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Project:	<b>Highways England Spatial Planning Arrangement 2016-2020</b>	Job No:	<b>60600479 DM014.007</b>
Subject:	<b>South Caldecotte Revised Transport Assessment Review</b>		
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Checked by:	<b>Liz Judson</b>	Date:	<b>21<sup>st</sup> January 2020</b>
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### Executive Summary

Following the review of the revised Transport Assessment associated with an employment led development proposal in South Caldecotte in Milton Keynes, AECOM make the following recommendations:

Recommendations regarded as critical to the acceptability of this planning application:

1. A capacity assessment should be undertaken at the A5 Redmoor junction (para 2.5).
2. Once VISSIM modelling issues are resolved (see TN07), revised model outputs should be provided within the TA for review by AECOM (para 2.9).

Recommendations regarded as important but not critical to the acceptability of this planning application:

3. As there is predicted to be a material increase in trip numbers as a result of the proposed development at Redmoor roundabout, PIC analysis should be undertaken at this junction (para 3.7).
4. Further details of the bus provision proposals are provided to enable AECOM to determine whether they are likely to result in a shift away from private car use (para 3.8).

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## 1. Introduction

- 1.1. This Technical Note (TN06) has been prepared by AECOM on behalf of Highways England (HE) to document a review of a revised Transport Assessment (TA) prepared by BWB Consulting Ltd (BWB). The TA is associated with an outline planning application for a proposed employment development site in South Caldecotte, Milton Keynes (planning reference: 19/01818/OUT).
- 1.2. The outline planning application proposes that the site will encompass up to 241,540 sqm (2,600,000sqft) of B1(c), B2, and B8 land uses. This includes storage, warehouses, distribution and light industrial and ancillary offices.
- 1.3. The development site is located in South Caldecotte in Milton Keynes and is proposed to be allocated under policy SD14 of MKC's 'Adopted local plan: Plan MK' (March 2019) for a mixed employment development of B2/B8 uses.
- 1.4. AECOM have previously reviewed an original Transport Assessment prepared by BWB for the same site (TN02\_Review of South Caldecotte TA V7), which will be referred to in this note as TN02. A number of recommendations by AECOM were made in TN02, and whether these have been adequately addressed within the revised TA will be considered in TN06.
- 1.5. HE are responsible for the monitoring, management and maintenance of the Strategic Road Network (SRN). The nearest access point for this development to the existing SRN is the A5/A4146/Brickhill Street roundabout, also known as Kelly's Kitchen roundabout, which is located on the southern edge of the proposed development, approximately 300m from the site access junction on Brickhill Street. The purpose of this technical note is to determine whether the concerns raised in AECOM's TN02 have been addressed sufficiently and whether there are any other issues outstanding from the review of the TA that still need to be addressed.
- 1.6. This technical note should be read alongside 'TN07 South Caldecotte Revised Forecast VISSIM review\_v13' (TN07), which is a review of the latest A5/A4146 roundabout VISSIM models prepared to support the development proposals.
- 1.7. For ease of reference, AECOM's main comments and recommendations are presented in bold and underlined text throughout the note. Recommendations that are considered critical to the acceptability of the planning application are coloured **red**. Recommendations that should be addressed but are not critical to the acceptability of the planning application are highlighted in **amber**. Recommendations that were previously identified, which have now been satisfactorily resolved are coloured **green**.

## 2. Recommendations previously regarded as critical to the acceptability of this planning application:

### **AECOM Recommendation 1.**

*That the impact of the proposed development (both light vehicles and HGVs) at any other junctions on the SRN is established and that if it is considered to be significant then consideration should be*

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*given to undertaking capacity assessments at the junction(s) to determine its operation following development.*

- 2.1. It should be noted that higher B8 trip rates have been used within the revised TA to calculate trip generation, when compared with those previously agreed by AECOM. This is considered to be a robust approach and is accepted by AECOM.
- 2.2. Using AECOM's trip distribution BWB have assigned the development traffic onto the wider highway network. The distribution illustrated the following traffic flows:
  - A5 Redmoor Junction: AM peak 62 arrival trips and 38 departure trips, PM peak 25 arrival trips and 54 departure trips.
  - A5 Portway Junction: AM peak 39 arrival trips and 29 departure trips, PM peak 20 arrival trips and 38 departure trips.
  - A5 Monks Way: AM peak 36 arrival trips and 26 departure trips, PM peak 19 arrival trips and 33 departure trips.
  - M1 J13: AM peak 21 arrival trips and 8 departure trips, PM peak 13 arrival trips and 18 departure trips.
  - M1 J14: AM peak 58 arrival trips and 24 departure trips, PM peak 36 arrival trips and 51 departure trips.
- 2.3. BWB state that the totals for the A5 junctions above include through trips on the mainline and therefore that the majority of trips will not impact on the junctions in question. However, AECOM consider that the percentages they previously identified were all expected to route via the junctions, not just on the mainline, and therefore AECOM calculate that the following light vehicle trips could route via the junctions as a result of development:
  - A5/V6 Redmoor Roundabout Junction: AM peak 54 arrival trips and 29 departure trips, PM peak 17 arrival trips and 46 departure trips.
  - A5/A509 Portway Roundabout Junction: AM peak 25 arrival trips and 14 departure trips, PM peak 8 arrival trips and 21 departure trips.
  - A5/H3 Monks Way Roundabout Junction: AM peak 29 arrival trips and 16 departure trips, PM peak 9 arrival trips and 24 departure trips.
  - M1 J13 A421 Roundabouts: AM peak 18 arrival trips and 10 departure trips, PM peak 6 arrival trips and 15 departure trips.
  - M1 J14 / A509 Roundabout: AM peak 50 arrival trips and 27 departure trips, PM peak 16 arrival trips and 43 departure trips.

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- 2.4. It should be noted that these totals above do not include HGV trips. The TA indicates that 0 HGV trips are predicted to route via the three A5 junctions (HGVs will only continue along the mainline carriageway). There is predicted to be a small number of HGVs that route via the M1 junctions, however these are minimal.
- 2.5. BWB have stated that based on the above traffic flow no further assessment of the impacts on the wider SRN is deemed necessary. Based on the numbers presented in section 2.3 above AECOM consider that junction capacity assessments are not required at A5 Portway Junction, A5 Monks Way junction and M1 Junction 13. However due to the number of trips in both the AM and PM peak, and given the proximity to the proposed development, **AECOM recommend that a capacity assessment is undertaken at the A5 Redmoor junction.** AECOM consider that the impact could also be material at M1 Junction 14, however the development site is located a notable distance from M1 Junction 14 and therefore it may not be considered reasonable to ask the developers to assess the impact at this junction.
- 2.6. AECOM also note that the percentage of HGVs that are predicted to route via the A5/A4146 Kelly's Kitchen roundabout has been reduced since the original TA was submitted. The explanation for this is, following discussions with SMT (Milton Keynes Council consultants), to undertake a 'worst case' assessment on the local highway network. Whilst AECOM consider that this may be underestimating the number of HGVs routing via the A5/A4146 roundabout, the change in the total number development trips at the junction is likely to be small and therefore is considered to be acceptable.

### **AECOM Recommendation 2.**

*That the results of the modelling assessment undertaken should be presented in a format where Highways England can assess whether the capacity of the junction has been exceeded. The tables of comparative journey time information presented in the TA for routes which incorporate the A5 Kelly's Kitchen junction do not allow a detailed understanding of how the junction is predicted to operate, the queues that are forming and where, whether internal stacking spaces will be exceeded, whether excessive delays are predicted to occur on individual approaches, or within individual traffic lanes and whether the operation of the junction will give rise to potential safety concerns. Any other outputs from VISSIM that could demonstrate the operation of the junction should also be provided within a revised TA or further documentation.*

- 2.7. AECOM have undertaken a review of the revised VISSIM base and forecast models of the A5/Kelly's Kitchen Roundabout presented to support the TA within TN07, which should be read alongside this note.
- 2.8. TN07 raises a number of concerns regarding the operation of the signals and network coding of Kelly's Kitchen roundabout in the forecast scenarios. Furthermore as detailed in AECOM's TN07 the submitted model fails to replicate the results shown in the accompanying forecast report for the AM peak for Scenarios 2 through to 6.
- 2.9. The analysis of PM journey time results in TN07 and the network performance results presented, indicate that the proposed development would have a significant adverse impact on the operation Kelly's Kitchen Roundabout. However before AECOM draw any final conclusions regarding the impact of the proposed development on Kelly's Kitchen, **it is recommended that after these**

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**modelling issues are resolved that revised model outputs are provided within the TA for review by AECOM.**

**AECOM Recommendation 3.**

*That in addition to AECOM understanding whether the capacity of the junction is predicted to be exceeded, it is also important for the model outputs to be presented for the ‘without’ development and ‘with’ development scenarios to determine whether the addition of the South Caldecotte development is expected to result in a severe impact on the junction when compared to the ‘without’ development scenario. If this is the case then measures (or further measures over and above the current layout and/or proposed Eaton Leys scheme) may need to be identified to support the proposed development.*

- 2.10. The model outputs have now been presented for the ‘without’ development and ‘with’ development scenarios. These are commented on further within AECOM’s review of the revised VISSIM model (refer to TN07). However, as AECOM have raised concerns with the revised VISSIM model inputs within TN07, **revised outputs should be presented for review after the model issues have been addressed.**

**AECOM Recommendation 4.**

*That once the VISSIM model issues are resolved (as detailed in TN03), that revised model outputs are provided within the TA for review by AECOM.*

- 2.11. **As detailed above, there are a number of VISSIM model issues that will need to be resolved and therefore this recommendation is still valid.**

**3. Recommendations previously regarded as important but not critical to the acceptability of this planning application**

**AECOM Recommendation 5.**

*That when considering the impact of the development on the SRN, it is recommended that reference is made to DfT Circular 02/2013, together with Highway England’s ‘The Strategic Road Network: Planning for the Future (a guide to working with Highway’s England on planning matters)’ both of which provide guidance regarding how the impact of the proposed development on the SRN should be assessed.*

- 3.1. The revised TA includes a review of the following national and local planning documents:
- The National Planning Policy Framework (NPPF) (2012) and draft framework (March 2018);
  - National Planning Practice Guidance: Transport Evidence Bases in Plan Making;
  - MKC Adopted Local Plan:MK (March 2019);
  - MKC’s Parking Standards: Supplementary Planning Document (SPD, January 2016); and
  - MKC’s Local Transport Plan 3 (2011-2031).
- 3.2. AECOM consider that whilst the DfT Circular is not referred to directly within the policy review section of the document, the two forecast years that have been modelled are consistent with the Circular’s

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requirements for an opening year assessment and a review period (at the end of the Local Plan) assessment (2023 and 2031 respectively) and therefore **AECOM consider that this issue has now been resolved.**

- 3.3. AECOM note that the proposed development is now expected to be 241,540sqm instead of the original 241,209sqm stated in the original TA. The Plan: MK 2016-2031 (adopted March 2019) document identifies the land south of Milton Keynes in South Caldecotte for a minimum of 195,000sqm and therefore the proposed submission still falls within local planning policy.

**AECOM Recommendation 6.**

*That as part of any junction improvements implemented at the junction consideration is given to introducing additional measures on the A5 southbound approach to try and reduce vehicle speeds and improve driver awareness of the junction ahead.*

- 3.4. As previously stated in AECOM's TN02, the collision analysis at the A5/A4146 Kelly's Kitchen roundabout potentially suggested excessive speeds on the approach to the junction and a lack of junction awareness.
- 3.5. The revised TA analyses the PIC data at the junction (June 2012 – July 2017), which indicated that there were 20 collisions in the time frame assessed at the A5/A4146 roundabout, three of which were serious. The three serious collisions took place on different parts of the junction and occurred for different reasons, with no obvious causation pattern. It is however noted that there appears to be a number of collisions on the A5 southbound and therefore AECOM consider that the recommendation above may still be outstanding. However, the revised TA states that the majority of the collisions occurred before the most recent upgrade to the roundabout in 2014 as part of the Newton Leys development, which included signalisation of the circulatory and approach lanes, additional lighting and alterations to road markings.
- 3.6. The revised TA also indicates that the committed scheme identified to mitigate the impact of the Eaton Leys development has been subject to a Stage 1 Road Safety Audit. The scheme will be subject to Stage 2 and 3 Road Safety Audits during detailed design and implementation stages. AECOM therefore consider that further analysis of existing collision data is not required, and that the need for additional measures to try and reduce vehicle speeds and increase driver awareness on the A5 southbound approach, if required, with the implementation of the Eaton Leys mitigation scheme should be considered as part of the Stage 2 and Stage 3 RSAs. **This issue is therefore considered to be resolved.**

**AECOM Recommendation 7.**

*That if there is predicted to be a significant increase in trip numbers as a result of the proposed development at any other SRN junctions, that the Personal Injury Collision data analysis is also undertaken at these junctions.*

- 3.7. AECOM acknowledge that the A5/Kelly's Kitchen roundabout is a SRN junction and has been included in the PIC analysis. However as detailed previously in this report, it is estimated that development trips could route via other junctions on the SRN, in particular the A5 Redmoor roundabout. **It is predicted that there will be a material increase in trip numbers as a result of**

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**the proposed development at Redmoor roundabout, it is therefore recommended that a PIC analysis is undertaken at this junction.**

**AECOM Recommendation 8.**

*That a firm commitment is secured to enhancing public transport provision for the site including providing additional bus stops, accommodating these within the site if appropriate, increased bus frequency where appropriate, plus extending service durations to capture shift changeovers that are likely to feature within the warehouse operations.*

- 3.8. Limited additional details regarding bus provision are provided within the revised TA. BWB suggest that providing one additional bus to routes 11/12 or increasing the existing frequency would be sufficient. It is intended that bus services 11/12 will be extended to serve the site and depending on end occupier requirements slightly earlier and later services may also be required to service potential shift changes at 06:00 and 22:00, which would be welcomed. Whilst reductions have not been made to the trip generation within the TA to reflect an increase in sustainable transport use, it is unclear what impact the proposed additional bus would have on frequencies and therefore potential patronage. **It is recommended that further details of the proposals are provided to enable AECOM to determine whether they are likely to result in a shift away from private car use.**

**4. Assessment Years and Growth Factors**

- 4.1. BWB have identified the following assessment years for analysis within the TA:
- 2018 Base Year;
  - 2023 Opening Year; and
  - 2031 Review Year.
- 4.2. AECOM consider that the opening year identified is considered to be reasonable as the TA indicates this is when the proposed development is expected to be completed.
- 4.3. Previously BWB applied traffic growth factors from TEMPRO v7 and although AECOM considered the resulting growth rates presented by BWD to be slightly lower than those calculated by AECOM the differences were minimal and therefore AECOM considered the factors presented in the original TA to be reasonable.
- 4.4. Revised TEMPRO growth factors have been provided by SMT for 2018, 2023 and 2031 assessment years. The reason being as BWB previously utilised growth factors using TEMPro version 7.0, which was superseded by version 7.2 in March 2017. The revised growth factors provided by BWB are marginally higher than those previously agreed, which AECOM considers is acceptable.

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## 5. Conclusions

- 5.1. This Technical Note has been produced by AECOM on behalf of Highways England. The note focuses on the review of a revised Transport Assessment for the proposed employment development of B1c/B2/B8 land uses in an outline planning application in South Caldecotte, Milton Keynes.
- 5.2. AECOM previously undertook a review of an earlier Transport Assessment prepared for the site and provided some recommendations within that review. These recommendations were considered throughout the course of the revised TA review.
- 5.3. This review has raised a number of comments and recommendations, which AECOM consider should be taken forward and addressed. AECOM's recommendations regarding these concerns are highlighted by the use of bold underlined text throughout this document. Recommendations that are considered critical to the acceptability of the planning application are coloured **red**. Recommendations that should be addressed but are not critical to the acceptability of the planning application are highlighted in **amber**. Recommendations that were previously identified, which have now been satisfactorily resolved are coloured **green**.

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