From: Abigail Evans (HSP Consulting Engineers Ltd)  
To: Northamptonshire County Council Highways and Planning  
Date: 16th April 2019  
Subject: Post Application Transport Technical Note for Kettering Science Academy  
(Planning Ref: 19/00008/CCDFUL, LHA Reference: 14122)

Introduction

This Transport Technical Note has been prepared by HSP Consulting Engineers Ltd to address post-application feedback in respect to the proposal for the expansion of Kettering Science Academy situated on Deeble Road, Kettering. This Transport Technical Note addresses transport related comments received and discussions on site at a meeting on Thursday 4th April 2019 and should be read alongside the Transport Assessment and Travel Plan that was submitted with the Planning Application.

Post-Application Feedback

Post-application feedback received from NCC Highways centred around the following points:

- The provided Transport Statement analysed the accident data in the vicinity of the site through utilising the CrashMap database. NCC highways state that Accident data should be obtained directly from NCC;
- NCC Highways stated that the Transport Statement does not provide any evidence of parking or traffic surveys of Windmill Avenue, Deeble Road, and the streets to the north of the school;
- NCC stated that “more survey data is required covering the usage of the drop off / pick up loop and its capacity”, and that the expected increase in staff and pupils’ numbers will require an increased parking provision.
- NCC stated that the expansion of parking spaces, should be in line with parking policy for education – secondary school establishments;
- NCC explained that Electric Vehicle Parking should be provided at 10% of the parking spaces with infrastructure in place to retrofit the remaining spaces in future;
- NCC stated that none of the existing cycle racks appear to be covered, and that covering such amenity would increase the attractiveness of using the facilities.

Proposals:

For clarification purposes, the application relates to expansion of the Secondary School and no changes to the Primary School are included. Table 1 shows the existing and proposed PAN (Pupil Admission Number) at KSA and shows how the PAN compares to the 1350 pupil capacity that was originally permitted for.

- Original PAN Ages 11 – 16 = 1100
- Original PAN Ages 16 – 18 = 250
- Design Occupancy Capacity of Existing School = 1350
- Proposed PAN Ages 11 – 16 = 1350
- Proposed PAN Ages 16 – 18 = 175
- Design Occupancy Capacity for Future = 1525
Table 1: Pupil Numbers and Comparison with Original Design Capacity

<table>
<thead>
<tr>
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<tr>
<td>11</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>240</td>
<td>270</td>
</tr>
<tr>
<td>Sub-Total A</td>
<td>1050</td>
<td>1080</td>
<td>1140</td>
<td>1200</td>
<td>1260</td>
<td>1320</td>
<td>1350</td>
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<tr>
<td>Difference to Original PAN</td>
<td>-50</td>
<td>-20</td>
<td>40</td>
<td>100</td>
<td>160</td>
<td>220</td>
<td>250</td>
</tr>
<tr>
<td>12</td>
<td>45</td>
<td>45</td>
<td>50</td>
<td>70</td>
<td>80</td>
<td>85</td>
<td>90</td>
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<td>13</td>
<td>38</td>
<td>38</td>
<td>45</td>
<td>50</td>
<td>70</td>
<td>80</td>
<td>85</td>
</tr>
<tr>
<td>Sub-total B</td>
<td>83</td>
<td>83</td>
<td>95</td>
<td>120</td>
<td>150</td>
<td>165</td>
<td>175</td>
</tr>
<tr>
<td>Difference to Original PAN</td>
<td>-167</td>
<td>-167</td>
<td>-155</td>
<td>-130</td>
<td>-100</td>
<td>-85</td>
<td>-75</td>
</tr>
<tr>
<td>Total Occupancy</td>
<td>1133</td>
<td>1163</td>
<td>1235</td>
<td>1320</td>
<td>1410</td>
<td>1485</td>
<td>1525</td>
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<tr>
<td>Difference to Original Occupancy Capacity</td>
<td>-217</td>
<td>-187</td>
<td>-115</td>
<td>-30</td>
<td>60</td>
<td>135</td>
<td>175</td>
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</tbody>
</table>

As can be seen from Table 1, as the pupil numbers will increase gradually and the school is currently under capacity, the permitted design capacity of 1350 won’t increase until September 2021.

**Site Visit:**

A site visit was conducted at Kettering Science Academy on the 4th of April 2019, with the following representatives in attendance:

- Matt Isherwood (Brooke Weston Trust)
- Rob Sim-Jones (Northamptonshire County Council Highways)
- Martin Draper (Northamptonshire County Council Highways)
- Abigail Evans (HSP Consulting)
- Leigh Kennedy (HSP Consulting)

The existing conditions of Kettering Science Academy at school closing time were reviewed for the purpose of determining the capacity of the on-site pupil pick up and drop off facility, in addition to the utilisation of the car park. The existing operations of the vehicular access, and also the pedestrian / vehicle activity on Deeble Road were observed, with the below points being acknowledged by all parties:

- The vehicle access operated satisfactorily, with vehicles entering the site and no queuing back onto Deeble Road. Vehicles existing were able to queue within the site without causing blocking back to the entry. There were no concerns with regards to road safety at the access point, which is separated from the pupil entry and exit access;
The pupil pick up and drop off point was working well, with vehicles parking around the swale and in designated spaces and not blocking through traffic within the site. Traffic moved steadily within the site and around the designated pupil pick up / drop off area;

There was limited, if any conflict of vehicle traffic between Kettering Science Academy and the neighbouring Compass Primary School. It was noted that the majority of picking up activity at the Compass Primary School was by foot, with only a handful of vehicles picking up pupils. These vehicles were using empty car parking spaces within the car park near to the CPA. The CPA finishes ten minutes before KSA.

The car park layout worked well, with the internal rows dispersing vehicle traffic around the site, and ultimately allowing the steady movement of traffic to the exit;

It was agreed amongst all parties, that the level of car parking provision provided as existing is sufficient, given the degree of available spaces that were unoccupied up to and at school closing time. It was observed that there were a significant number of available vehicle spaces in the centre of the car park, in addition to along the northern perimeter of the site and that this could be made more efficient with further allocation of visitor parking bays to ensure empty spaces are clearly seen at school pick up times as these are scattered within the car park. A previous observation of the car park prior to CPA and KSA finish time (15:00) showed that there 140 CPA and KSA staff / sixth form parked (40 CPA staff park) plus 8 parents waiting for CPA pupils in the main car parking zone. This left 42 empty spaces within the main car park, which has 190 spaces. The visitor / pick up and drop off spaces surrounding the swale were occupied with some cars parking on both sides of the drop off, but traffic still flowing between them. The car park has a one way circulation. The original barriers installed at the access and car park are now permanently raised so that there is no stopping or queuing.

It was observed that the shared cycle and pedestrian footpath adjacent to the site was utilised to a great extent by pupils, with a limited number of pupils crossing the highway of Deeble Road. When pupils crossed the highway, they did so by utilising the controlled pedestrian crossings including that of the signalised pelican crossing and zebra crossing adjacent to the site.

It was observed that there was no pupil pick up / drop off activity occurring on Deeble Road, with this activity solely taking place and being accommodated sufficiently within the site.

**Additional Traffic Generation**

The expansion of KSA could generate up to 45 additional vehicles at the start and end of the school day from its permitted to its proposed, ultimate capacity, which is an additional 90 from the existing as the school is currently operating under capacity. However, not all these vehicles arrive at the same time. In the morning, pupils are dropped off over at least a 30 minute period and vehicle duration within the site is under 3 minutes. In the afternoon, there is observed to be approximately 30% of pupils staying for after school activities which results in the majority of pupils collected at 15:20 and the others after 16:00 and at the end of after school clubs. Furthermore, the Travel Plan targets a reduction in the number of vehicles and an increase in the uptake of sustainable travel to mitigate somewhat against the increase in pupil numbers and potential traffic. The school does already have a comparatively low percentage of pupils travelling by car (25%). The additional pupils will live in the local area and be able to walk or cycle to KSA. Pupils that live in outlying villages use the free school transport bus that drops off and picks up within the site.
Proposed Changes to the Car and Cycle Parking

As discussed during the site visit, it was agreed to implement the following to accommodate the additional pupil parent pick up / drop off activity associated with the expansion of the school and also to ensure the proposal is in line with the requirements of NCC Highways. The on-site proposals are highlighted in Figure 1.

- To allocate an additional 20 bays for visitors so that staff park in the rest of the parking area and available spaces are clearly visible and more useable for pick up and drop off. It was agreed amongst all parties that the row of bays adjacent to the existing visitor bays would be suitable for this allocation. VISTORS will be painted in front of these bays, the same as the other visitor parking areas.

- New signage is to be provided within the car park and, in particular, on approach to the existing staff parking area, to encourage use of the car park for overflow circulation at pupil pick up / drop off activity.

- Northamptonshire County Council agreed that it would be acceptable to cover the existing secure cycle compound in front of the school. There is a total of 112 cycle parking spaces of which 40 will be covered. It was agreed that there is sufficient spare capacity to accommodate additional demand in cycling but that the usage will be monitored by the school.
Figure 1: Proposed Changes to Car and Cycle Parking
Accident Data

The National Planning Practice Guidance (PPG) ‘Transport evidence bases in plan making and decision taking’ document states that, “Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic mitigation measures will help to alleviate the problems”.

Accident data has been obtained from Northamptonshire County Council for the latest five-year period (2014 - 2018) within the vicinity of the site. Figure 2 illustrates the scope of study area for the accident data that has been subsequently analysed.

![Figure 2: Scope of Accident Study Area](image)

Table 2 includes a summary of the recorded accidents of which there have been a total of 10 in the study area in the last five years. There have been less accidents year on year since 2014.

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>Total</th>
<th>% of Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slight</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>70%</td>
</tr>
<tr>
<td>Serious</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>Fatal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>10</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2: Accident Data (2014 – 2018)
For the purpose of analysing the accident data further, Table 3 categorises the accident data according to causality.

### Table 3: Accident Data (2014 – 2018)

<table>
<thead>
<tr>
<th>Severity</th>
<th>Vehicle Only Collisions</th>
<th>Collisions involving pedestrians</th>
<th>Collisions involving pedal cyclists</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slight</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Serious</td>
<td>2</td>
<td>1</td>
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<td>3</td>
</tr>
<tr>
<td>Fatal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

The relatively low number of accidents involving pedestrians and in particular no accidents involving cyclists is positive, and highlights that the site benefits from high-quality infrastructure to facilitate the safe crossing of pedestrians and off road paths for cyclists.

None of the reported causalities were under 16 years of age. There were four accidents with reported causalities between 16 – 19 years of age. One of these occurred at 15:40 on a weekday and occurred at the Zebra crossing on Deeble Road (one vehicle colliding into another that had stopped at crossing – no pedestrian casualty). One occurred at the Zebra crossing at 17:15 on a weekday and could be attributed to a pupil leaving an after school club and involved a car colliding with the rear of a motorcycle that had stopped at the zebra crossing. One was an all vehicle collision at the mini roundabout on Windmill Avenue on a Saturday and one was an all vehicle collision at the service road junction on Windmill Avenue which resulted in a serious injury to a motorcycle rider at 18:11 on weekday (daylight).

From a review of the accident data, it can be considered that the total number of accidents in the study area is relatively low, and in particular there has been a small number of accidents that are related to pedestrian or cycle incidents. Based on this, and that the majority of accidents were attributed to slight severity, it can be concluded that the road safety record does not represent a material concern in the context of the proposed development and is unlikely to be exacerbated following the expansion of Kettering Science Academy. Notwithstanding this, the Travel Plan includes road safety training and awareness for pupils and staff.

**Conclusion:**

In conclusion, the following points are to be considered:

- As examined from an on-site visit, the existing car park layout of the school works well with the pupil pick up and drop off point flowing at peak school time periods;

- The existing car park is shown to be under-utilised, with circa 40 spaces being unoccupied during peak school time periods. Based on this, there is not a requirement to provide additional parking to that of existing, but proposals are included to allocate additional spaces to visitors and signage to direct vehicles to use the car park aisles for circulation and queuing at peak times.

- To encourage greater uptake of cycling, the existing secure cycle compound will be covered.
Traffic generated by the school at peak time periods, is observed to be contained within the site with no pick up / drop off activity occurring on Deeble Road. Traffic along Deeble road is shown to move steadily, with no concerns towards the road safety of traffic entering into and out of the site; nor the crossing of pedestrians / pupils across the access;

The site is situated within an accessible location, fronting onto a shared pedestrian and cycle footway which directly links to dense residential housing communities within Kettering;

Deeble Road, adjacent to the site, is heavily traffic calmed, with the presence of controlled pedestrian crossings (including that of a signalised, zebra crossing) adjacent to the site, in addition to vehicle activated signs informing vehicles of the subjected 30mph speed limit on the highway;

Accident Data, within the vicinity of the site, has been subsequently analysed, highlighting that there are no trends in the causality of the accidents, and concluding that the proposals are unlikely to have a material effect in increasing the number of road traffic accidents in the immediate area. It can be concluded that the number of road traffic accidents is lower than what would typically be expected on the local road network.

The number of pupils and traffic will increase steadily each year until full capacity is reached.

The school is to update its Travel Plan with the latest pupil and staff hands up surveys and is to register with the nationally accredited Modeshift Stars. Modeshift Stars is widely known as a national school’s awards scheme that has been established to recognise schools that have demonstrated excellence in supporting cycling, walking and other forms of sustainable travel. The scheme actively encourages both pupils and staff to increase levels of sustainable and active travel in order to improve the health and well-being of children and young people. The Travel Plan encompasses a number of targets that are SMART (Specific, Measurable, Achievable, Relatable and Timebound) to maximise sustainable activity and minimise single occupancy vehicle usage at the site.

The Travel Plan is an evolving document and, in line with national and local policy, will assist to decrease the number of vehicles taking access and egressing from Kettering Science Academy, with a focus on maximising sustainable activity as the school continues to expand.

Based on the supplied evidence within this technical note and the Transport Assessment, it is to be concluded that the proposed development is an appropriate scheme in line with current policies (both national and local) and should not have a material negative impact on the surrounding highway and transportation network and therefore is to be considered acceptable on highways grounds.