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17 April 2020

Drury South Limited PO Box 105-558 Auckland City Auckland 1143 New Zealand

Dear Sean,

## Drury Crossing Private Plan Change - Transport Response to Clause 23 Request

Beca Limited has prepared the following response to address the Clause 23 information requests from Auckland Council in relation to the proposed Drury Crossing private plan change. The transport items raised by Auckland Council in its request dated 17 February 2020 are addressed in the table included in Attachment 1 to this letter.

We trust the above is of assistance. Please do not hesitate to contact me, if there are any queries.

Yours sincerely,

Joe Phillips

Principal - Transportation

on behalf of

Beca Limited
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Enc. Attachment A

Attachment A - Beca Response Table

Attachment 1 – Drury South Private Plan Change – Transport Reponses to Council Clause 23 Request

Council Matter		Applicant Response		
T1	Please explain whether a restricted discretionary activity status triggered when trade retail exceeds 5,500m² GFA across subprecincts C and A has been considered to enable an assessment of effects on the safe and efficient operation of the transport network.	It is proposed that the Precinct provisions will be amended to apply a restricted discretionary activity status to Trade Suppliers of 11,000m <sup>2</sup> GFA across Sub-precincts A and C.  The Beca Transport Assessment Report (TAR) has already assessed the effects associated with up to 5,500m <sup>2</sup> GFA of Trade Suppliers within Sub-precinct C. Having reviewed this activity further, it is noted that the typical GFA for Trade Suppliers can range from around 5,500 up to around 11,000m <sup>2</sup> GFA. As such, to enable some flexibility for the Trade Suppliers across Sub-precincts A and C (i.e. a larger single or two smaller sites), a restricted discretionary activity threshold at 11,000m <sup>2</sup> GFA is proposed.  An additional allowance for a further 5,500m <sup>2</sup> GFA of Trade Supplier activity in Sub-precinct A and C has been considered, above the 5,500m <sup>2</sup> already assumed and		
		assessed. This would equate to an additional 165 vehicle movements per hour <sup>1</sup> . Noting that the typical peak traffic period for Trade Suppliers is on weekends and the weekday morning peak period vehicle movements are much lower. This activity would replace 5,500m <sup>2</sup> GFA of an activity already assessed in Sub-precinct A or C, depending on its location. In Sub-precinct A, this would replace Light Industrial activity, which would equate to around 30 vehicle movements per hour <sup>2</sup> .  The net additional movements for Trade Supplier activities is therefore around 135 vehicle movements per hour in the weekday evening peak hour. This compares with the total of around 2,000 vehicle movements in the weekday evening peak hour across Sub-precinct C and the re-zoned 20 hectares of Sub-precinct A. Moreover, in the context of the overall Industrial Precinct traffic generation in the weekday		
		evening peak hour (3,800-3,900 vehicle movements), the additional 5,500m <sup>2</sup> GFA of Trade Suppliers is around a 3% increase in vehicle movements.		

<sup>&</sup>lt;sup>1</sup> NZ Trips and Parking Database and TDG surveys for Bunnings stores identify weekday evening peak hour trips rates up to 3 vehicle movements per 100m<sup>2</sup> GFA.

<sup>&</sup>lt;sup>2</sup> Based on 0.55 vehicle movements per 100m<sup>2</sup> GFA during the weekday evening peak hour in Beca TAR.

		This is considered to be a relatively small change in vehicle movements spread across the Precinct and wider transport network. It is therefore considered that allowing the potential for Trade Suppliers up to 11,000m² GFA within Sub-precincts A and C, as permitted activities, will still be manageable in terms of the safe and efficient operation of the network. On the basis of the above, it is proposed that the Trade Suppliers threshold for a restricted discretionary activity status apply at 11,000m² GFA in Sub-Precincts A and C.  The revised Precinct provisions, including the associated matters of discretion / assessment criteria, are attached to this response, which it is considered are appropriately limited to the relevant transport matters.
T2	Please explain and justify the proposed exemption from Standard E27.6.1 Trip Generation from I140.6 Standards. Please confirm how potential transport effects from land-use activities in sub-precinct C would be mitigated in the instance that subdivision consent applications are not accompanied with a land-use consent, or where the transport effects fall outside of the scope of I410.8.2(1)(f).	Within Standard E27.6.1(2), it is stated that Standard E27.6.1 does not apply where:  "(b) development is being undertaken in accordance with a consent or provisions approved on the basis of an Integrated Transport Assessment, where the land use and associated trip generation and transport effects are the same or similar in character, intensity and scale to those identified in the previous assessment;"  "(d) there are requirements to assess transport, traffic or trip-generation effects for the activity in the applicable zone rules or precinct rules for any controlled or restricted discretionary activity land use."  These rules mean that development in the Precinct would not need to be subject to the trip generation rule and the intent of the proposed exclusion is to make this clear. In our view, this is a clarification rather than a substantive amendment for the Plan Change that would impact the transport effects / outcomes considered, as discussed below.

The TAR has considered the trip generation effects of the proposed Precinct and this has been reflected in the proposed Precinct provisions. This includes providing for some retail and office activity as a restricted discretionary activity beyond identified thresholds. As identified above, this now includes providing for Trade Suppliers as a restricted discretionary activity beyond 11,000m² GFA. The TAR has also demonstrated that the overall trip generation effects of the Precinct will be similar to the activities already enabled through the current Precinct provisions and that the previously identified transportation network development requirements remain appropriate.

The TAR has addressed and considered the changing environment in the vicinity of the Drury South Industrial Precinct, including the Structure Plan prepared by the Council and the work currently being undertaken by the Supporting Growth Alliance (SGA) in relation to the associated transport infrastructure. This has included consideration of the potential effects of the Mill Road Corridor and the opportunities for other future connections, such as the northern end of Ramarama Road remaining open to provide for local connection with the Structure Plan to the north.

The Drury South Industrial Precinct is already live zoned and the trip generation effects remain similar with the proposed activities. As such, it is considered that the ongoing investigations by the SGA will be able to appropriately consider and address any transport outcomes in the adjacent areas associated with the future 'live zoning' of those areas. Noting that the TAR has also identified that, whilst not reliant on that future infrastructure (such as the Mill Road Corridor), the Precinct is able to develop in a manner that can respond and benefit from that future transport infrastructure.

Within the Industrial Precinct any subdivision or any development which precedes subdivision is a restricted discretionary activity provided it complies with I410.6.3, as identified in Table I410.4.1. For restricted discretionary activities, the assessment matters previously included the design and layout, transportation network development requirements, as well as vehicle access to and from the Maketu Road.

		In addition, the proposed Precinct provisions include matters relating to the effects of retail and offices activities exceeding identified GFA thresholds, as well as now including Trade Suppliers. These GFA thresholds relate to those activities that have potentially to be high trip generating activities, and would also apply to later land use consents, so enable the transport effects of those activities to be effectively managed. By comparison, other activities (such as residential activities) will have less impact, noting also that the projections of those activities assessed in the Transport Assessment report are already considered to be at the upper end of the quantum of activity that would eventuate. As such, it is considered that the provisions appropriately consider and will address the effects of the Precinct.  On this basis, it is considered that assessment of future land-use consents are appropriately addressed through the combination of the proposed Precinct provisions relating to restricted discretionary activities, including:  • the thresholds for certain retail and office activities, and now Trade Suppliers; and  • the matters relating to the transport network design and layout, Maketu Road access and the transport network development requirements.  In relation to Standard E27.6.1, it is therefore considered that development in the Precinct would not need to be subject to the trip generation rule and the intent of the proposed exclusion is to make this clear, noting effects will be addressed by other Precinct provisions. Moreover, the SGA will be able to appropriately consider and address any transport outcomes in the adjacent areas associated with the future 'live zoning' of those areas and this 'live zoned' Precinct.
ТЗ	Please consider whether the Retail and Office GFA caps for sub-precinct C would be more clearly identified if located in Table I410.4.4 rather than in Standard I410.6.1.	Refer to the planning RFI response.

T4	Please explain whether a walking and cycling link between sub-precinct C and the Drury South Residential Precinct on I140.10.2 Drury South Industrial and Mixed Use: Precinct Plan 1 and Precinct Plan 2 has been considered.	The walking and cycling connection between the Residential and Industrial Precincts, as illustrated on the Residential Precinct Plans 1 and 2, is currently being enabled by the earthworks currently being undertaken at Drury South to establish the stormwater management areas between the Precincts. This connection is now shown on a revised Industrial and Mixed Use Precinct Plan 1 included in the planning RFI response.  The Industrial and Mixed Use Precinct Plan 2 does not illustrate such connections. This is unnecessary, as Precinct Plan 2 shows only the transport network requirements in I4.10.8.2(f) of the Industrial and Mixed Use Precinct.
T5	Please confirm the expected change in estimated number of jobs that will result within Drury South from the PPC.	Information has been provided by Market Economics in relation to the expected number of jobs within the proposed Industrial and Mixed Use Precinct, which has been used to inform its economic assessment.  This indicates that by around 2043, the proposed Precinct is expected to accommodate at the lower end around 5,000 jobs and up to 6,400 jobs. This range is comparable and potentially exceeds the around 5,500 jobs identified by Council, which are assumed in the regional traffic models.  It is noted that the recent Government announcement in relation to the New Zealand Upgrade Programme (NZUP) for Transport includes committed transport infrastructure in the Drury area, which will likely accelerate the growth of this area from that previously planned, supporting employment growth.  Notwithstanding that 5,500 or more jobs are planned to be delivered in Drury South, it is noted that there are now planned to be some 2,000 or more jobs (around 1,800 additional jobs in the wider Drury area at Drury East). According to recent media releases, we understand that the developers in Drury East may be seeking to provide a greater number of jobs than stated above.

Please provide assessment of the benefits and disbenefits of the proposed intersection between Link Road, Spine Road, and Avenue Road. This should include a discussion about safety and efficiency of operation.

The recent Government announcement in relation to the NZUP for Transport includes the southern section of the Mill Road Corridor and the associated interchange with State Highway 1. Discussions between the applicant and the SGA are ongoing in relation to the alignment of this corridor. However, the greater certainty on the delivery of this corridor means that the previously identified Link Road and Avenue Road intersection with the Maketu Road is now much less likely to eventuate.

It was for this reason, albeit the status of the Mill Road Corridor was more uncertain at the time of preparing the TAR, that the proposed Precinct provisions identified the need for flexibility in the alignment of the Avenue Road (and other Precinct corridors).

As identified by Council, the TAR also identified that (with the Mill Road Corridor) a more appropriate outcome would be achieved by relocating the Avenue Road connection with the Spine Road further to the south.

It is acknowledged that the connection of the Avenue Road with the Spine Road and Link Road intersection, as illustrated on the proposed Precinct Plans 1 and 2 will result in an unconventional alignment for the Avenue Road approach. However, there is the potential that, what is essentially an indicative connection, can be further reviewed and addressed through subsequent design phases, should this need to be progressed.

The design options could include considering the associated alignment of the Link Road to the north. Alternatively, the alignment of the Avenue Road connection could be relocated further to the south of the Link Road, similar to the arrangement shown in Figure 4-2 of the TAR for the 'with Mill Road Corridor' situation. This could consider a combined intersection with the northern east-west road to the east of the Spine Road, or a separate intersection. For this reason, the proposed Precinct provisions enabled some flexibility in the alignment of the Avenue Road and other roads.

		As such, it is considered that the alignment and connection for the northern end of the Avenue Road with the Spine Road can be satisfactorily addressed through later subdivision consents and associated design development. Notwithstanding that the Government's NZUP for Transport has confirmed the Mill Road Corridor in this area, which would necessitate a relocation of this connection for the Avenue Road.
Т7	Please explain why the road element dimensions included in Plan Change Design Guidelines: Design Element 3 – Roads and accessways are not consistent with Auckland Transport design standards, and comment on whether this may be problematic for consenting.	Refer to the planning RFI response.
Т8	Please explain why the Typical Road Cross Sections included in Plan Change Design Guidelines: Attachment 1 are not consistent with Auckland Transport design standards and do not reflect the proposed land use zoning for sub-precinct C. Please comment on whether this may be problematic for future consenting.	Refer to the planning RFI response.
Т9	Please add a "Base case" column to Table 4-1 and 4-2 of the TAR, so PPC volumes can be compared with potential volumes from the existing precinct, as assessed in the Housing Infrastructure business case assessment.	An updated Table 4-1 is provided in <b>Appendix A</b> below.  It is noted that a comparison with earlier assessments for the Housing Infrastructure business case is not helpful, as only a very limited number of key links were reported on and that previous modelling was based on different modelling assumptions. In particular, the 'With Mill Road Corridor' scenario was based on a much longer-term 2046 future year, so included a further 20-year growth period and other associated transport infrastructure.

		That modelling also utilised the Scenario I9 land use from the legacy Auckland Regional Traffic (ART 3.2) model. However, the proposed Plan Change models utilised the Scenario I11 land use from the Macro Strategic Model.  As such, the revised Table 4-1 instead provides comparison with 'Base case' traffic volumes obtained from the Beca Transport Assessment report (16 July 2018) for the initial industrial subdivision consent. Again a direct comparison needs to consider:  • The 'Without Mill Road Corridor' scenario from the subdivision consent modelling only included 65 hectares of industrial land and 300 residential dwellings in the Residential Precinct, not full build-out  • The 'With Mill Road Corridor' scenario from the subdivision consent modelling has full build-out, but was based on a 2036 future year, not 2026.  It is therefore important the results for the 'Base Case' as presented in the revised Table 4-1, from the initial subdivision consent reporting, are considered within this context. It is also noted that traffic volumes on the Spine Road, Road 5A, Road 4 and the Road 2 are affected by the additional inclusion of the Northern East-West Road in the proposed Plan Change models. The traffic volumes have been provided, where available in the 'Base case' modelling, with other locations marked 'n/a'.  For similar same reasons, it is not possible to provide a revised Table 4-2. The earlier
		For similar same reasons, it is not possible to provide a revised Table 4-2. The earlier assessments did not include a 'With Fitzgerald Road Connection' scenario, as reported in Table 4-2. So, there is no 'Base Case' traffic volumes for this scenario. The 'Without Fitzgerald Road Connection' volumes in Table 4-2 simply replicate those already in the revised Table 4-1.
T10	TAR Table 4-5 does not show any difference in performance between the PM peak scenarios. Please check whether the "with" and "without" pedestrian phase scenario results are correct.	It is confirmed that the with and without pedestrian phase results are correctly recorded from the traffic modelling results included in Appendix D.

## Appendix A

Revised Transport Assessment Table 4-1

## Predicted Daily Traffic Volumes – With Proposed Plan Change versus the 'Base Case' scenario<sup>1</sup>

Road	Without Mill Road Corridor		With Mill Road Corridor	
	2026 Plan Change	2026 Base Case <sup>2</sup>	2026 Plan Change	2036 Base Case <sup>3</sup>
Spine Road (Road 1) – South of Intersection 2	9,100	3,600	6,300	6,300
Spine Road (Road 1A) – North of Intersection 2	3,500	1,200	4,000	7,900
Spine Road (Road 1B) – North of Intersection 1	16,200	n/a	20,200	17,200
New Quarry Access Road (Road 2W)  – East of Intersection 2	4,900	3,500	3,700	6,300
Avenue Road (Road 3) – West of Intersection 1	4,600	n/a	5,500	1,800
Avenue Road (Road 3) – West of Intersection 2	3,300	n/a	2,500	2,800
Road 4 – North End	4,300	n/a	5,900	n/a
Road 4 – South End	4,100	5,100	5,000	2,600
Road 5A – East of Intersection 1	3,400	3,300	4,800	8,100
Northern East-West Road – East of Spine Road	6,800	n/a	7,600	n/a
Link Road (Mill Road Corridor) – North of Spine Road	9,000	n/a	14,000	25,000
Spine Road / Quarry Rd crossing SH1	9,400	3,300	4,400	3,700

## **Notes**

<sup>&</sup>lt;sup>1</sup> 'Base case' traffic volumes are taken from Beca Transport Assessment report (16 July 2018) for the initial Industrial Precinct subdivision.

<sup>&</sup>lt;sup>2</sup> 'Without Mill Road Corridor' scenario in 'Base case' results include 65 hectares of industrial land and 300 residential dwellings in the Residential Precinct, not full build-out of the Precincts as in the proposed Plan Change models.

<sup>&</sup>lt;sup>3</sup> 'With Mill Road Corridor' scenario in 'Base case' results are based on 2036 background land use growth, not 2026 as in the proposed Plan Change models.