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TDG Ref: 8823.015
 03 October 2014

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Dear Bernie,

Response to Auckland Council Comments on Three Kings Renewal Private Plan Change 15H1

We have prepared the following response to comments provided by Auckland Council with regard to the Three Kings Renewal Private Plan Change, option 15H1. Our comments respond to the traffic and transportation related matters raised by the Council. For ease of reference we have copied the relevant Council comment along-side our response in the following table.

1. Council Comments and TDG Response

Reference	Council Comment	TDG Response
1.6 (15H1)	Concept Plan 'Secondary access' points link to primary road network. Please confirm how the hierarchy of these points and roads is unclear.	The proposal now provides for two primary accesses, one being Grahame Breed Drive and the second Bush Road. This is shown on the concept plan.
1.7 (15H1)	Concept Plan Walkway/Cycleway over existing western open space is shown as a meandering line – unsure how this would provide direct accessible connections to the residential areas from the west.	We assume this refers to the walkway up the maunga. Paths leading up steep gradients are zig-zag in order to achieve the necessary maximum gradient for walking and cycling.
21	TDG Report: Further information to address parking demand for sports fields and proposed loss of car parking from upper car park.	Section 3.3 of the TDG report outlines how the 139 spaces within the upper car park will be re-provided.
32	More information regarding wheel chair access (and the like) into the site for plan change H1. The only mention is a public lift up to the Plaza area within an apartment building (i.e. please address universal access).	The maximum gradient of the footpaths along Grahame Breed Drive will be 6% which is below the maximum gradient for wheelchair users. It is expected however that wheelchair users will find it easier to use the public lifts or drive when entering and exiting the lower level of the development.



<p>6.11 (15H1)</p>	<p>Grahame Breed drive is shown as being the primary access with a signalised intersection. Please confirm why this has been chosen as the primary access over the existing entrance further north along Eden Eden Road, especially given this entrance is closer to more of the dwellings?</p>	<p>The signalisation of Grahame Breed Drive and Mt Eden Road will provide an important formal pedestrian crossing facility on a strong desire line between the development and Three Kings School. This is considered a significant benefit and would not be achieved if the northern access was signalised. It is incorrect to assume that the northern entrance is closer to more of the dwellings as there are a high number of apartments within buildings A01 to A05, significantly more dwellings than within the terrace housing component of the lower development.</p>
<p>4.1 (15H1 & 15H2)</p>	<p>The traffic modelling outputs show existing vehicle turning movements. Please confirm if these are vehicles counted during a survey or are actual outputs from the model.</p>	<p>The traffic volume diagrams in Appendix D of the TDG report show the existing turning volumes as derived from an on-site survey. The traffic modelling outputs in Appendix E show queue lengths and Level of Service.</p>
<p>4.2 (15H1 & 15H2)</p>	<p>The level of accuracy of the base case model, that is, how well the existing vehicle movements are replicated, should be set out in the ITA. Please provide a corresponding level of confidence in the future year models.</p>	<p>The base mode has been calibrated against queue lengths recorded during the on-site survey. We are confident the future year models are robust.</p>
<p>4.3 (15H1 & 15H2)</p>	<p>Please clarify the vehicle trip generation numbers and distribution of traffic. These figures should relate to the number of residences proposed. The methodology/process could be set out in an appendix to provide a clearer description of how the final generation and distribution figures (traffic movement volumes) were derived.</p>	<p>The predicted vehicle trip generation and distribution is described in chapter 4 of the TDG report. Trip generation rates for apartments and for terrace housing were derived from surveys of existing developments. These rates were applied to the number of residences proposed. The trip distribution is set out in section 4.3 of the TDG report and is based on distribution from existing developments, Census journey to work data and traffic volumes on Mt Eden Road. A separate technical note can be provided if necessary.</p>
<p>69</p>	<p>The design of the 'minor' road accesses to MER would need to be reinforced to ensure these are not used as through routes. It would be helpful to have some comment to this effect within the Concept Plan.</p>	<p>The Bush Road is acknowledged as one of the primary access to the block. Other minor accesses to Mt Eden Road are mostly driveways leading into the apartment buildings and are not through routes.</p>
<p>70</p>	<p>Cycle lanes are proposed on only part of the local road network. There should be a complete circulating cycle facility that would connect to MER at both the northern and southern ends and also to MAR. That is, cycle lanes should be on GBD, the Avenue, the western-most local road, Bush Road and the final connection to MER. There should also be a connection to MAR.</p>	<p>The development will provide a combination of on road cycle lanes and dedicated off road paths to ensure there is full coverage for cycling along all major desire lines.</p>



72	The proportion of trips made by motorised vehicles over a short distance (0.5km to 1.0km) is very high. The proposed development should make walking and cycling very appealing so that residents would be attracted to making these trips by walking or cycling.	The location of the site lends itself to encouraging a high proportion of walk and cycle trips with the Three Kings Shopping Centre, Three Kings School and high frequency bus routes along Mt Eden Road all within a short walk/cycle of the site. The design of the development will encourage walking and cycling through high quality facilities for pedestrians and cyclists via a network of on road and off road paths along key desire lines.
73	Travel demand management should be addressed. While it is acknowledged that parking is being provided to the maximum levels proposed by the Proposed Auckland Unitary Plan (PAUP), there should be tangible methodologies, facilities or programmes that would ensure the minimisation of travel by private vehicle. This would then be consistent with the objectives of the proposed development as set out in the plan change document.	Implementing a sustainable travel demand management programme such as a travel plan in a residential development is difficult and we do not know of any local examples where this has been achieved successfully. However we would be happy to work with Auckland Council to identify any soft measures that could potentially be put in place. This may be more achievable within the apartment buildings than for the terrace housing component of the development. Appropriate assessment criteria have been added into the transport section of the requested private plan change.
74	The provision of two road accesses (the northern access and via GBD) and the direct accesses of the apartment buildings on MER would distribute traffic onto the local road network in a manner that would better address any potential congestion issues. The plan change document and ITA refer to three walkway connections from the western side of the site but there seems to be only two. This needs to be clearly annotated.	We agree that Option 15H1 with two vehicle access routes from the lower level of the development will distribute traffic in a way than leads to lower peak traffic volumes on any one internal road and this is the favourable option from a traffic engineering perspective. Two primary accesses are now provided. There are two proposed pedestrian and cycle routes to Big King and two additional routes to Fyvie Ave and Smallfield Ave from the western side of the site.
75	It is not clear if AT has accepted the rationale provided (with regard to the AT comments) by the Applicant or if AT has reviewed the ITA.	AT have been sent a copy of the ITA report and the development team will work closely with AT to address any comments on the application they may have.
76	The traffic generation rates and distribution of traffic are not clearly set out. The methodology/process could be set out in an appendix to provide a clearer description of how the final figures (traffic movement volumes) were derived.	As per number 4.3 the traffic generation and distribution is described in chapter 4 of the TDG report.
66	Signalization of the intersection of Mt Eden Road (MER) with Graeme Breed Drive (GBD): It is not clear what signal phasing was used in the modelling. Consideration of providing a type of phasing that will provide a better facility for the large number of children and parents that would be using this intersection to cross MER.	We agree. The signal phasing can be addressed during the detailed design phase and high priority given to pedestrians. A barnsdance type of facility could be considered as long as traffic queues can also be effectively managed.



67	Proposed access via Plaza Drive onto Mt Albert Road (MAR): While this has been modelled (and shown to not be a major issue in terms of delays and queues), there are significant traffic operational issues (proximity of the pedestrian refuge immediately to the west and the intersection at Dornwell/Hayr further on) that may need to be addressed.	We disagree. The mentioned pedestrian refuge island is not particularly close to the intersection and on the wrong side to be particularly problematic, i.e. it will not prevent right turn movements. The intersection of Dornwell/Hayr is 100m from the intersection, has priority on Mt Albert Road (i.e. no queues toward Mt Eden) and will have no influence.
68	The removal of the car park on the northern side of GBD has not been adequately addressed in terms of replacement on-street parking. This is an important aspect because the sports fields are well used. It would not be feasible if on-street car parking related to sports activities spill over to the local roads within the proposed development.	As per number 21, the re-provision of the 139 car parking spaces to the north of Grahame Breed Drive is described in section 3.3 of the TDG report.

We trust that the response provided in the table above adequately responds to the Council comments at this stage. We would be happy to provide any clarification or further information as necessary going forward with the Plan Change process.

Yours faithfully
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