

30 September 2016

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Attention: Nathan Cairney

RE: Proposed Warehouse and Logistics Hub, 5 and 9 Culverston Road, Minto (SSD 7500)  
Response to Submissions

Dear Nathan,

Ason Group has been commissioned by Tactical Group to provide traffic, transport and parking advice in support of a State Significant Development Application (SSDA) to the NSW Department of Planning & Environment (DPE) for a proposed warehouse and logistics hub (the Proposal). The subject site for the Proposal is located at 5 and 9 Culverston Road, Minto (the Site). As part of the SSDA submission, a Traffic Impact Assessment (TIA) report titled *Proposed Warehouse Development 5 & 9 Culverston Road, Minto* dated 27 April 2016 (ref: 0191r01v2) was prepared by Ason Group (the 2016 TIA report).

The exhibition of the Environmental Impact Statement for the above project ended on 1 August 2016 and subsequently a letter was received from DPE requesting a Response to Submissions (RTS) report be prepared that responded to issues raised in the submissions as well as specific issues raised by DPE.

The main traffic related submissions are summarised as follows:

- Letter dated 18 August 2016 from the DPE (the DPE submission).
- Letter dated 10 August 2016 from NSW Roads & Maritime Services (the RMS submission).
- Letter dated 15 August 2016 from Transport for NSW (the TfNSW submission).
- Email of 16 August 2016 from Campbelltown City Council (the Council submission).

The RMS submission stated that RMS, "*has reviewed the submitted application and raises no objection to the proposal*". RMS raised no issues and accordingly no response is required. Similarly, the TfNSW submission raised no issues and therefore no response is required. The TfNSW submission consisted largely of recommending that DPE consider conditions relating to a Construction Traffic Management Plan and a Workplace Travel Plan (for travel demand management). Both recommended conditions have been reviewed and are considered acceptable.

In light of the above, the remainder of this Response to Submissions letter focuses on responding to the issues raised by DPE and Council. We provide our responses herewith.

## **Response to DPE Submission**

### DPE Comment 2(i)

*Please confirm the anticipated total and daily peak traffic volumes during construction. This information should include the number of heavy vehicles as a proportion of anticipated construction traffic.*

The client has provided the following information regarding forecast construction traffic volumes based on the expected delivery of the precinct:

- Peak construction personnel on-site of 350 workers, for a total of 700 light vehicle trips per day.
- Peak construction trucks to site of 200 trucks, for a total of 400 heavy vehicle trips per day.
- Morning peak hour of 125 trips with an afternoon peak of 75 trips.

With reference to our following response to DPE Comment 2(ii), it is noteworthy that the forecasted construction traffic volumes are lower than the volumes expected for operational traffic. Furthermore, noting that the network performance testing in the 2016 TIA report indicated that the study road network would accommodate the forecast operational traffic demands, it can therefore be concluded that the study road network would also accommodate the forecast construction traffic demands.

#### DPE Comment 2(ii)

*Please provide the proportions of light and heavy vehicles for predicted daily operational traffic volumes.*

Section 4.1 of the 2016 TIA report provided the following forecast operational traffic demands:

- 175 trips during the morning peak hour.
- 176 trips during the evening peak hour.
- 2,352 trips per day.

In response to DPE's comment on light and heavy vehicle proportions, based on surveys of other industrial estate roads and from the detailed site survey data from within the RMS Technical Direction TDT 2013/04a, *Guide to Traffic Generating Developments – Updated traffic surveys*, it is anticipated that:

- 80% of the forecast operational traffic would be light vehicles, and
- 20% of the forecast operational traffic would be heavy vehicles (trucks).

### **Response to Council Submission**

#### Council Comment 1

*The rate of future traffic generation should be estimated in accordance with RMS Traffic Generation Guideline and its supplements. The traffic generation rate that has been assumed in the Traffic Impact Assessment (TIA) largely varies from the "RMS Traffic Generation Guidelines".*

With reference to Section 4.1 of the 2016 TIA report, the trip rates adopted by the study have been based on trip rate data from the RMS Technical Direction TDT 2013/04a, *Guide to Traffic Generating Developments – Updated traffic surveys* (the RMS Guide Update). In particular, the trip rates have been derived from the RMS data provided for the sites of Wonderland Business Park, Eastern Creek and the Erskine Park Industrial Estate. In accordance with RMS recommended practise, the adopted trip rates have been based on these 3 sites as they best reflect the type of industrial development of the Proposal.

#### Council Comment 2

*It has been observed that a significant number of commercial and industrial premises are located in Swaffham Road. The traffic impact assessment (TIA) should consider the existing traffic generated from Swaffham Road.*

The 2016 TIA report was based on traffic survey data of the study road network that would include the traffic generated by the industrial development on Swaffham Road. Accordingly, the TIA did consider the existing traffic generated from Swaffham Road.

#### Council Comment 3

*The current Degree Of Saturation (DOS) for Campbelltown Road/Rose Payten Drive is 0.922 which already exceeds the recommended DOS (0.9) in clause 4.4.10 of AustRoads Guide to Traffic Management Part 12. Additional traffic to be generated as a result of the subject development would worsen the scenario. This is an issue that must be adequately addressed prior to any approval.*

Firstly, this intersection is an intersection of roads that are of strategic importance to RMS; therefore, comments made by RMS in relation to the performance of this intersection are of greatest priority. It is therefore noteworthy that RMS raised no concerns in relation to the forecast performance of this intersection.

Secondly, DOS is 1 of a number of performance measures that need to be considered as a part of assessing an intersections performance. When assessing the performance of an intersection, RMS guidance generally considers Average Vehicle Delay (AVD) and the corresponding Level of Service (LOS) of greater priority to DOS. In this regard, the results indicate that the intersection would (with development) have an AVD of 20.7

seconds and 24.0 seconds during the morning and evening peak periods, respectively. These AVDs correspond to an LOS of B, which indicates the intersection would perform satisfactorily at a 'good' level of operation.

In summary, the results indicate that the additional traffic to be generated by the Proposal can be satisfactorily accommodated at the intersection and indeed all intersections of the study road network. This conclusion is supported by the RMS submission, which raised no concerns with the network modelling presented in the 2016 TIA report.

Council Comment 4

*The directional analysis is to be representative of the estimated future generated trips from the subject development.*

The 2016 TIA report adopted a directional split of 75% arrivals and 25% departures during the morning peak hour (and vice versa during the evening peak hour), which is representative of what would be expected for an industrial development.

With regard to trip distribution, as specified at Section 4.3, the 2016 TIA report adopted a distribution onto the surrounding road network based generally on the travel patterns evident from the existing traffic flows on the network, combined with a review of Journey to Work census data for workers in the surrounding area. Accordingly, the distribution of traffic is representative of what would be expected for an industrial development in this location.

Council Comment 5

*The Traffic Impact Assessment (TIA) must address the proportion of heavy vehicles in peak hour traffic volume.*

With reference to our response above to DPE Comment 2(ii), based on surveys of other industrial estate roads and from the detailed site survey data from within the RMS Guide Update, the 2016 TIA report assessed the impacts of 20% of the forecast operational traffic being heavy vehicles (trucks).

Council Comment 6

*Any software model prepared for the Traffic Impact Assessment shall be submitted to Council for review.*

This is not a standard submission comment that can be literally addressed by this letter. Should DPE consider it necessary, we would be willing to issue our SIDRA traffic models to Council. It is however noteworthy that standard SIDRA outputs were attached to the 2016 TIA report at Appendix B and – as mentioned previously – RMS raised no concerns with the modelling.

Council Comment 7

*According to Figure 5 of the Traffic Impact Assessment Report, each of the left turns and northbound traffic in the roundabout of Airds Road and Culverston Road would give way to more than 350 vehicles during afternoon peak hour. On the other hand the proposed driveway of stage 2 car parking has a clearance of 120 metres from the adjacent roundabout. The queue length if extended up to the driveway would cause a hazard to the car parking. Council recommends undertaking a study to assess the Traffic Queue and the implications of the queue lengths in this area and the impact those queue lengths will have on the movement of traffic in the area.*

Firstly, it must be noted that the 350 vehicle movements referred to by Council is not a significant volume of traffic; on average less than 1 movement every 10 seconds, providing plenty of opportunity for through and left-turning traffic from the Culverston Road (south) approach to enter the roundabout.

Secondly, the SIDRA analysis provides the traffic queue assessment that Council is after. The detailed SIDRA outputs attached to the 2016 TIA report at Appendix B indicate that the forecast 95th-percentile queue of traffic exiting the Culverston Road approach would be just 0.9 vehicles in length or 6.5 metres, well short of the 120 metres referred to by Council and therefore of no material risk of creating a hazard to the car parking.

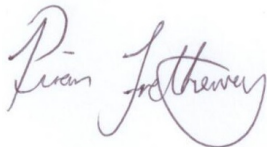
Council Comment 8

*All vehicle swept path analysis shall be undertaken using the longest design vehicle to access the site. All truck entries shall be designed in order to accommodate the opposing swept paths of the longest vehicle turning safely at the same time. In this regard, it is considered that for warehouses of the size proposed, B-double vehicles would be highly likely to use the site. Accordingly, a swept path analysis for full size B-doubles is required to be submitted to Council, to demonstrate that B-double combination vehicles will be able to access the site, manoeuvre satisfactorily, and safely leave the site in a forward direction.*

Concurrent B-Double access is not provided in the current design for Warehouses 1B, 1C and 1D as this would require excessive driveway widths which is considered undesirable due to the impact on the frontage. This is considered acceptable under AS2890.2 Clause 3.2.4 (b), which states “*The swept path of the maximum size design vehicle using the facility may be allowed to occupy the entire width (less specified clearances) of a two-way access driveway when the vehicle is entering or leaving the minor road*”. In this regard, **Attachment 1** details B-Double access to all warehouses.

I trust the above is satisfactory for your current requirements. If you have any questions or should you wish to discuss the application further, please contact the undersigned.

Yours sincerely,

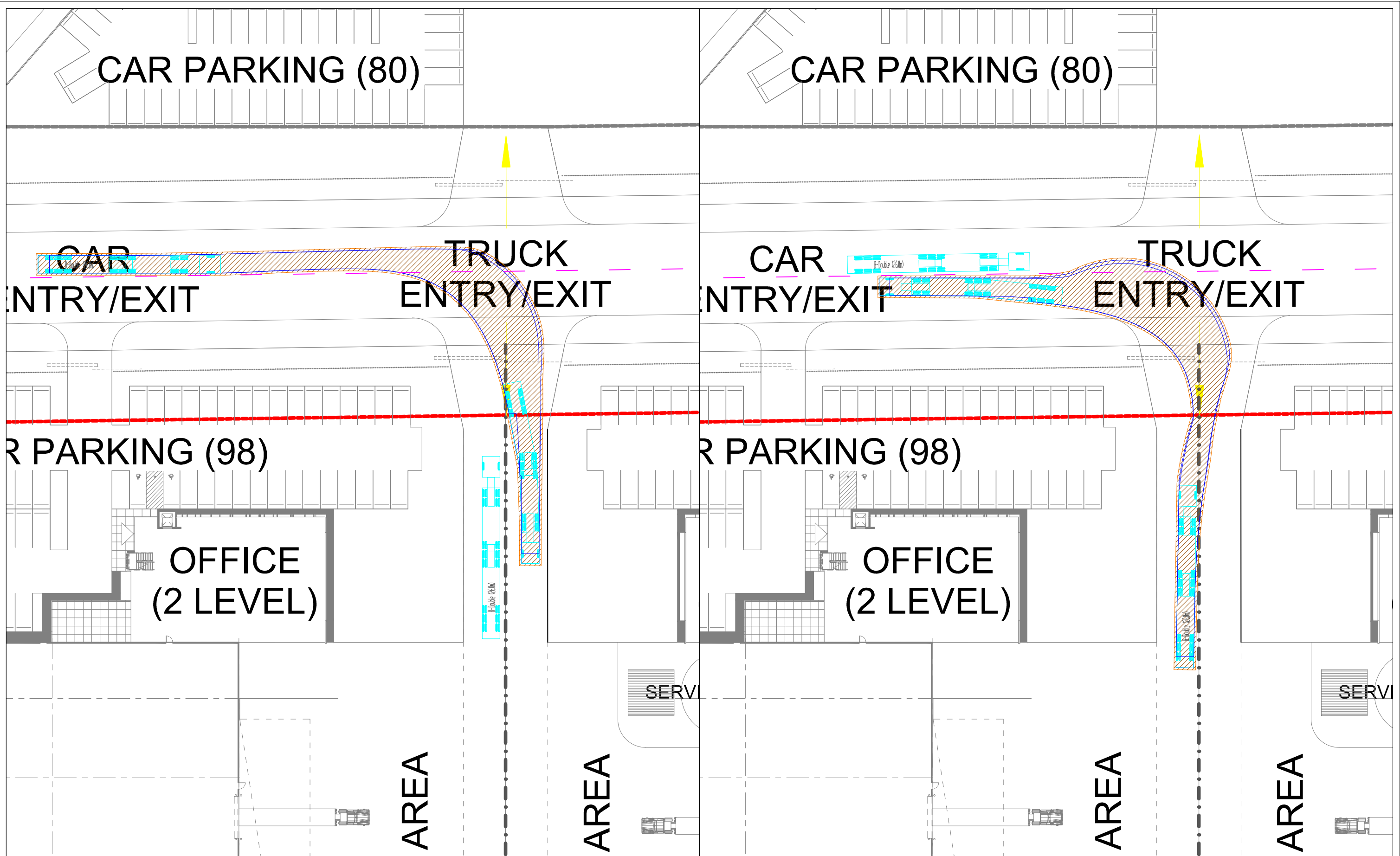


Piran Trethewey

**Director – Ason Group**

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## Attachment 1



Revision notes:

Rev:	Date:	Notes:

Drawn By:  
TL

Client:  
Tactical Group

Project:  
0191  
5 & 9 Culverston Road, Minto

Drawing Title:  
Warehouse 1B & 1C  
B-Double Access

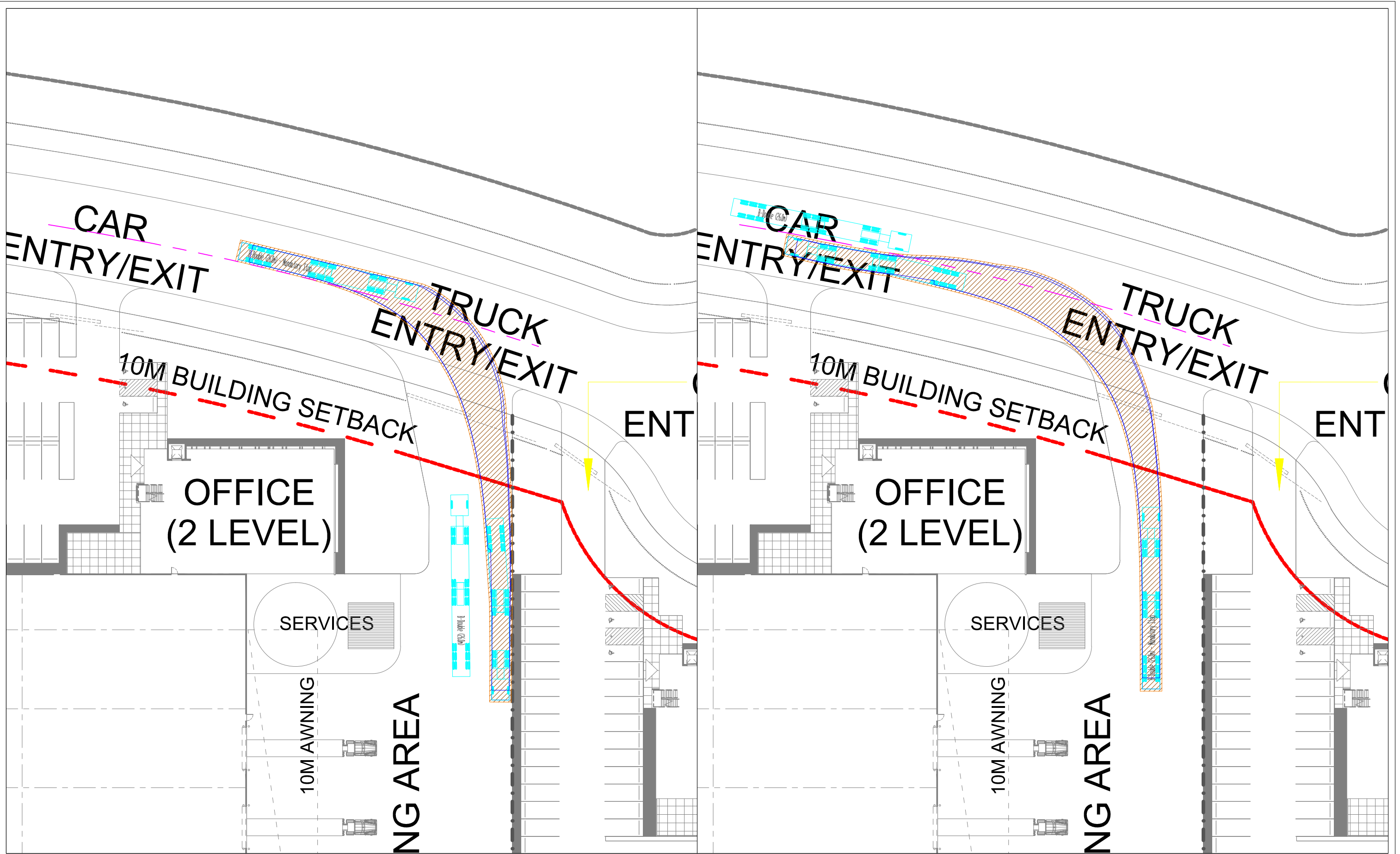
Date:  
22 September 2016

Scale @ A3:  
1:500

Revision:  
01

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Revision notes:

Rev:	Date:	Notes:

Drawn By:  
TL

Client:  
Tactical Group

Project:  
0191  
5 & 9 Culverston Road, Minto

Drawing Title:  
Warehouse 1D  
Site Access

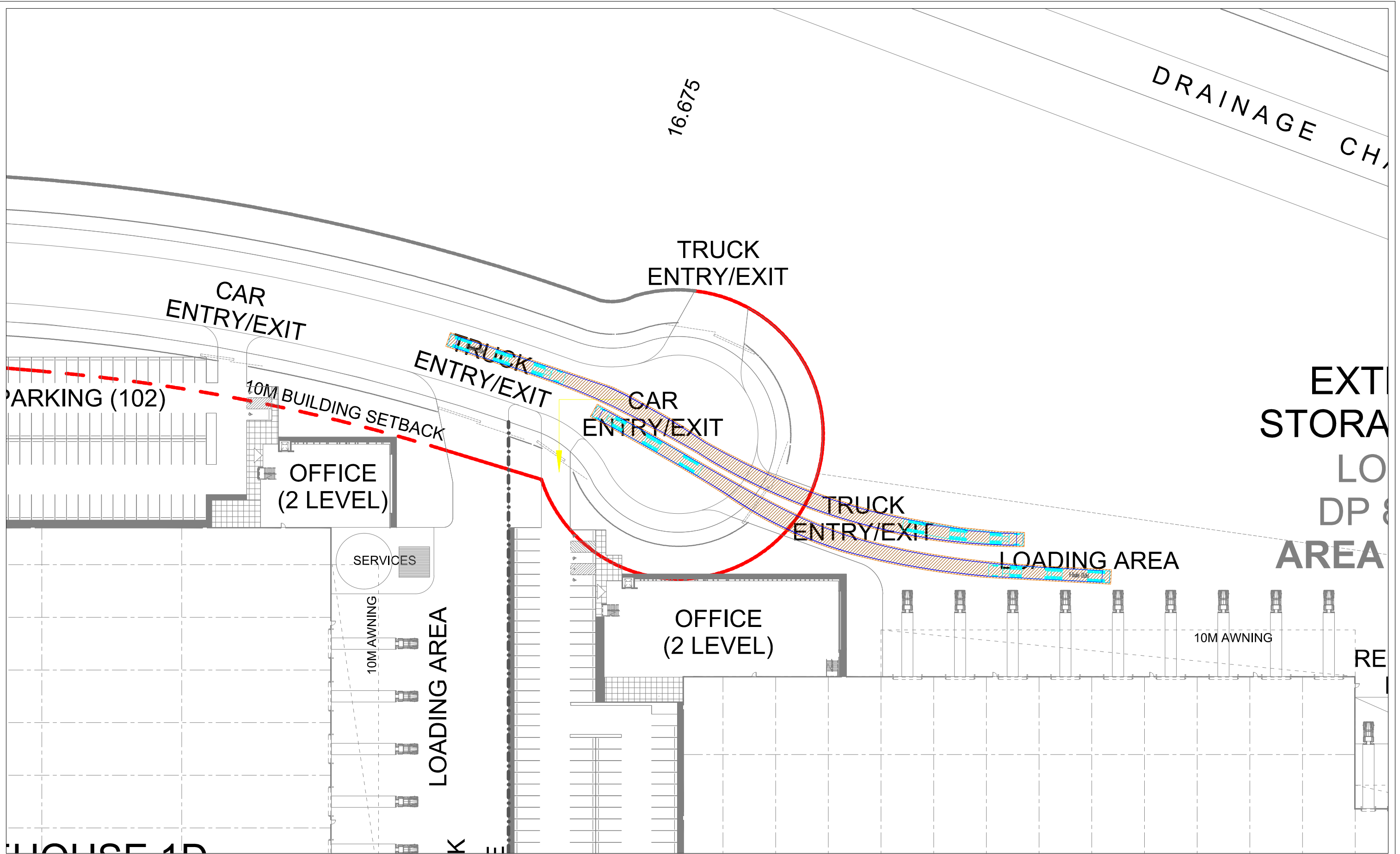
Date:  
22 September 2016

Scale @ A3:  
1:500

Revision:  
01

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Revision notes:

Rev:	Date:	Notes:

Drawn By: TL	Client: Tactical Group
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Project: 0191 5 & 9 Culverston Road, Minto	Drawing Title: Warehouse 1A Site Access
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Date: 27 April 2016	Scale @ A3: 1:750
Revision: 01	

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