APPENDIX 5 (c) -

TRANSPORT CORRESPONDENCE SUMMARY NOTE
1 INTRODUCTION

1.1 This summary note has been prepared following a request from South Northamptonshire Council for a concise summary of the correspondence between David Tucker Associates (DTA) and Highways England (HE) leading to the conclusion that the scheme is acceptable to HE to be included within the Local Plan. For the sake of completeness, this note also includes reference to correspondence with Northamptonshire County Council (NCC) as Local Highway Authority.

2 SEQUENCE OF EVENTS

2.1 Site Access Feasibility Note

2.1.1 DTA initially prepared a Site Access Feasibility Appraisal Note (Ref: 16322-01) in September 2016 which demonstrated access to the site could be suitably achieved from the A508 Northampton Road.

2.1.2 NCC responded on 12th October 2016 confirming that the principle of the site access roundabout and location is agreed to serve the development type and quantum.

2.1.3 HE responded on 9th November 2016 via letter confirming that from a strategic road network perspective, there would be no issue around the inclusion of the site within the South Northamptonshire LPP2.

2.2 Transport Appraisal

2.2.1 Following this South Northamptonshire Council requested further evidence with regards to the wider traffic impact in respect of the site on the strategic road network. In response to this DTA prepared a Transport Appraisal (Ref: 16322-02) in August 2017 for issue to NCC and HE. This included a traffic signal model of the A5/ A508/ A422 roundabout junction. The report concluded that although the junction would be operating at capacity in a future year of 2027 the increase in queuing as a result of the site proposals is not significant and overall junction operation is not compromised as a result.

2.2.2 NCC responded on 22nd September 2017 with comments on access by sustainable
modes and in their view the A5/A508/A422 roundabout was shown to be operating over capacity in the future year which is made worse by development traffic.

2.2.3 HE responded on 21st September 2017 stating that an assessment would be required considering growth in the area to the end of the Local Plan period which was confirmed to be 2031.

2.3 Transport Appraisal Addendum

2.3.1 Subsequently, an Addendum to the Transport Appraisal was prepared (Ref: 16322-03) in October 2017 which included a 2031 assessment, a mitigation scheme at the A5/A508/A422 junction and further detail on how the site could be accessed on foot, by cycle and by bus, which should be discussed further at a planning application stage. The mitigation scheme involved an additional lane in the northbound direction on the A508 which would merge in advance of the site access roundabout.

2.3.2 NCC responded on 23rd October 2017 which confirmed the information submitted was sufficient at this stage with a more detailed and wider assessment being required to support any future planning application. A copy of this correspondence is included in Appendix A.

2.3.3 HE responded on 8th November 2017 following review of the mitigation scheme. Their view was that whilst the scheme provided additional capacity the junction was shown to be operating over capacity in 2031 in the AM peak.

2.3.4 Following this DTA responded to HE requesting re-consideration of their position in light of the modelling results. In addition, a modified mitigation scheme was presented which involved minor white line changes on the Deanshanger Road approach to provide additional capacity.

2.3.5 On 12th December 2017, HE responded confirming that the impact of the proposed development on the operation of the A5 approaches with the mitigation scheme is not significant and the proposed scheme layout is therefore acceptable to Highways England to be included in the Local Plan. A copy of this correspondence is included in Appendix B.
Good morning Jacqueline,

Thank you for your latest report. This is considered to be sufficient at this stage. Clearly more detailed and wider assessment would be required to support any future planning application.

Kind regards,

Rob

Rob Sim-Jones
Principal Engineer – (Principal Lead) Development Management
Northamptonshire Highways
One Angel Square
Angel Street
Northampton
NN1 1ED
DDI: +44(0)1604 364338
Web: www.kierwsp.co.uk;
Hi Martin/Rob,

In response to your comments, please find attached an Addendum to our Transport Appraisal.

I trust this addresses your concerns and you are content from a highways perspective that the site can be considered for inclusion in the Local Plan.

Regards,

Jacqueline Aggiss
David Tucker Associates
Transport Planning Consultants
Appendix B
Hi Jacqueline

Thank you for your email and for undertaking a further review the operation of the junction in 2031 with development and mitigation. Please accept my apologies for delaying in providing a response.

We would agree that a negative overall Practical Reserve Capacity (PRC) does not intrinsically make the mitigation scheme put forward unacceptable. We have therefore undertaken a more detailed review of the impact of the proposed development site specifically looking at the A5 approaches with and without the revised mitigation scheme.

The latest LINSIG modelling shows that in the 2031 base scenario, the A5 East approach will have a maximum degree of saturation (DoS) of 65% and the A5 West approach will have a maximum DoS of 88% in the AM peak. With the addition of Furtho Pit development traffic, the DoS will change to 63% and 90% respectively. In the 2031 base scenario PM peak, the A5 East approach will have a maximum DoS of 83% and the A5 West approach will have a maximum DoS of 84%. With the addition of development traffic, the DoS will change to 84% and 85% respectively.

A comparison of queue lengths between the ‘with development’ and ‘without development’ scenarios shows that the development traffic will add a maximum of one vehicle to the queue in each approach lane. It can therefore be concluded that the impact of the proposed development on the operation of the A5 approaches with the mitigation scheme is not significant. The proposed scheme layout is therefore acceptable to Highways England to be included in the Local Plan.

Kind regards

Martin Seldon, Assistant Spatial Planning & Economic Development Manager
Highways England | The Cube | 199 Wharfside Street | Birmingham | B1 1RN
Tel: +44 (0) 300 4703345 | Mobile: + 44 (0) 7787 321 881
Web: http://www.highways.gov.uk
GTN: 0300 470 3345

Hi Martin,

Sorry to chase, but please can you let me know when we may receive a response?

Thanks.

Regards,

Jacqueline Aggiss
Hi Jacqueline

I should be able to respond in the next couple of days.

Kind regards

Martin Seldon, Assistant Spatial Planning & Economic Development Manager
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Web: http://www.highways.gov.uk
GTN: 0300 470 3345

Hi Martin,

I wondered if you could give me an update on your response please?

Thanks.

Regards,

Jacqueline Aggiss
David Tucker Associates
Transport Planning Consultants
Hi Jacqueline

Thank you for your e-mail. I will respond more fully shortly.

Kind regards

Martin Seldon, Assistant Spatial Planning & Economic Development Manager
Highways England | The Cube | 199 Wharfside Street | Birmingham | B1 1RN
Tel: +44 (0) 300 4703345 | Mobile: + 44 (0) 7787 321 881
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GTN: 0300 470 3345

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From: Jacqueline Aggiss [mailto:JA@dtatransportation.co.uk]
Sent: 17 November 2017 10:28
To: Seldon, Martin; Sim-Jones, Rob
Cc: Simon Parfitt
Subject: RE: Furtho Pit - Local Plan Allocation

Hi Martin,

Thanks for your time on the phone last week. We are in receipt of HE’s response to our latest submission with regards to the Furtho Pit Local Plan Allocation.

Within the response it is noted that HE do not fully accept the mitigation scheme put forward as it is stated that the “results in Table 2 [of our Addendum Note] suggest that the junction is operating over capacity in 2031 in the AM peak”. The results indicate an overall Practical Reserve Capacity (PRC) of -2.0% in the AM peak period in 2031, however criticism of this does not respect good practice targeted junction capacity characteristics of a signalised roundabout.

In our Addendum TA, the PRC figures were deliberately presented in a comparative sense. The PRC is defined as a summary result within the LINSIG manual and is useful for comparing scenarios, but with signalised roundabouts in particular it does not necessarily reflect an “overcapacity” outcome on the ground. This is because, as defined in paragraph 4.22.1.3 of the LINSIG manual, the PRC is calculated from the maximum degree of saturation on a lane whilst maintaining a maximum degree of saturation of 90% on all lanes. In the case of signalised roundabouts however, this contradicts good practice, which is to actively aim to achieve degrees of saturation on entry links of between 80 and 95% (for example, as at TRRL Research Report 274 – The Use of Transyt at Signalised Roundabouts). Therefore, far from reflecting a problem, achieving degrees of saturation at or over 90% maximises the chance of delivering efficient platoons of traffic on the circulatory carriageway, hence maximising junction throughput. This intrinsically triggers a negative PRC, hence why this statistic is principally relevant only in a comparative sense in an appraisal such as this.

Notwithstanding this, we have further reviewed the operation of the junction in 2031 with development with mitigation and now include some minor white line changes on the Deanshanger Road approach to provide additional capacity. The results of this are attached. To illustrate that the junction is demonstrated to operate satisfactorily, the mean max queues in the 2031 base AM + Dev + Mitigation are annotated on the attached sketch of the roundabout. This illustrates that the roundabout works efficiently, and that even more specifically queues on
the Highways England approaches remain at 13 vehicles on the A5 north and 8 vehicles on the A5 south. All approach arms and circulatory stop lines clear within the first green signal and so delays are low. The operation of the roundabout and in particular, the trunk road network will not experience queues or delays in a future year of 2031.

However, it is appropriate to make a direct comparison between the 2031 base scenario (without the scheme or mitigation) and the 2031 base plus development scenario (with the scheme and mitigation). These were highlighted in bold within our Addendum for clarity and are reproduced below. The results with the additional design changes have also been included.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Practical Reserve Capacity (%)</th>
<th>Delay (pcuHr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2031 Base AM (without mitigation)</td>
<td>-11.6</td>
<td>101</td>
</tr>
<tr>
<td>2031 Base PM (without mitigation)</td>
<td>-11.7</td>
<td>106</td>
</tr>
<tr>
<td>2031 Base AM + Dev (with mitigation)</td>
<td>-2.0</td>
<td>79</td>
</tr>
<tr>
<td>2031 Base PM + Dev (with mitigation)</td>
<td>2.5</td>
<td>63</td>
</tr>
<tr>
<td>2031 Base AM + Dev (with further mitigation)</td>
<td>0.2</td>
<td>74</td>
</tr>
<tr>
<td>2031 Base PM + Dev (with further mitigation)</td>
<td>4.0</td>
<td>67</td>
</tr>
</tbody>
</table>

As shown above, the junction will be more likely to experience queues and delays in the 2031 base scenario. The mitigation schemes put forward significantly improves overall junction and more than mitigates the impact of the development in a future year of 2031 (queues on A5 are reduced from 18 to 13 vehicles). This therefore has clear benefits for the operation of the trunk road network.

At this stage we are promoting the site to be allocated as part of the Local Plan process and we have adequately demonstrated that the development can come forward without detriment to the trunk road network in a future year of 2031. Furthermore, it has been demonstrated that the scheme associated with the proposals will significantly improve the operation of the roundabout. We therefore respectfully request that HE review their current position to allow the site to be allocated in the Local Plan.

As discussed, I would be grateful if you could pass this onto your consultants for their review. We would appreciate a response as soon as convenient.

Regards,

Jacqueline Aggiss
David Tucker Associates
Transport Planning Consultants

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From: Seldon, Martin [mailto:Martin.Seldon@highwaysengland.co.uk]
Sent: 08 November 2017 09:09
To: Jacqueline Aggiss <JA@dtatransportation.co.uk>; Sim-Jones, Rob <RSim-Jones@kierwsp.co.uk>
Hi Jacqueline

Thank you for your e-mail.

Please see our attached response.

Kind regards

Martin Seldon, Assistant Spatial Planning & Economic Development Manager
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From: Jacqueline Aggiss [mailto:JA@dtatransportation.co.uk]
Sent: 20 October 2017 13:00
To: Seldon, Martin; Sim-Jones, Rob
Cc: Simon Parfitt
Subject: Furtho Pit - Local Plan Allocation

Hi Martin/Rob,

In response to your comments, please find attached an Addendum to our Transport Appraisal.

I trust this addresses your concerns and you are content from a highways perspective that the site can be considered for inclusion in the Local Plan.

Regards,

Jacqueline Aggiss
David Tucker Associates
Transport Planning Consultants

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