transport appropriately and do not provide an emphasis on user safety and accessibility in a location where this should be the primary focus;
 - b. The proposed ‘Scenario B’ does not appropriately mitigate the effects in the context of the local transport environment and strategic nature of Dominion Road where public transport and active modes (including walking and cycling) provision are a priority;
 - c. The development does not promote or prioritise such alternative modes of transport in a location where this should be a focus;
 - d. Scenario B exposes road users to increased risk, especially the vulnerable, in a location already highlighted as high risk for crashes;
 - e. The level of additional turning movements generated at the intersections are not safely managed by the proposal and have the potential to create serious adverse effects on road users; and
 - f. The proposed 13m wide vehicle accessway (loading and vehicle access) off Prospect Terrace does not provide appropriate amenity and safety for pedestrians along the footpath environment.
 8. In addition, the delays that will be created for public transport users, the lack of provision for cycling and walking, the vehicle crossing widths and proposed stormwater management approach will generate significant adverse effects.
 9. The following comments provide further commentary on the key concerns with the development that are not considered to have been addressed appropriately.

Strategic Role of Dominion Road

10. Dominion Road is a primary Arterial corridor in the AUP and an important Strategic route which is defined as a critical link for movement of people to be managed as part of an integrated multi-modal network. It is part of the Frequent Transport Network with current modal priorities being public transport and walking. The Dominion Road public transport corridor is the third busiest in Auckland and provides frequent public transport services,

using bus priority/bus lanes, which run with the same daily headway to provide consistent reliability for customers (minimum of 15 minute headway) from 7am to 7pm weekdays and weekends. These types of routes are the core network of bus services which, from a customer experience point of view, can be relied upon without reference to a timetable.

11. Dominion Road has little to no private vehicle capacity in the peak times. Additional capacity on Dominion Road will in the future only be able to be achieved through increases in public transport patronage and therefore this mode should be encouraged.
12. Dominion Road is part of the Strategic Cycle Network identified in Future Connect and is classified as Regional (which defines an integral route for this user group in the Auckland region and is focused on longer distance trips with the potential for becoming an inter-regional connection) with Grange Road being part of the cycling Connector-level Strategic Network (connections to major routes and local destinations such as neighbourhood centres and schools).
13. The guidelines available on Auckland Transport's website (<https://at.govt.nz/about-us/manuals-guidelines/integrated-transport-assessment-guidelines/preparing-an-ita/>) on how to prepare an ITA place a particular emphasis on using the policy and strategy context in Auckland as a tool within the ITA process to encourage applicants and their practitioners to consider the full range of transport modes when planning their development proposal. The Auckland Plan 2050 has a number of relevant focus areas including *make walking, cycling and public transport preferred choices for many more Aucklanders, move to a safe transport network free from death and serious injury, and better integrate land-use and transport*. It is considered that the applicant has not sufficiently addressed the policy and strategy context in the preparation of the ITA submitted.
14. The strategic approach to transport in Auckland has been further developed through the Auckland Transport Alignment Project (ATAP). ATAP seeks to ensure Auckland has a transport system that encourages more people to use public transport, to walk and to cycle, addresses congestion, increases accessibility, reduces negative impacts on the environment and sees a reduction in deaths and serious injuries on our roads. Auckland Transport has developed 'Future Connect' which is the long-term network plan for Auckland's transport system. Future Connect is a 10-year system planning tool (building towards a 30-year outlook). Future Connect maps the most important links for all transport modes. Ultimately, it will set a 30-year vision for Auckland's transport system. The final 10-year plan will be published following the approval of the Regional Land Transport Plan. Information on Future Connect is available on Auckland Transport's website (<https://at.govt.nz/about-us/transport-plans-strategies/future-connect-auckland-transport-network-plan/>). In addition, the Regional Public Transport Plan (RPTP) outlines the public transport network proposed for the Auckland region for the period out to 2028. The RPTP recognises Dominion Road's significant role within the transport network.
15. In relation to AUP E27.2 (1) and (2), and given Dominion Road's strategic importance in the context of the wider and local transport network, assessment of how additional trips generated by all users, including 'people movement' are appropriately assessed, mitigated and managed is of utmost importance at this location. As noted above, Dominion Road is identified as an Arterial in the AUP.
16. Auckland Transport notes Section 7 of the ITA refers to 'Effects and Mitigation' which states:

"When considering effects of this proposal, agreement was reached with Auckland Transport on those categories that would be given priority in terms of assessment and any potential mitigation. For this proposal, the following priorities were agreed:

 1. *Effects on public transport*
 2. *Effects on pedestrian/cyclist safety and amenity*
 3. *Effects on general traffic"*
17. Auckland Transport advises that it did not inform the applicant that safety should be seen as a second priority. Consideration of effects on User safety and modal priorities are separate matters. User safety is of utmost priority with such an assessment of effects.

ITA structure and methodology

18. As noted above, the main objective of an ITA is to ensure that the transportation effects of a new development proposal are well considered, that there is an emphasis on efficiency, safety and accessibility to and from the development by all transport modes where practical; and that the adverse transport effects of the development have been effectively avoided, remedied or mitigated.
19. As part of the pre-application process, Auckland Transport assisted the applicant's transport consultant in relation to understanding the strategic context of Dominion Road and the surrounding transport network, including the relative modal priority and the modelling methodology. This included recommending which type of model was appropriate to assess the operational effects - this was noted to be a micro-simulation Paramics model.
20. Various sources of data were supplied to TPC to assist in preparing the base model (which captures how the route currently operates) which included, but was not limited to, traffic count data for Dominion Road, bus travel time data, traffic signal loop data from the existing signalised crossing/intersections and cycle counts from an existing detector loop.
21. Following revision during the pre-application process, the base model was considered satisfactory in relation to capturing the existing operation of the route. However, the micro-simulation model was not used efficiently in relation to optioneering, i.e., the analysis of options used to derive those modelled in the ITA.
22. The value of preparing a micro-simulation model built for an ITA is to explore different mitigation options and ultimately develop a solution that is optimal for the given development (considering provision of alternative modes of transport). However, TPC's assessment used the model to assess the operational effects of vehicular trips rather than using the data as part of an analysis in providing and encouraging alternative modes of transport at the outset.
23. Relevant to E27.2 (1) and (2) of the AUP, the methodology for mitigating effects within an ITA are firstly on reducing travel demand, including measures in achieving this, how to utilise the network more efficiently considering priority modes, encouragement of alternative modes of transport and active modes - all prior to consideration of adding roading capacity. Such an option should only be considered as the last resort.
24. The ITA does not provide evidence of this methodology for assessment and proposes to add roading capacity from the outset as a mitigation measure, which is representative of the preferred option put forward in the application's ITA (Scenario B).
25. It is considered that the model and accompanying data could have been better utilised to inform a range of options rather than be fixed to provide traffic effects of a measure the applicant proposed at the outset. As noted above, the preparation of an ITA should only consider adding more road capacity if no other alternatives exist and that such a position can be substantiated by evidence.
26. Whilst TPC had the appropriate data to inform their analysis, the data was not used to appropriately inform differing options for their mitigation measure with relation to characteristics and modal priorities of the route, the land use, zoning and appropriateness of the scale of development at this location. The options presented in the ITA were focused on addressing vehicular traffic (congestion) effects, rather than options which considered addressing effects from an analysis of all transport modes.
27. In relation to predicting active modes, a qualitative assessment of the cycling and pedestrian network should be undertaken. This includes an assessment of the current amenities and whether these would require upgrade due to the increased demand, and whether new infrastructure is required to accommodate the additional demand. Having taken such an assessment, it may be appropriate to amend predicted active modes share when assessing trip demand and trip generation. Such an analysis would better inform and encourage alternative mode choice to offset private vehicular demand.
28. Auckland Transport considers that the optioneering presented in the ITA as the options proposed by TPC do not consider critical transport issues at the site and the local transport network. This includes active modes, effects on public transport and effects of the additional trips generated to the local roads as a result. Any

mitigation must have regard to the proposed function of the adjoining roads. Such considerations are listed within Auckland Transport's ITA Guidelines which include, but are not limited to:

- a. Changes proposed to the location, use, design and intensity of the land use so that the site or development area is more supportive of the transport networks in the area;
 - b. Different parking rates to those in the AUP to encourage fewer trips by private vehicles;
 - c. Provision of new, or upgraded, footpaths and crossing points for pedestrians and cyclists at key points both within and external to the site;
 - d. Consideration to cyclist amenity and end of trip cycle facilities for both visitor and staff; and
 - e. Whether existing roads surrounding the site require an upgrade to provide an appropriate level of amenity for pedestrians, cyclists and traffic.
29. It is expected that the resulting trips predicted for each travel mode should be consistent with all relevant factors, such as traffic generation rates of the expected land-use type; parking provisions; public transport routes, frequencies and capacity; and walking and cycling facilities. This level of analysis would then inform the mitigation measures appropriate to address the effects for the site and land use.

Alternative Modes of Transport

Cycling

30. Auckland Transport notes that demand for cycling as a mode of transport in this location would increase as a result of the development, noting there are 122 residential apartments, commercial and retail activities. Cycle counts were given to the applicant's team from an existing detector loop north of View Road which showed in the order of 500 week day cyclists (referred to under section 3.4 of the ITA). Cycling as a mode of transport is increasing, especially the use of e-bikes, and would be a mode of choice for some residents and users of the development. Auckland Transport notes that there has not been sufficient provision given to cyclists in the ITA and the effects of Scenario B on this user group (more detailed analysis of Scenario B is addressed below), including the level of cycle parking proposed and effect of the proposed transport measures under Scenario B, also noting that cyclists use the bus lane on Dominion Road. In relation to AUP E27.2(2) of the AUP, Auckland Transport strongly recommends that cycle parking provisions and accessibility are provided for and meet the AUP requirements in terms of cycle storage.

Walking

31. All three road frontages are part of the walking strategic network. The addition of a vehicle traffic lane on Prospect Terrace would result in the narrowing of the footpath to 2m. The space for those walking (a priority mode), i.e. footpath, is reduced to make space for general vehicles, although neither Grange Road nor Prospect Terrace are classified as strategic for general traffic but are strategic for active modes. The narrowing of footpaths to provide for vehicular traffic lanes is not aligned with the strategic modal priorities for Dominion Road and is an adverse effect on pedestrian amenity. With the increase in pedestrian movement in the immediate transport network, all footpaths around the site should be a minimum of 2.4m width, which is highlighted within Auckland Transport's Transport Design Manual (TDM) standard. With relation to E27.6.1, E27.2(2) and (5) of the AUP, the narrowing of footpaths result in effects which do not align with the provisions and relevant objectives and policies of the AUP.

Public Transport Reliability

32. The proposal under Scenario B would result in an increase to bus travel times by one minute in the PM peak and three minutes in the Saturday mid-day peak which is concerning.
33. The ITA seems to rely on Auckland Transport to address the effects of the delays incurred on bus operations (1-3 minutes during the peak periods) by extending the existing bus lane hours north bound. Consideration to extend bus lane hours needs to be considered in the context of the overall network and would include public consultation and extensive removal of on-street parking and the outcome of any consideration cannot be completed to inform this consent application. Therefore, the effects on public transport reliability need to be considered as though they would remain in place. The proposal should be looking to propose measures that would avoid the effect on public transport if another form of mitigation cannot be proposed that the applicant can implement.

Transport Modelling

34. Appropriate assessment of transport modelling is relevant to inform effects in the optioneering analysis, in the context of objective (1) and (2) of E27.2 of the AUP which include:
- Land use and all modes of transport are integrated in a manner that enables:
- the benefits of an integrated transport network to be realised; and
 - the adverse effects of traffic generation on the transport network to be managed.
 - An integrated transport network including public transport, walking, cycling, private vehicles and freight, is provided for.
35. Transport modelling is a measure of testing various options which are following a level of analysis of the strategic nature of a route and the provision of alternative modes of transport having been carried out. A micro-simulation model was recommended and used to analyse the effects of the development. As highlighted within the sections above, there is a lack of evidence to suggest the above methodology was considered in the effects assessment.
36. A review of the modelling assessment prepared by the applicant has highlighted concerns and matters raised earlier to the applicant's team which have not been addressed or appropriately mitigated. In summary, there are deficiencies with the model for Scenario B which prevent it from accurately representing this option's operational performance.
37. Another key matter to identify is that the application's proposed raised tables at both Grange Road and Prospect Terrace have not been included in the modelling effects assessment and the model itself.
38. The AFC ran a test run with a raised table at the intersection of Dominion Road and Prospect Terrace which showed queued vehicles turning left into Prospect Terrace, due to the raised table, forcing the approaching bus to reduce speed to 2k/hr, causing an operational effects to buses. The purpose of the proposed raised table is to slow approaching motorists, therefore, the effects of this on the operation of the intersection highlighted above in the AFC's test run is what would occur in reality. TPC has not included this in the model which raises concern with its outputs and subsequent results informing their assessment.
39. The model includes unreleased vehicles. An unreleased vehicle is one which cannot enter the model due to congestion and therefore the effects on the level of these vehicles having to reroute as a result is not captured. The proposed development adds approximately 1500 extra vehicular trips over the 3 hour peak period for both the Thursday and Saturday peak periods, and the vast majority of these trips are generated by the supermarket (over 1000 trips in each period). Around 470 of these trips are being generated directly to/from the side roads. The likely effects of the above are the potential for these motorists to put additional pressure on local side roads and for motorists to 'rat-run' to bypass the congestion. The effect of this has not been addressed. Please refer to the AFC's review memorandum (Attachment 1) for the analysis.
40. In relation to the vehicular trip generation assessment, the AFC noted that TPC had used a lower bypass trip rate than what was previously recommended which consider the existing trips on the network. This is highlighted under point 6 of the AFC's memorandum.

Vehicle Crossing Widths

41. The AUP standard E27.6.4.3 allows a maximum vehicle crossing width of 6.0m (two-way) for a vehicle crossing serving 10 or more parking spaces. All four proposed vehicle crossings serving the site from both Prospect Terrace and Grange Road exceed the standard with two being 7.2m wide, the loading egress access being 5.95m wide (one way) and a combined vehicle crossing serving loading entry and residential access off Prospect Terrace being 13m wide (7m wider than the maximum permitted AUP width).
42. No tracking plans have been provided to assess the non-compliance of the widths of the vehicle crossings or to support the requirement for such widths. Auckland Transport has previously raised concern with the 13m wide vehicle crossing, and advised a crossing of this width would not be supported. The width would result in adverse effects on pedestrian amenity and safety. The increased width also encourages turn in speeds for vehicles, which results in conflicts with vulnerable roads users on the footpath. With the increase in all user

movement on the footpath and road network, the effect of the non-compliance has not been appropriately assessed.

43. The proposed 13m wide combined vehicle access off Prospect Terrace does not align with the relevant objectives and policies under the AUP, seeking that pedestrian safety and amenity along public footpaths is prioritised (Objective 5, E27.2) or the assessment criteria with relation to the non-compliance of width - this has not been appropriately addressed. There is also concern with the tracking path of the loading truck entering Prospect Terrace from Dominion Road. The tracking curve shows the truck would encroach onto the north bound lane on Dominion Road, blocking through movement.
44. Policy E27.3(20) of the AUP is relevant in respect to access:
(20) Require vehicle crossings and associated access to be designed and located to provide for safe, effective and efficient movement to and from sites and minimise potential conflicts between vehicles, pedestrians, and cyclists on the adjacent road network.
45. Policy E27.3(17) of the AUP is also relevant to the design of the loading access:
(17) Require parking and loading areas to be designed and located to:
 - (a) avoid or mitigate adverse effects on the amenity of the streetscape and adjacent sites;*
 - (b) provide safe access and egress for vehicles, pedestrians and cyclists;*
 - (c) avoid or mitigate potential conflicts between vehicles, pedestrians and cyclists; and*
 - (d) in loading areas, provide for the separation of service and other vehicles where practicable having regard to the functional and operational requirements of activities.*

Proposed Mitigation 'Scenario B'

46. The proposal seeks to provide two additional traffic lanes on Prospect Terrace and Grange Road as a mitigation measure, referred to in the application as Scenario B. Widening of the two local roads at the intersection with Dominion Road without appropriate control does not prioritise user safety, nor promote public transport, walking or alternative mode choice in a location where this should be a priority focus.
47. As identified in the ITA, Auckland Transport is aware of the trend in motorcycle crashes and in 2020 undertook a motorcycle safety trial. This trial was programmed to be completed by mid-2020 however this has been delayed due to Covid-19. In any event, there is an existing safety concern in the area regarding motorcycles and right turning crashes at the Prospect Terrace / Dominion Road intersection in particular. This needs to be considered in the context of the proposed mitigation and the strategic modal priority.
48. In summary, the dual lane exit approach proposed in Scenario B increases the width of risk exposure to pedestrians and vulnerable road users (VRUs). The following points are considered key concerns with Scenario B:
 - a. The proposed changes to both intersections do not align with the principles of Vision Zero for all users and create a worse than the existing scenario in relation to user safety. Relevant design principles are outlined in the Auckland Transport 'Transport Design Manual' and reference can also be had to the principles in both the 'Vision Zero for Tāmaki Makaurau Transport Safety Strategy and Action Plan to 2030' as well as the 'Road to Zero: New Zealand's Road Safety Strategy for 2020-2030'. These are relevant other matters than can be had regard to in the consideration of this application;
 - b. The pedestrian crossing distance across both Grange Road and Prospect Terrace is increased, thereby increasing exposure;
 - c. The increase of the number of lanes approaching Dominion Road will also increase the exposure of people on bicycles travelling along Dominion Road (note this road is classed as a regional link in the cycle and micro-mobility strategic network);
 - d. The Grange Road approach does not include any pedestrian provision and pedestrians would have to cross three traffic lanes in one movement;
 - e. With the increase in vehicular trips generated to both intersections, the frequency of potential risk is increased to users, including the motorcycle and bicycle user group travelling along Dominion Road. The ITA does not provide an appropriate assessment on the effects of the additional vehicular turning

movements (of which are more than doubled to existing) on these user groups but only acknowledges the existing serious crash history and notes the motorcycle safety trial by Auckland Transport;

- f. The vehicle waiting to right turn out of the side road blocks visibility to the motorists turning left out of the side road and creates a blind spot of inter-visibility between motorists and pedestrians/VRUs;
 - g. The ITA notes the main turning movements to enter and exit the site would be via a right turn into Grange Road for vehicles travelling north and a left into Prospect Terrace for vehicles travelling south. For vehicles exiting, the main movement would be left turn out of Grange Road and right turn out of Prospect Terrace;
 - h. The right turn into the side roads is the main crash type involving the motorcycle user group safety issue. Auckland Transport's Road Safety team have advised that the trial was previously introduced following a review of the existing operation. The right turn movements will increase to a level not intended for the proposed measure by the trial. The vehicle left turning out of the side road may need to edge further into the bus lane to be able to see as a right turner would restrict the visibility of oncoming traffic. This is noted in the ITA and presents an increased safety issue for motorcyclists and cyclists using the bus lane. With the increased vehicular demand for the left turn into the side roads, vehicles may wait for pedestrians to cross and this will cause operational issues at these intersections;
 - i. A raised table at this location may be mistaken as a priority measure for pedestrians, however, vehicles would legally have the right of way. The perception of a raised table at this location could give the false impression of priority to pedestrians. One motorist may wait for a pedestrian to cross whilst the other in the dual approach lane may not; and
 - j. Vehicles right turning into the side roads would be giving way to through traffic and may not be paying attention to users crossing on the table. In the event this occurs, a vehicle may be stopped in the bus lane waiting for a pedestrian to cross.
49. With relation to E27.6.1, E27.2 objectives (1), (2), (4),(5) and policy E27.3(20) of the AUP, the above highlights effects which have not been mitigated and measures which do not appropriately align with the relevant objectives and policies of the AUP.

Stormwater

50. There is a significant concern with the applicant's assessment of the proposed private stormwater infrastructure within the road corridor to pass flood flows through the site.
51. Auckland Transport has significant concerns with any private assets being proposed within the road corridor due to the maintenance and operational issues this would create, such as where there is no legal or recognised entity accepting financial responsibility for the life of the asset. Such infrastructure will require a Departure from Standard (DFS) application for third party consideration/approval from Auckland Transport. Where Auckland Transport, as road corridor asset owner, has not given support to a proposed device through a resource consent and Engineering Plan Approval process, the application is unlikely to be approved if any concerns exist.
52. The effect of any lane closures on Dominion Road would be significant, given the route's strategic importance on the network. If devices are not able to be effectively maintained, they will not operate correctly and effects on stormwater will not be mitigated. Any such structures should be relocated to within private property. Further, any proposed works affecting the transport network, as proposed, will require Engineering Plan Approval to be submitted to Council and approved prior to any of the works commencing. The process includes a review from Auckland Transport as asset owner / Road Controlling Authority where compliance with the Auckland Transport's Code of Practice will be assessed.
53. Discharging 1.6m³/s onto the road carriageway via structures within the kerb could have significant localised effects which have not been addressed. Kerb discharge onto the public network will require third party approval from Auckland Transport. Such reviews/approvals are assessed stringently and the applicant is required to provide evidence in considering alternative mitigation options with the application for review. Therefore, the concerns raised below need to be appropriately addressed for an informed review.
54. The following further information is required to avoid, remedy and/or address the effects, noting that some matters are not clear from the application material:

- a. The proposed method of managing the 1% Annual Exceedance Probability (AEP) overland flow is not compliant with the Code of Practice limits for stormwater depths and velocity within the road reserve. This is a heavily urbanised area with a number of potential flow path blockages. It is unclear if an assessment was carried out to determine whether this overland flow path is realistic or if it would actually flow through Grange Road;
- b. It is not clear how the proposed bubble up weirs will be constructed or will operate. It appears from the application material that they would spill up to 800l/s of flow onto the road corridor from each structure (1600l/s total). This is a significant flow rate, and it would need to be assessed to consider what the effect of this flow would be on the road, including the potential to create safety hazards for pedestrians/vehicles on Dominion Road which has not been assessed. The assessment needs to consider whether these exceed the safe limits for pedestrians and vehicles and how the weirs do not become blocked by parked vehicles;
- c. The applicant has stated that the proposed works will have only a minor impact on the wider flow path/flood plain, however, Auckland Transport considers that concentrating flows at the outlets could have localised effects on the road immediately adjacent, which may be much more significant;
- d. The assessment does not confirm the frequency and period of time at which these devices would operate; and
- e. It is also unclear if the design discharge rate is dependent on a certain soakage rate being achieved and what the effect would be of soakage rates during a 1% AEP event, including how devices would be maintained given they are constructed as private assets beneath the proposed buildings.

Additional Approvals Required

55. In the event consent is granted with Scenario B, Auckland Transport notes that the proposed changes will require Engineering Plan Approval from Auckland Council with review and input from Auckland Transport as Road Controlling Authority / asset owner. Any changes to the transport network, such as the removal of parking and provision of traffic control devices (Scenario B), will require approval from Auckland Transport under section 330 of the Local Government Act 1974 and must also meet the requirements set under Auckland Transport's Traffic Bylaw 2012. This bylaw, made pursuant to section 22AB of the Land Transport Act 1998, allows for Auckland Transport as the Road Controlling Authority to set requirements for parking and control of traffic on roads under the care, control, or management of Auckland Transport. The consent holder would be required to submit a Resolution report for approval by the Auckland Transport Traffic Control Committee to legalise proposed traffic changes and control devices. The process to obtain approval will require the consent holder to undertake consultation with the public and Auckland Transport. Where Auckland Transport, as asset owner, has not given support to a proposed traffic control device through a resource consent and Engineering Plan Approval process, (Scenario B in this instance) the resolution is unlikely to be approved if any concerns exist.
56. Approval must be sought from Auckland Transport's Traffic Control Committee prior to any installation or removal of legal road markings, as implementation of such measures will otherwise not be permitted. If approval is not given by Auckland Transport, the consent and associated conditions may require variation under section 127 of the Resource Management Act (RMA) and/or the consent will not be able to be implemented.
57. Approval will also be required from Auckland Transport as asset owner / Road Controlling Authority for any proposed stormwater infrastructure within the road reserve.
58. Where Auckland Transport, as asset owner, has not given support to a proposed traffic control device through a resource consent and Engineering Plan Approval process, (Scenario B in this instance) the resolution is unlikely to be approved if any concerns exist.
59. A vehicle crossing permit will also be required from Auckland Transport for all proposed vehicle crossings. The permit must be approved by Auckland Transport prior to the construction of any vehicle crossing.
60. With relation to the construction period, Auckland Transport approval is required for a Construction Management Plan and all applications for temporary use of the road reserve during construction must be submitted to Auckland Transport as a Corridor Access Request (a CAR).

61. Should the EPA decide to give consent to the application, Auckland Transport would request the applicant revise their proposal to appropriately address the matters listed under Schedule 7, the AUP, transport effects of the development and allow 'people movement' to be integrated in a safe and efficient manner. This could include, but not be limited to, reducing the ground floor area of the supermarket (GFA), exploration/feasibility of an appropriate signalised option for access, providing improved amenities and priorities for alternative modes of transport including increased public transport use and active modes.

Conclusion

62. The ITA has not appropriately considered modes other than vehicles.
63. The mitigation measures outlined in Scenario B are not safe for vulnerable users.
64. The effects caused by the development, namely the delays to public transport, the lack of cycle storage, the lack of pedestrian facilities, the effect on user safety at the intersections, the overly wide vehicle crossing widths and the stormwater management measures have not been avoided, remedied and/or mitigated.
65. Auckland Transport does not support the changes proposed to the local transport network.
66. Should the Panel have any queries on the content of this response, please contact Sarah Jaff as noted above.
67. Should the Panel be minded to grant resource consent, Auckland Transport would welcome the opportunity to comment on any conditions of consent.

Memorandum

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|-------------|---------------------------------|
| SUBJECT | ABC Dominion EPA ITA Review AFC |
| PREPARED BY | Jimin Hong, AFC |
| DATE | 31 May 2021 |

This memo summarises AFC’s review of the sections of the Integrated Transport Assessment (ITA) and ITA Appendices related to traffic modelling, submitted as part of the Fast-track application for the proposed Dominion Road mixed use development¹. These include:

- Appendix 16 - Integrated transport assessment report ([App_16_Integrated_Transport_Assessment.pdf](#))
- Appendix 16a -Integrated transport assessment report appendices ([App_16_Appendices_for_Transport_Assessment.pdf](#))

These documents were reviewed in conjunction with the traffic models that were provided by TPC via TPC’s OneDrive link as of 31 May 2021 (last updated by TPC on 23 Mar 2021).

“Criticality” column below represents the likely impact on the outcome of the ITA.

¹ <https://www.epa.govt.nz/fast-track-consenting/referred-projects/dominion-road-mixed-use-development/the-application/>

| # | Related Sections | AFC Comments | Criticality |
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| 1 | <p>Integrated Transport Assessment 6 Transport Modelling 7.1 Effect on the Road Network Close to the Site</p> <p>Appendix G – Traffic Model Results – With Development 5.0 Network Changes 6.0 Model Results</p> | <p>Model representation of development impacts – Scenario B</p> <p>Scenario B is the preferred option that is being recommended by the ITA. In AFC’s view, there are two main deficiencies with the current model for Scenario B, which prevent it from correctly reflecting the option’s operational performance. These need to be addressed to allow a complete assessment of the development impacts and a fair comparison between different options.</p> <p><u>Modelled Give-way Behaviours</u></p> <p>AFC ran and observed the simulations from the Paramics models provided by TPC. With the substantial increase in turning volumes both in and out of the side roads due to the development activities (for example, the right-turn movement from Dominion into Grange more than doubles in both peak periods), coupled with the priority-controlled dual lane approaches, the modelled give-way behaviours at the Dominion / Prospect and Dominion / Grange intersections in Scenario B become far more aggressive and dangerous than what would be considered practically plausible. In particular, vehicles are constantly making an extremely risky right-turn out of Prospect and Grange, often crashing into the oncoming right-turning Dominion Road vehicles when they should wait and give way.</p> <p>By allowing the conflicting turns to take place simultaneously, the current model is overestimating the intersection capacity available at the Dominion / Prospect and Dominion / Grange intersections, and effectively underestimating the delays and queues to the turning traffic.</p> <p>What is seen in the model simulation also highlights serious safety issues. With increased turning volumes, the priority-controlled intersections, which rely heavily on drivers’ gap selection and perception, fail to provide sufficient control to ensure safe traffic operation, increasing crash risks.</p> <p><u>Raised Tables</u></p> | Major |

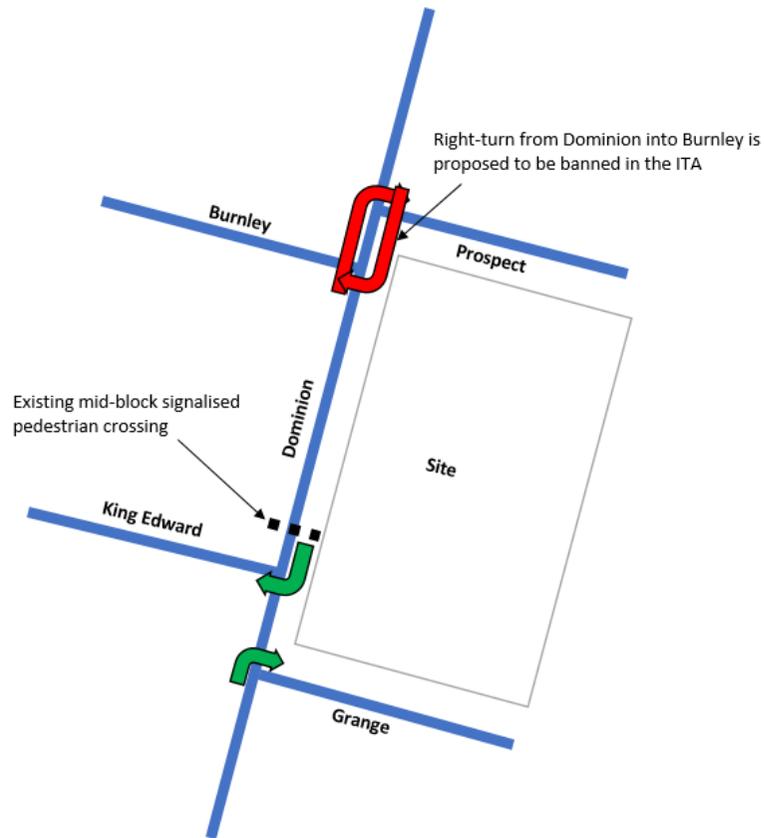
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| | <p>Raised tables are being proposed to be placed on Prospect and Grange approaches “to retain a high level of pedestrian amenity” and “to manage approaching vehicles” in Scenario B (Section 7.1 of the ITA), however, these have not been included in the current model.</p> <p>For raised tables to be effective at improving pedestrian amenity and safety (the very reason these are being proposed in the ITA), they must reduce vehicle speeds sufficiently, and this equates to additional delays to the vehicles. This would be particularly the case for the traffic turning into these side roads as they would now have to slow down at the point where they would start accelerating otherwise.</p> <p>These are usually reflected using reduced link end speed or non-zero link end delay in Paramics.</p> <p>The omission of the raised tables means that the model is potentially underestimating turning delays and queues for the traffic turning in and out of Prospect and Grange, and also the subsequent delays to Dominion Road through traffic through the modelled “let-in behaviour”.</p> <p>This was highlighted in AFC’s earlier review comments provided to the applicant (ABC_Dominion_Draft_ITA_Review_AFC_210331_v2.pdf). TPC subsequently responded that they “<i>consider that it is unnecessary to model the speed table near the intersection. Unlike the midblock speed table, drivers need to come to a full stop at the intersection when approaching Dominion Road from side roads. This involves a deceleration process that is similar to approaching a speed table. There is not expected to be any material difference in the modelling results.</i>”</p> <p>AFC do not consider that this response adequately addresses the issues raised, for the following reasons:</p> <ol style="list-style-type: none"> 1) If TPC believes that these raised tables would not make any material difference to the vehicle operation and hence the modelling results, it raises a question how effective these would then be as a measure for pedestrian amenity and safety. As mentioned above, raised tables provide protection to pedestrians by reducing vehicle speeds and this naturally results in additional delay to the vehicles. If the proposed raised tables are expected to have no influence on | |
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| | | <p>vehicle speeds as they approach the intersection, as TPC's above response suggests, these are not serving their purpose, and thereby not appropriately mitigating the adverse impacts of the increased crossing distance and pedestrian safety issues associated with the wider approaches.</p> <p>2) Contrary to TPC's response, vehicles turning out of Prospect and Grange approaches are in fact not coming to a full stop in the current models for all scenarios. This highlights clear inconsistencies between TPC's understanding of how traffic should operate on these two approaches and how these are actually represented in the models. If TPC believes that the side road traffic should come to a full stop at the intersections, then the models need to be revised to reflect this.</p> <p>3) As noted in the AFC's comment, the raised tables would have more impact on the traffic turning into Prospect and Grange from Dominion than those turning out, effectively creating a new downstream bottleneck.</p> <p>There is a concern that this can have a negative impact on the bus operation on the southbound kerbside bus lane during the weekday PM peak periods. The increase in the traffic volumes (due to the development activities) coupled with the new delay point right at the approach line (with some vehicles coming to a full stop for pedestrians; note the pedestrian volumes are also expected to increase significantly due to the development activities) would mean that there is a high chance for the vehicles to block the intersection while turning into Prospect and Grange from Dominion, subsequently impeding the bus movement.</p> <p>As per the road code, those that are travelling southbound on Dominion Road can drive on the bus lane to turn left once they are within 50m of the intersections. This would result in the left-turning vehicles queuing on the bus lane itself at the Dominion / Prospect and Dominion / Grange intersections, further exacerbating the problem.</p> <p>This occurred occasionally in a test scenario run by AFC. In the example below, vehicles turning left into Prospect from Dominion North approach queued on the</p> | |
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| | | <p>bus lane because of the raised table, forcing the bus to slow right down to 2kph. Note that the vehicles turning right into Prospect from Dominion South approach are also blocking the intersection because of this bottleneck.</p>  | |
| 2 | <p>Integrated Transport Assessment 6 Transport Modelling 7.1 Effect on the Road Network Close to the Site</p> <p>Appendix G – Traffic Model Results – With Development 5.0 Network Changes 6.0 Model Results</p> | <p>Model representation of development impacts – Scenario D</p> <p>Section 6.2.4 of the ITA describes Scenario D as follows: “the model shows large increases in delays and queue lengths on both Prospect Terrace and Grange Road, extending back to, past and within the site, to the point where the site would effectively be unable to function.”</p> <p>The Thursday PM peak model for Scenario D showed substantial queues on Prospect, which starts building up around 4:40pm and can extend past the residential access at</p> | |

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| | | <p>times. However, these queues dissipate by 5pm and remain short (~3-4 vehicles) for the remaining period.</p> <p>It is very clear from the model simulation that the signalisation at Dominion / Grange / Burnley does not only facilitate the turning movements in and out of Prospect, but also makes it easier for vehicles to turn in and out of Grange as it breaks up the continuous Dominion Road southbound traffic and provides longer gaps. The give-way behaviours at Dominion / Grange become significantly safer than in Scenario B. Queues on Grange remain short at ~3 vehicles, which is very much comparable to Scenario B.</p> <p>AFC notes that the same phase times were used at the new signal throughout each peak period. The phase times can be adjusted for each 15-minute period to match the development demand profile better (this is what the SCATS would do in reality), resulting in lower delays and shorter queue lengths on Prospect. A lower cycle time (the current model uses 120 seconds) would also have helped reduce overall delays and queue lengths.</p> <p>It is AFC's view that Scenario D presents a much more attractive option than Scenario B from both safety and operational perspectives. Apart from the relatively short-lived queuing and the subsequent delays on Prospect its operational performance is comparable to Scenario B, while providing the much needed control and improvement on safety. It is also likely that the queuing and delays can be reduced with further refinement to the signal operation.</p> | |
| 3 | <p>Integrated Transport Assessment 6 Transport Modelling</p> <p>Appendix G – Traffic Model Results – With Development 5.0 Network Changes 6.0 Model Results</p> | <p>Lack of Optioneering</p> <p>The true value of having a micro-simulation model built for an ITA is to explore different mitigation options and ultimately develop a solution that is optimal for the given development.</p> <p>AFC is concerned by the lack of evidence of optioneering presented by the ITA. It appears that TPC's option development process gave no consideration to the critical transport issues at the site and the surrounding transport network.</p> <p>Throughout the pre-app process, AT has consistently highlighted</p> | Major |

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| | | <ul style="list-style-type: none"> - That priority-controlled dual-lane approach would be supported on neither Prospect nor Grange because of safety issues (with the first such advice given at the first pre-app meeting held on 16 September 2021) - AT's Vision Zero and importance of safety for VRUs (vulnerable road users) along Dominion Road - The importance of the existing and future role of Dominion Road as the RTN (Rapid Transport Network) PT (public transport) corridor. <p>Despite this, priority-controlled dual-lane approaches are being proposed on both Prospect and Grange in the preferred option, Scenario B, in the ITA.</p> <p>Out of the four development options considered, Scenario D (Signalisation at Dominion / Prospect / Burnley) is the only option that provides a degree of mitigation measures for widened approaches.</p> <p>However, even this scenario was not fully developed into a practically viable option. As previously noted in Item 2, the queuing and delays on Prospect could have been better managed through signal optimisation. Also, given the importance of maintaining the high bus service quality, the expectation is that any signalisation on Dominion Road would include bus priority measures to minimise impacts on buses. The micro-simulation model provides the tool to test different options of bus priorities, but there is no evidence that these were considered or tested in this assessment.</p> <p>The way Prospect and Burnley stagger each other results in overlapping right-turn movements from Dominion Road (refer to the diagram below). This complicates signal phasing as the two major right-turn movements cannot be run concurrently in a single phase. TPC proposes to resolve this by banning the right-turn movement from Dominion into Burnley, with the existing movements diverted to Dominion - Bellwood, however, this would lead to problems in the other parts of the network, which are not addressed in the ITA.</p> | |
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A logical alternative would be a signalised intersection at Dominion / Grange / King Edward as the stagger between Grange and King Edward does not result in overlapping right turns (refer to the diagram above). It will allow the two major right-turn movements to run concurrently in a normal diamond phase, making phasing much more efficient without necessitating a banned turn. Also, the pedestrian crossing across the Dominion North approach in this configuration (which would replace the existing signalised mid-block pedestrian crossing) would align much better with the main pedestrian entrance on the Dominion Road frontage and the subsequent pedestrian desire lines than what would

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| | | be provided with the signalised intersection at Dominion / Prospect / Burnley. This option was not assessed in the ITA. | |
| 4 | Integrated Transport Assessment 7.1 Effect on the Road Network Close to the Site | <p>Interpretation of Model Results and Operation – Comparison of Options</p> <p>As discussed in Item 1 above, the current model for Scenario B underestimates turning delays and queues on Prospect and Grange approaches, and potentially the Dominion Road travel times. Relative performance and impacts of the options will change once the model is corrected.</p> <p>Notwithstanding the model performances, based on the model simulations, it is evident that with the increased turning traffic volumes due to the development activities, the priority-controlled intersections will no longer allow safe give-way operations at the Dominion / Prospect and Dominion / Grange intersections. This means that the development traffic generation will have to be reduced significantly to the level that can be adequately accommodated by the existing intersections (i.e. priority-controlled, with a single approach lane), or the intersections become controlled (i.e. a traffic signal).</p> | Major |
| 5 | Integrated Transport Assessment 7.2 Effect on the Wider Network | <p>Interpretation of Model Results and Operation – Impacts on Local Roads</p> <p>For the Thursday PM peak when the Dominion southbound is already operating at its capacity in the Existing scenario, the Dominion southbound travel times within the model extent becomes a less meaningful metric when it comes to assessing the impact of any changes. The Dominion southbound travel times are counterintuitively shown to be reduced in all development scenarios with respect to the “Existing + Consented” scenario. In fact, this is because it is so congested that there is a consistent queue of some 300-400 unreleased vehicles that cannot enter the network at the northern end of Dominion Road. Unreleased vehicles are the key metric when assessing the wider network impact as they would divert to elsewhere, increasing the risk of rat-running on local residential roads.</p> <p>The substantial number of unreleased vehicles in the development option scenarios highlights the increased risk of rat-running. The Paramics model is a corridor model (as opposed to a network model) so is not capable of reallocating the rat-runs on to the local residential roads from Dominion Road, hence underestimating the impacts on the local</p> | Major |

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| | | residential roads when there are unreleased vehicles. This is not adequately addressed in the ITA. | |
| 6 | Integrated Transport Assessment 7.2 Effect on the Wider Network | <p>Interpretation of Model Results and Operation – General Effects</p> <p>Section 7.2 of the ITA states that “the numbers of new vehicle trips on the road network that have been predicted through the PARAMICS model are considered conservatively high predictions”. The correct approach should have been to model the most likely trip generation scenario then use the modelling results (including the unreleased vehicles statistics) holistically to assess the impacts and inform the mitigations measures, instead of modelling a “highly conservative” trip generation scenario then choosing to disregard the impacts portrayed by the model, which seems to defeat the purpose of modelling.</p> <p>For example, it would have been plausible to apply a lot higher passer-by rates and active mode share for this development given its location (provided appropriate amenities were being proposed to promote PT and active modes trips).</p> <p>As the ITA recognises, the site will be surrounded by increasing number of developments. The key difference for this development from other developments in the area is that it includes a full-sized supermarket with no provision for PT or active modes, resulting in a highly car-reliant destination. The quantum is also noticeable from the traffic generations considered in the assessment. The proposed development is adding ~1500 extra trips over 3 hours, whereas six other Consented developments would generate a combined total of ~350 trips over 3 hours.</p> <p>Section 7.2 of the ITA also states that new supermarket will reduce the distances that customers are travelling and also the vehicle activities around other surrounding supermarkets. This is only true if the scale of the new supermarket were kept small to keep the trade catchment to immediately local neighbourhoods. Keeping it local would also help promote active modes, further reducing traffic generation. Conversely, a full-sized supermarket with new product offerings will attract traffic from further afield.</p> | Major |

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| 7 | Integrated Transport Assessment 7.4 Effect on the Public Transport Network Operation and Use | <p>Interpretation of Model Results and Operation – Dummy Signal</p> <p>Section 7.4 of the ITA states the following regarding the Saturday MD peak Scenario B model: “From observing model simulations, the added travel time appears to be because of delays experienced at the dummy signals within the model for the Valley Road / Dominion Road intersection to the north. The dummy signals were developed to calibrate the travel times through the model extent and not as a true reflection of the operation of the Valley Road signalised Intersection. This assessment anticipates that the Valley Road signals will operate more efficiently than the dummy simulation within the model, and the added journey times on a Saturday will be less than the model indicates.” (The same statement is also repeated in Section 7.5).</p> <p>AFC considers the above statement categorically incorrect. The said northern dummy signal has been added to the “Existing” scenario as part of the model calibration (which the above correctly states), to generate the correct level of congestion along Dominion Road northbound. This is only done by correctly reflecting the operation of the Valley Road intersection and the resulting bottleneck, contrary to the above. This provided the basis for the travel time validation as detailed in Appendix F – Traffic Model Validation Report.</p> <p>AFC checked the traffic operation at the northern dummy signal in the Saturday MD peak Scenario B model and did not find anything untoward. The queues and delays are the products of the additional traffic on Dominion Road northbound that is being generated by the proposed development activities.</p> | Major |
| 8 | Integrated Transport Assessment 7.5 Effects on General Traffic Operation on Dominion Road | <p>Interpretation of Model Results and Operation – Unreleased Vehicles</p> <p>AFC do not agree with TPC’s interpretation of unreleased vehicles and their conclusion that the effects on the network could be closer to neutral.</p> <p>The “Existing + Consented” scenario model (Base) does result in some unreleased vehicles on Dominion Road, however, in this scenario all of the additional development trips (~350 over 3 hours) are along Dominion Road, which are well catered for and highly likely to be absorbed by the RTN bus services. These trips do not need to use the side roads. Hence for the “Existing + Consented” scenario, it is highly likely that the unreleased</p> | Major |

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| | | <p>vehicles on Dominion Road would be negligible and the net effects to the network would be neutral.</p> <p>However, this is not the case for the “Existing + Consented + Development” scenarios. Of the 1500 total additional trips that it is generating over each 3-hour peak period, 470 are not along Dominion Road and will have to use the side roads to access the site. So even if a higher passer-bys and mode switch were to occur (note, these will only affect the trips along Dominion Road), there will still be impacts on the side roads.</p> <p>Also missing from the ITA is that the full extent of impacts on Dominion southbound during Thursday PM peak is being masked by the unreleased vehicles. Given that the proposed development is adding more vehicles on Dominion southbound than Dominion northbound, and that the Dominion southbound was already operating at capacity and busier than Dominion northbound, impacts on Dominion southbound would be far greater than those on Dominion northbound, and also what is indicated by the ITA.</p> | |
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| Written by | 31/05/20 | Jimin Hong | JH |
| Reviewed by | | | |

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