

To:	Dave Paul		
From:	Martin Peake		
Project:	Milldale Notice of Requirement	Project No.	P19012
Subject:	Assessment of Section 92 Responses		
Date:	27 March 2020		

1. Introduction

A Section 92 request was issued on the Notice of Requirement for the proposed Milldale Primary School on the 9th March 2020 that dealt with traffic and transportation issues. A response was received from the Applicant's traffic engineer dated 19 March 2020. This technical note reviews the responses received and makes comments on the sufficiency of that information to assist in determining the effects of the proposals.

2. Assessment of Section 92 Responses

Set out below is an assessment and commentary on the S92 responses provided. The numbering and ordering of the assessment is that set out in the Applicant's response.

1) *Assessment of operation of the Argent Lane / Road 11 intersection*

The Section 92 request was for an assessment of the operation of the intersection in a modelling package such as SIDRA. This request was made because the ITA analysis of the intersection was undertaken utilising a network wide modelling tool which is not normally used for detailed intersection modelling. It is understood that in the ITA, the intersection was modelled as a signalised intersection which is the proposed final form of the intersection once Argent Lane is four laned.

In the S92 Response, the Applicant has provided an assessment of the intersection using SIDRA for the intersection as a roundabout and not a signalised intersection. This analysis modelled the intersection utilising the forecast traffic flows for the full school build out as provided by the network modelling in the ITA. A further assessment was undertaken as a sensitivity test with school related trips focused on Road 11 as was used in the assessment of the school site access in the ITA. The Applicant's traffic engineer considered that this sensitivity test represented a more likely trip distribution as the school access is anticipated to be located on Road 11.

The analysis of the intersection forecasts that the intersection would operate within capacity, with a level of service (LOS) of either A or B and with nominal queues on each approach. This indicates that with the full school build out, that the intersection does not need to be upgraded to a signalised intersection from a traffic operations perspective. However, considering the ability for pedestrians to cross the road at a roundabout, the volume of traffic travelling through and turning at the intersection may create difficulties for pedestrians. Therefore, an upgrade to a signalised intersection would appear to be appropriate. It is understood that the signalisation of the intersection would be undertaken by Auckland Transport as part of the four laning of Argent Lane.

The sensitivity test of the roundabout indicated that the intersection in the PM peak is approaching capacity (degree of saturation of 0.963) in the PM peak with queues of the order of 220m and a LOS D. In the AM peak, whilst the intersection is forecast to operate within capacity, queues of around 110m are anticipated on Road 11, which would extend through the intersection with the school access.

Therefore, should school traffic be concentrated onto Road 11, the analysis indicates that, as a roundabout, there are likely to be some operational issues and therefore it is considered an upgrade would be necessary for the full school roll.

The ITA included a high-level assessment of the intersection as a signalised intersection. The information provided as part of the ITA and re-iterated in the Section 92 response, is that traffic volumes could be more concentrated on Road 11 than indicated by the network wide modelling. Therefore, the more detailed assessment of the intersection using SIDRA would be required to determine whether the intersection under signal control would operate satisfactorily with the full school roll.

In conclusion, although the intersection has been analysed as a roundabout, an assessment of the intersection in SIDRA as a signalised intersection has not been undertaken. Therefore, from the information provided it has not been possible to confirm that the intersection can accommodate the school traffic satisfactorily in the proposed final intersection form.

2) Assessment of the Argent Lane / Road 11 intersection with initial roll and full school roll as a roundabout

This request was made to assess whether the change in the school roll from the initial roll to the full roll would necessitate an upgrade to the Argent Lane / Road 11 intersection from a roundabout to a signalised intersection.

The Applicant's response to Request 1 above effectively provided the assessment. This indicated that with the full school roll, and with traffic movements concentrated on Road 11 where the school access is proposed to be located, that the intersection would operate close to capacity with some operational issues due to queues extending through the school site access. The Applicant states that the intersection would operate satisfactorily but would operate more efficiently as a signalised intersection. It is understood that the intersection would be upgraded as part of the four-laning of Argent Lane. It is concurred that an upgrade to the intersection would be appropriate and that a signalised intersection would provide safer pedestrian crossing facilities than a roundabout, particularly given the proximity to the school and resulting pedestrian demand.

3) Provide an assessment of the amount of over-spill parking from the school site and how this would be managed on the local road network

This request was made as the ITA indicated that parking would occur "primarily" on site, but that "some may occur on the road frontage" (ITA Section 5.7). The ITA did not quantify the amount of parking and/or pick-up and drop-off (PUDO) to be provided on site that would be associated with the school to demonstrate that parking could be contained on site, or how much parking could possibly occur on street.

The S92 response did not provide any evaluation of parking provision on the site and simply reiterated that the necessary parking facilities can be provided to accommodate PUDO and staff parking. The S92 response defers the provision of any detail to the OPW stage.

Based on the response, there is insufficient information to determine whether all the anticipated parking requirements will be accommodated on site. Therefore, the effects of the school with respect to any over-spill parking onto the local road network surrounding the school are unknown.

The streets surrounding the school are proposed to be 5.5m wide. These are relatively narrow and parking on one side will reduce the flow of traffic to a single lane. Parking on both sides, if undertaken inappropriately, would block the movement of vehicles along the road, including the movement of emergency vehicles. Observations of the local roads in the first stage of the Milldale development which are 5.5m in width are that parking restrictions (broken yellow lines) are typically provided on one side of the street, although it is not known whether this is proposed on the roads surrounding the school. Factors such as intersections, vehicle crossings, and pedestrian crossings could also limit possible on-street parking. This may result in motorists parking further from the school to drop off and pick up children and hence effect residents further from the school and increase requirements for safe pedestrian crossing facilities.

On the above assessment, it is considered that there is insufficient information to determine whether the effects of the school in terms of parking can be appropriately managed. If over-spill parking does occur on the local roads, depending on the quantum, this could result in adverse safety and operational effects. This would affect the Road Controlling Authority (Auckland Transport) who are responsible for managing the road network.

4) Provide details of the access to the ECE and parking arrangements

In the S92 Response, the Applicant confirms that it is anticipated that there would be a separate access to the ECE, but not the location of the access as this will be determined when the site is designed. The Applicant confirmed that there would be sufficient space on the site to provide parking for the ECE.

It is acknowledged that the site has yet to be designed and therefore, it is not possible to show where the parking would be provided. However, a condition of the Outline Plan of Works could be imposed to ensure that a separate parking area is provided for the ECE.

5) Request details of who would be responsible for providing measures such as wider (2.6m wide) footpaths and pedestrian crossing facilities.

The Applicant states that the Ministry of Education has been collaborating with the developer of the surrounding road network and that the developer would be providing the wider 2.6m wide footpaths around the school as part of the development of the surrounding road network.

The S92 response indicates that pedestrian desire lines were discussed with the developer and that the location of crossings would be further assessed as part of the Outline Plan of Works process. However, the Applicant has not confirmed whether either the developer or the MoE would be providing the pedestrian crossing points. If the Applicant does not provide the facilities, this may impose a burden on Auckland Transport to do so.

6) *Provide details of how coaches would enter the site*

A tracking diagram has been provided with the S92 response that shows a coach entering the proposed site access on Road 11. This shows that a coach could access the site via this intersection albeit with some minor design amendments. This assessment shows that, subject to further design development, that a coach would be able to access the site.

3. Conclusions

Section 92 requests were submitted to the Applicant for further information on the proposed NoR for the school at Milldale. From the Section 92 response provided, there was insufficient information to be able to determine the effects of the development and that they can be appropriately avoided, remedied or mitigated as summarised below.

Evaluations of the key intersection in the vicinity of the school (Argent Lane / Road 11) have been undertaken as a roundabout in a detailed modelling package. The intersection is required to be upgraded in the future as a result of development in the area and with the school accessed along one leg of the intersection (Road 11). The upgrade would be as part of four-laning of Argent Lane and would be undertaken by Auckland Transport.

A high-level assessment of the intersection as a signal-controlled intersection has been undertaken but no detailed analysis has been provided in the Section 92 response. As there is no detailed modelling of the intersection, the Applicant has not demonstrated that the intersection would operate satisfactorily when upgraded to traffic signals with the school in place. This is particularly important as the detailed assessment for the roundabout provided by the Applicant indicates that traffic would be more concentrated on Road 11 with the school than indicated by the high-level modelling. Thus, the school may have adverse effects on the operation of the intersection in its final form compared to that indicated in the analysis in the ITA.

The Applicant anticipates that the school site will be designed to accommodate all the parking requirements for the school and the ECE on site. However, no assessment has been provided to demonstrate the anticipated parking provision for staff or student pick-up and drop-off (PUDO). It has therefore not been possible to confirm that parking can be managed on site and thus the potential for effects of spill-over parking on the local road network are unknown. Should parking occur on the local roads surrounding the school, this could result in safety and operational effects that would fall to the Road Controlling Authority (Auckland Transport) to manage.

The Applicant has confirmed that the Milldale developer will be providing wider (2.6m wide) footpaths on the roads surrounding the school. However, whilst it is anticipated that pedestrian crossing points will be required, there is no confirmation as to who would be responsible for the provision of those facilities. Should these not be provided by the Applicant, this may fall to Auckland Transport to provide those facilities.

Based on the assessment above, it is considered that the unknown effects of the school with regards to the intersection operation, parking and provision of pedestrian crossing facilities would be limited to the local road network and Auckland Transport as the Road Controlling Authority for those roads.