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SUPPLEMENTARY INFORMATION

Planning Committee

23 August 2018

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If you need any further information about the meeting please contact Aaron Hetherington, Democratic and Elections aaron.hetherington@cherwellandsouthnorthants.gov.uk, 01295 227956

CHERWELL DISTRICT COUNCIL
PLANNING COMMITTEE

23 August 2018

WRITTEN UPDATES

Agenda Item 7
17/02534/OUT – Land North Of Bicester Avenue Garden Centre, Oxford Road, Bicester

Additional Representations

Oxfordshire County Council
An additional representation has been received from OCC in relation to transport matters. This is attached as Appendix 1. In summary, the County Council raises concerns about:

- The application being prematurely considered for approval by Planning Committee given the outstanding issues which they consider to be fundamental;
- The errors in the traffic modelling undertaken by the applicant which renders the outputs unreliable;
- The projected severe impact on the A41/Lakeview Drive junction even after mitigation;
- The applicant's lack of commitment to providing financial contributions towards rail improvements, enhancements to bus services and the South East Perimeter Road in order to promote sustainable travel and help alleviate traffic congestion along this section of the A41;
- Planning officers at CDC engaging a third party external consultant without OCC understanding the brief set for the consultants, the information available to the consultants, or providing OCC with sufficient time to respond to the findings of the consultants.

Additional Information

Planning officers instructed an external independent transport consultant to review the applicant's Transport Assessment as well as the consultation response from the County Council. An initial report from independent external consultants has now been received. A full copy of the document can be viewed online on the planning register. In summary it has reached the following conclusions:

- That further work needs to be undertaken with respect to the traffic modelling as the outputs are not currently thought to be robust enough to enable proper consideration of the impacts on the local road network;
- Subject to further modelling, if the impacts on the A41/Lakeview Drive are not shown to worsen beyond that currently projected in the applicant's Transport Assessment, then the impacts on the junction are tolerable with the mitigation scheme proposed;
- Notwithstanding the highway mitigation works proposed by the applicant, the proposals would contribute towards cumulative severe congestion along this section of the A41. This can only be alleviated by a strategic highway scheme rather than local piecemeal improvements to mitigate individual development proposals. A contribution should therefore be made towards a strategic highway scheme such as the South East Perimeter Road in line with Policy Bicester 4 and the Developer Contributions SPD 2018;

- A Stage 1 road safety audit is needed of the proposals for the Middleton Stoney Road/Oxford Road/Kings End mini-roundabout junction;
- The site is not easily accessible to the existing bus stops on the A41 so enhanced public transport provision should be considered in line with OCC's comments;
- The timing for the completion of the necessary off-site highway works should be informed by the traffic modelling and not the arbitrary 45,000sqm of development suggested by the applicant in the Transport Assessment.

Additional Representations

Oxfordshire County Council
A further additional representation has been received from OCC in response to the independent transport consultant report CDC instructed. This is attached as Appendix 2. In summary, OCC wish to highlight to members of the following:

> OCC have reviewed the findings of the consultant's report. The findings are generally supportive of OCC's recommendation that Members defer this application until such time that evidence is available to determine whether or not it is possible to overcome the highway objection.
>
> Whilst the principle of this development is supported, OCC continue to object on highway grounds as the Transport Assessment does not adequately assess the impact of the development or demonstrate that it can be adequately mitigated.
>
> In particular, OCC wish to draw attention to the fact that the consultant's review:
>
> 1) recommends that amendments are made to the applicant's modelling in line with OCC's response; and
>
> 2) states that there is a very sound argument in favour of S106 developer contributions to fund the transport infrastructure required to support Local Plan growth.
>
> Whilst the consultant does not believe the suggested amendments to the modelling will fundamentally change the results, no justification is provided for this statement and there is no estimation of how inaccurate the results as submitted might be.

Officer Comment
Both the applicant and OCC have been sent a copy of the external transport consultant's report albeit less than two days before the Planning Committee meeting. It is likely that both parties would wish to challenge or make comments on the findings of the external consultants, with OCC already doing so as referred to above.

Officers are not necessarily suggesting that Members prefer the findings from the external transport consultants over that of OCC. What is clear to officers however is that there is a genuine basis for concern about the current proposals in terms of congestion along the A41 and the junction providing access to the allocated Bicester 4 site. Officers remain confident that there are solutions available to the majority of these highway concerns though this requires further work and discussions with the applicant and OCC as part of efforts to resolve them. OCC's concerns are noted and whilst officers accept that access and transport matters are important considerations, there is no reason that Planning Committee should not delegate responsibility to officers to seek solutions to the issues identified as detailed in the committee report.

Change to Recommendation
None

Agenda Item 8
18/00803/OUT – Begbroke Science Park, Begbroke Hill, Begbroke, Kidlington, OX5 1PF

Additional representation received

Begbroke Parish Council

- The committee had no objections as it was contained within the existing boundaries. They wanted to keep the building height uniform and not permit the externals elevations to be too visible but be in keeping with the landscape. The committee also thought it worth trying to obtain section 106 funding for our proposed crossing.

Change to recommendation
None

Agenda Item 9
18/00220/F – Land North Of Milton Road, Adderbury, Oxfordshire

Officer Update
A condition has been omitted that was necessary and, in respect of the drainage condition, this will be split to phase the condition relating to pitch drainage and then drainage for the other elements of the development. There is therefore a change to the recommendation to add two conditions to the overall list:

- A scheme for the drainage arrangements for the pitch area
- Except for the means of access, the retention of the southern hedgerow boundary.

Agenda Item 10
18/01157/F – Kelberg Limited, Northampton Road, Weston On The Green, Bicester, OX25 3TH

No updates

Agenda Item 11
18/01098/F – Land North West Of Fabis House, Rattlecombe Road, Shenington

No updates

Agenda Item 12
18/01114/F – Land North West Of Fabis House, Rattlecombe Road, Shenington

Additional information
Amended Plans have been received

Change to recommendation
Recommendation is changed to deferral of the application following the submission of amended plans.

Agenda Item 13
18/01115/LB – Land North West Of Fabis House, Rattlecombe Road, Shenington

Additional information
Amended Plans have been received

Change to recommendation
Recommendation is changed to deferral of the application following the submission of amended plans.

Agenda Item 14
18/00277/DISC – The Hill, Dover Avenue, Banbury, OX16 0JE

No updates

Agenda Item 15
18/00995/F – Shopmobility, Unit A4, Pioneer Square, Bure Place, Bicester, OX26 6FA

No updates

Agenda Item 16
18/01101/F – Land Adjacent To The South Multi-storey Car Park, Castle Quay South Multi Storey Car Park, Castle Street, Banbury

No updates

UPDATE TO OXFORDSHIRE COUNTY COUNCIL'S RESPONSE TO CONSULTATION ON THE FOLLOWING DEVELOPMENT PROPOSAL

District: Cherwell
Application No: 17/02534/OUT-3
Proposal: OUTLINE - The construction of a business park of up to 60,000 sq.m (GEA) of flexible Class B1(a) office / Class B1(b) research & development floorspace; parking for up to 2,000 cars; and associated highways, infrastructure and earthworks
Location: Land North Of Bicester Avenue, Garden Centre, Oxford Road, Bicester.

Response date: 21st August 2018

This update details the findings of an independent assessment of the applicant's transport modelling (see full report at Appendix 1), responds to points made in a letter from the applicant to CDC dated 8th August 2018, and responds to points raised in CDC's Planning Committee report. All points in OCC's previous responses continue to apply.

OCC continue to object on highway grounds as the Transport Assessment does not adequately assess the impact of the development or demonstrate that it can be adequately mitigated.

In order to make an informed decision, it is recommended that Members defer this application until such time that evidence is available to determine whether or not it is possible to overcome the highway objection.

In summary:

<u>Transport Modelling</u>

- Independent assessment of the applicant's LinSig signalised junction modelling has concluded that there are a number of inaccuracies that *"create an unacceptably high margin of error, meaning that the results could not be relied upon"*. This indicates that the development could have a greater impact on the highway network than originally envisaged.

- With the highway mitigation proposed, the Lakeview Drive junction provides insufficient capacity for the whole development. It does not appear possible to increase the capacity of this junction within the highway boundary any further than already proposed. Given that access is not a reserved matter this needs to be resolved before a decision can be made by CDC's planning committee.

- To provide sufficient capacity for the entire quantum of development proposed, it is likely that vehicles would need to be diverted away from the A41 by a scheme such as the South East Perimeter Road.

- To establish how much development could be carried out at the site without causing a severe impact on the highway network (prior to the SEPR or scheme of similar benefit being in place), errors with the modelling would need to be corrected and further tests would be needed.

Points raised by the applicant in letter to CDC dated 8th August 2018

- The applicant's comments primarily relate to S106 contributions. OCC reiterate that, while there is no agreement on the contributions, the reason for the highways objection is because **the Transport Assessment does not adequately assess the impact of the development or demonstrate that it can be adequately mitigated.**

- The main concern raised by the applicant is viability. If the above objection relating to highway impact can be overcome, S106 contributions can be negotiated with the aid of an open book viability assessment if necessary post any committee resolution to grant permission.

- Under 'Infrastructure Needs', bullet point 2 of Bicester Policy 4 explicitly requires: "Contributions to improvements to the surrounding local and strategic road networks." To not collect a strategic transport contribution from this development would undermine the Local Plan and set an unacceptable precedent.

Points raised in CDC's Planning Committee Report

- It is stated at paragraph 8.14 that OCC's response was only received only a few days prior to the deadline for writing reports. To clarify, our response of 7th August 2018 was a revised response to the amended transport assessment submitted by the applicant. OCC's original response was submitted 27th February 2018.

- OCC understand that CDC have appointed an independent transport consultant to review this application. The remit of the consultant is unclear. If any further evidence is provided, OCC respectfully request adequate time to review this. Members are urged not to accept any conclusions of the independent planning consultant without OCC reviewing and responding to them first. It is particularly concerning that at paragraph 8.15 of the committee report it is suggested that CDC will be using the independent transport consultant's advice rather than the Local Highway Authority's.

- OCC have highlighted in previous responses that the applicant's transport modelling assumes a higher junction capacity than the accepted industry standard, thus underestimating the transport impact of the development. Paragraph 8.9 states that third party advice has been sought on this, specifically on the appropriate threshold above which signalised junctions stop being considered to operate within capacity. Further technical detail on this is provided on pages 7 and 8 below. Notwithstanding this, the fact remains that as currently modelled the results already show that the mitigation scheme is not adequate in terms of the resultant queueing.

- Paragraph 8.6 discusses the access to the development, but only considers the off-highway roundabout junctions on Lakeview Drive from which the Office Park would take access. This interpretation of 'access' is also reflected in the conclusion at 8.16. Access onto the highway network is in fact at the junction of Lakeview Drive and the A41, and, as highlighted in our response, the Highway Authority considers the impact of the development on queueing at this junction to be severe, and that it is very uncertain as to whether there could be a suitable mitigation scheme that could be delivered within the highway boundary. As stated in paragraph 8.6, the means of access is to be considered as part of this application, and the principle of the development depends upon the access being acceptable.

- Paragraph 8.9 states that *"OCC considers the… modelling within the TA to be robust."* However, as stated in this update, we have found significant inadequacies with the LinSig modelling which suggest that the results could underestimate the traffic impact.

Detailed comments are provided below.

Officer's Name: David Flavin
Officer's Title: Senior Planning Officer
Date: 21st August 2018

Transport Schedule

This update details the findings of an independent assessment of the applicant's transport modelling, responds to points made in a letter from the applicant to CDC dated 8th August 2018, and responds to points raised in CDC's Planning Committee report. All points in OCC's previous responses continue to apply.

Recommendation:

Objection for the following reasons:

- The Transport Assessment does not adequately assess the impact of the development.
- As predicted in the Transport Assessment, the proposed development would have a detrimental impact on the existing network which the proposed mitigation would not adequately mitigate. The proposals are therefore contrary to Local Plan Policy (including Policy Bicester 4: Bicester Business Park, and Policy SLE 4: Improved Transport and Connections) and the Local Transport Plan.

Transport Modelling

Independent assessment of A41/Oxford Road LinSig modelling (see Green Signals Consulting Ltd report at Appendix 1) which was sent to the applicant 17/08/18, has highlighted the following issues:

- The services entry arm (from the Esso filling station and Burger King) on the Esso Junction is a give way lane represented as J2:4/1. This arm has been incorrectly configured as having no opposing lanes – which gives an unrealistically high capacity for this approach

- Matrix estimation indicates that not all turning counts have been entered. Looking at the PM demand flow for the same approach arm (services entry arm of Esso Roundabout), only 98 pcu's were modelled instead of 127pcu's. It is thought that if matrix estimation is being used, this should be completed.

- Lane widths used in the model are incorrect. Where it has been possible to measure lane widths from scale plans, the lane widths used in the calculation of saturation flow appear to be consistently wider than the measured lane widths. This probably won't make much difference to the results (the relative increase in capacity should be the same), as it is incorrect in both the base and proposed models. This however will result in an over optimistic calculation of saturation flows in both models.

- Saturation flows have shown to be generally higher than would normally be. This causes traffic capacity to be over-estimated. Where there is only one lane serving any given destination, the lane should be treated as a nearside lane in the saturation flow calculations. This is because slow vehicles will delay the entire route flow, unlike multiple lane / route choice approaches, where faster vehicles are able to overtake in the offside lane.

- The Oxford Road northbound stream (exit arm) of Pingle Drive/Oxford Road junction (presented as Arm J1:4 in the model) is shown without a pedestrian crossing across it, despite a signalled crossing across southbound. Presently, a pedestrian crossing goes across both the northbound and southbound traffic streams. This modelling inaccuracy is likely to create an artificially higher saturation across the junction.

- Use of lane connectors to allow weaving will allow overly optimistic distribution of traffic flows and allows inappropriate route selection. If/where lanes are not immediately available at the exit of the previous junction, intermediate exit lane lanes may be required to accurately model lane and route choices. Alternatively, route flows may need to be manually set to manage traffic flows on weaving connectors.

- For Controller 1, no controller specification or design has been availed to enable us to make a modest check.

The report goes on to conclude that although the modelling results look reasonable, the errors create an unacceptably high margin of error, meaning that the results cannot be relied upon.

Notwithstanding the above points, it is clear that with the highway mitigation proposed, the Lakeview Drive junction provides insufficient capacity for the whole 60,000 m^2 development. Our response of 7th August 2018 highlighted the unacceptable queueing on Lakeview Drive. Further, it does not appear possible to increase the capacity of this junction within the highway boundary any further than already proposed. Whilst this has not been put directly to the applicant, understanding that the mitigation is not sufficient to meet the Highway Authority's concerns, one would have expected the applicant to come up with an amended or different scheme to provide additional capacity, if this were feasible. To provide sufficient capacity for the entire quantum of development proposed, it is likely that vehicles would need to be diverted away from the A41 by a scheme such as the South East Perimeter Road. To establish how much development could be carried out at the site without causing a severe impact on the highway network (prior to the SEPR or scheme of similar benefit being in place), errors with the modelling would need to be corrected and further tests carried out.

<u>Points raised by the applicant in letter to CDC dated 8th August 2018</u>

Viability

The main concern raised by the applicant is viability. If the above objection relating to highway impact can be overcome, S106 contributions can be negotiated with the aid of an open book viability assessment if necessary post any committee resolution to grant permission. In the meantime, OCC wish to clarify the following points:

Request for contributions

The applicant suggests that OCC's response of 7th August 2018 raised requests for highways and public transport contributions for the first time. This is incorrect. OCC's response of 27th February 2018 stated that *"any new Section 106 or Deed of Variation agreed for this development site will need to maintain the remaining contributions in the existing S106 associated with permission 07/01106/OUT (as varied in November 2013) proportionately to the scale of new development"*. The amounts requested in the 7th August 2018 response were calculated using the formula used in the Cherwell Developer Contributions Supplementary Planning Document which was adopted at the end of February 2018.

South East Perimeter Road or scheme of similar benefit.

Under *'Infrastructure Needs'*, bullet point 2 of Bicester Policy 4 explicitly requires: *"Contributions to improvements to the surrounding local and strategic road networks."* To not collect a strategic transport contribution from this development would undermine the Local Plan and set an unacceptable precedent. For the avoidance of doubt, OCC would seek to collect from this development towards this scheme. As highlighted above, unless such a scheme is delivered it is unlikely that this development could be fully implemented without having a severe impact on the highway network. The SEPR is a requirement of the local plan and is outlined in LTP4. The scheme has some funding secured and has a preferred route option. The contribution figure of £2,965,186 was calculated using the newly adopted Cherwell DC Contributions SPD. The SEPR is currently on hold pending a decision on the Oxford-Cambridge Expressway which is why the contribution request states: *"or scheme of similar benefit"*.

Robust assessment of the highway network local to the site

As set out above and in our previous response, OCC do not agree that a robust highways assessment has been carried out. The capacity thresholds set out in the TA are not appropriate, there are further errors with the modelling and there is insufficient mitigation proposed. This is particularly important as the junction that provides access to Bicester 4 is one of those causing most concern. Given that access is not a reserved matter this needs to be resolved before a decision can be made by CDC's planning committee.

Public Transport Contributions

As set out in OCC's previous response:

- Bicester Policy 4 requires that "good accessibility to public transport services should be provided for, including the accommodation of new bus stops to link the development to the wider town".
- The walking distance from the site to the northbound bus stop on the A41 is not only in excess of 400 metres from much of the site, but it also requires both carriageways of the A41 to be crossed on foot. While this might be acceptable for 'able bodied' people, not providing a bus service within the recommended walking distance would make employment less accessible for people with walking difficulties. In addition, the arrival times of buses on the main road service from Oxford cannot be predicted with any degree of reliability due to variable traffic congestion.
- The Council wishes to encourage the use of modes other than the car for journeys to work in the Bicester area. The provision of an on-site bus service is seen as being a much more attractive proposition than the long walk, across a busy dual carriageway road to a bus stop with a highly variable bus service. The provision of a guaranteed on-site bus service at journey-to-work times would provide employees with some certainty of departure times.

Strategic Rail Infrastructure

As set out in OCC's previous response:

The extra travel demands arising from this proposal in common with other proposals has led and continues to lead towards the delivery of enhanced rail infrastructure provision, including the East West Rail provision. The extant Section 106 planning obligation for previous proposals at this site made provision to support the enhanced rail infrastructure. Part of the enhancements have been brought forward in advance of individual development growth and as such will be ready to help accommodate the extra transport demands from initial

development occupation. The Local Plan Policy SLE 1 recognises the importance of public transport, such as rail infrastructure in supporting employment development in areas of the district, including Bicester. Policy SLE 4 also identifies that new development will be required to provide contributions towards transport impacts of development and recognises that development should facilitate the use of sustainable modes of transport to make the fullest possible use of public transport etc. OCC's local commitment to contribute to the East West Rail improvements includes a requirement for £11.06m to deliver the improvements. Using the formula the newly adopted Cherwell DC Contributions SPD, the appropriate proportion of that requirement attributable to this development proposal is £670,532.

Points raised in CDC's Planning Committee Report

- It is disappointing that OCC's responses of 27th February 2018 and 7th August 2018 have not been briefly summarised under section 6, 'Response to Consultation', or listed as an objection. Instead it is attached as an Appendix. We would like to clarify that, where our latest response is stated as having been received only a few days prior to the deadline for writing reports (paragraph 8.14), this was a revised response to an amendment from the applicant.

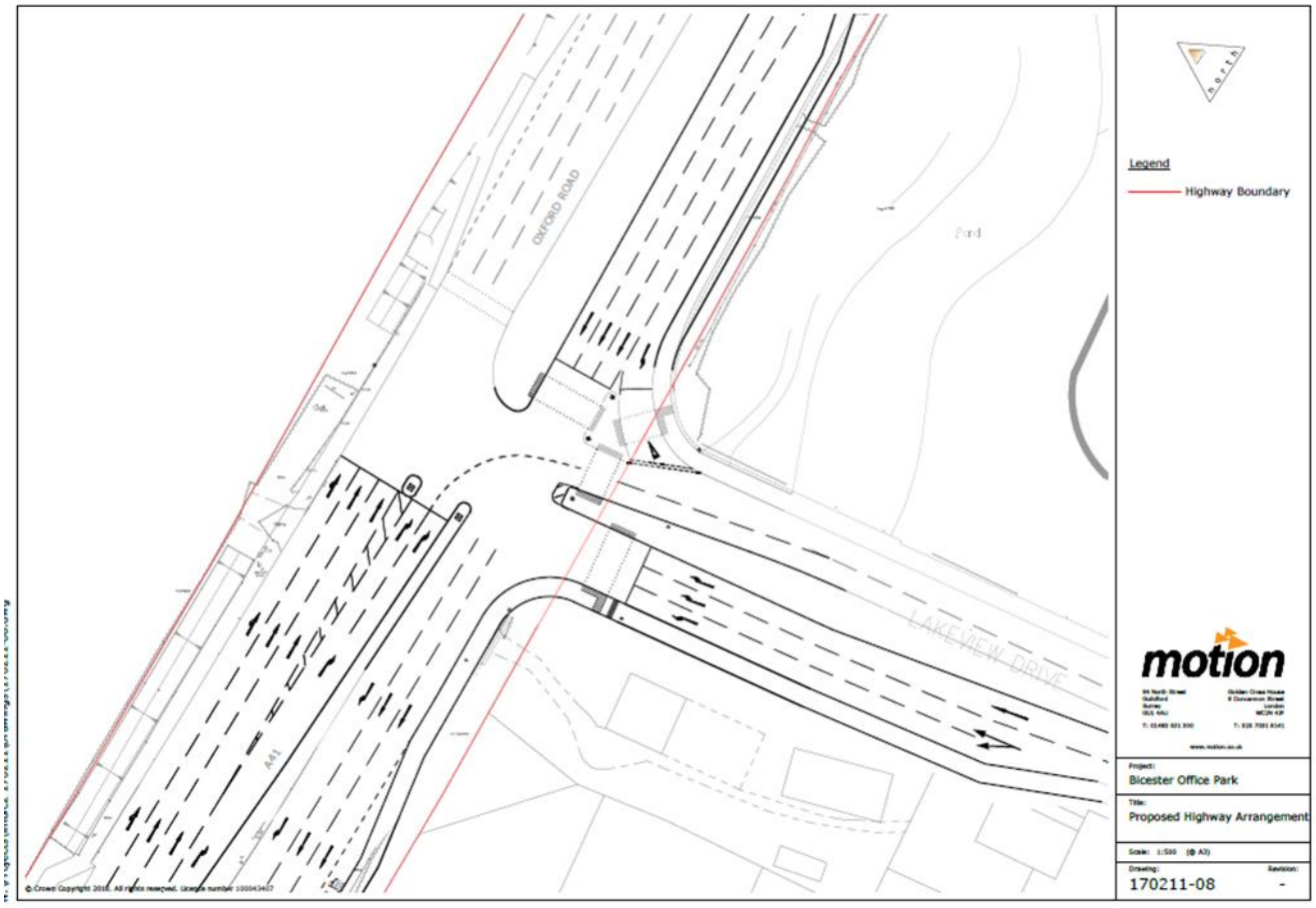
- OCC understand that CDC have appointed an independent transport consultant to review this application. The remit of the consultant is unclear. If any further evidence is provided, OCC respectfully request adequate time to review this. Members are urged not to accept any conclusions of the independent planning consultant without OCC reviewing and responding to them first. It is particularly concerning that at paragraph 8.15 of the committee report it is stated that "*Officers therefore cannot recommend the application for approval until such a time as OCC's concerns with regards to the impact on existing junctions are resolved* ***unless the independent transport consultants conclude otherwise"*** [emphasis added]. This suggests that CDC will be using the independent transport consultant's advice rather than the Local Highway Authority's.

- Paragraph 8.9 states that third party advice has been sought on the appropriate threshold Degree of Saturation above which signalised junctions stop being considered to operate within capacity. It is the County Council's firm belief that in the transport industry it is widely accepted that where the Degree of Saturation (DoS) of a link in a LinSig model is shown to operate in excess of 90% DoS, that link is operating over capacity. The following extract from the TfL document "Traffic modelling Guidelines" supports this comment:

> 2.6.1.4 Junction Performance
>
> It is useful to be aware of the relationship between traffic delay and DoS in order to best optimise junction performance during proposal development. The relationship illustrated within Figure 8 strengthens the considerations outlined in Part A, which highlight the role stable network performance can play in maintaining journey time reliability. Engineers should be mindful that delay begins to increase exponentially above approximately 85% DoS. At junctions operating close to zero Practical Reserve Capacity (PRC), corresponding to approximately 90% DoS, small reductions in capacity can result in a significant increase in delay. For this reason a DoS of 90% represents an upper limit of practical capacity for signalised junctions. Unsignalised junctions typically have a lower practical capacity limit, with DoS in the range 80-85%. Junction capacity relationships are important when designing schemes in order to ensure that new proposals perform capably within the existing network.

Notwithstanding this, the LinSig modelling results for queuing show that the mitigation scheme is not adequate in terms of the resultant queueing. In other words, OCC is not objecting on the basis of an obscure technicality, but on predicted queueing, as paragraph 8.10 goes on to explain.

- Paragraph 8.6 discusses the access to the development, but only considers the <u>off-highway</u> roundabout junctions on Lakeview Drive from which the Office Park would take access. This interpretation of 'access' is also reflected in the conclusion at 8.16. Access onto the highway network is in fact at the junction of Lakeview Drive and the A41, and, as highlighted in our response, the Highway Authority considers the impact of the development on queueing at this junction to be severe, and that it is very uncertain as to whether there could be a suitable mitigation scheme that could be delivered within the highway boundary. As stated in paragraph 8.6, the means of access is to be considered as part of this application, and the principle of the development depends upon the access being acceptable. The following plan is copied below to give members an idea of the proximity of the proposed junction to the highway boundary:



- Paragraph 8.9 states that *"OCC considers the… modelling within the TA to be robust."* However, as stated in this update, we have found significant inadequacies with the LinSig modelling which suggest that the results could underestimate the traffic impact.

Officer's Name: Rashid Bbosa / Joy White
Officer's Title: Transport Engineer/ Principal Transport Planner
Date: 20 August 2018

APPENDIX 1:

A41 - Oxford Road Bicester Linsig Report

A41 - Oxford Road

Bicester

Linsig Report

August 2018

Version 2

Green Signals Consulting Ltd— The Old Brewery, 47 Church Street, Great Baddow, Essex CM2 7JA

T: 01245 472996 **Email**: info@greensignals.co.uk

Contents

1. Introduction and Scope

Green Signals Consulting Ltd have been engaged by Oxfordshire County Council to assess two Linsig models of the A41 Oxford Road network in Bicester, covering four traffic signal junctions.

In total, two models were provided, a Base and Proposed model, along with a Transport Assessment for a development, and the controller schedules for three of the existing junctions.

The scope of works was to assess the accuracy and suitability of the Linsig Models, compared against the existing sites and improvements outlined in the Transport Assessment. No other checking of the Transport Assessment has been undertaken.

Limited drawings of the existing sites were received and no controller schedule for the most northerly junction was received. Google Street View and aerial views were used to compare the plans and designs in the Transport Assessment and Linsig model, however the Google Street Views were last updated during a period of construction at these junctions. Two plans, one showing the proposed works along the route including the Southern-most junction and Lakeview Drive, and one drawing showing further proposed changes to Lakeview Drive have been received and reviewed. These relate to the Base Model and Proposed model respectively.

No site visits have been undertaken, so where there is uncertainty, this has been documented.

2. Results of Assessment of Linsig

Both models are similar, other than the changes highlighted in the Transport Assessment. There are a number of problems with the modelling, most of which affects both models. Both have two significant warnings in the Linsig Error View:

- Give Way Lane J2:4/1 has no opposing lanes specified. This is incorrectly configured and will affect the result, giving an unrealistically high capacity for this approach. This should be corrected.
- Matrix Estimation indicates that not all turning counts have been entered. If Matrix Estimation is being used, this should be completed. Otherwise, it would be prudent to remove the remaining data to avoid confusion or mistakes.

There are a number of other warnings relating to sliver queues, however these have been checked and do not pose a significant problem.

Where it has been possible to measure lane widths from scale plans, the lane widths used in the calculation of saturation flow appear to be consistently wider than the measured lane widths. Although at the scale shown in some plans, it is hard to be accurate, the difference appears to be greater than 0.5m on almost all Oxford Road lanes. This will result in an over optimistic calculation of saturation flows in both models.

Use of lane connectors to allow weaving will allow overly optimistic distribution of traffic flows and allows inappropriate route selection. If / where lanes are not immediately available at the exit of the previous junction, intermediate exit lane lanes may be required to accurately model lane and route choices. Alternatively, route flows may need to be manually set to manage traffic flows on weaving connectors. If this is done, the weaving flows should ideally be based on observed figures.

Lane J2:11/1 only links to Lane J3:2/1. This may be correct, however it limits traffic assignment in Lane J2:11/1. If this is accurate, the difference between the Base and Model appear correct; if this is not accurate, then some of the benefit of the mitigation is artificial.

Mean cruise times on many link connectors seem higher than would normally be expected, particularly short link connectors. This could result in a distortion of progression through the network, and making the timings unreliable for CLF in particular. This should not have an impact on overall capacity results, but may make queue length and delay values less accurate.

Saturation flows are generally higher than would normally be expected. In particular, where there is only one lane serving any given destination, the lane should be treated as a nearside lane in the saturation flow calculations. This is because slow vehicles will delay the entire route flow, unlike multiple lane / route choice approaches, where faster vehicles are able to overtake in the offside lane.

Arm J1:4 Oxford Road (nb) has no pedestrian crossing across it, despite signalled crossing across southbound. This may be accurate, but it would be unusual.

Controller Specific Comments

Controller 1

No controller specification or design is available to check the model against.

Controller 2

As highlighted in the error warning, J2:4/1 is configured as give way, but opposing lanes have not been entered for the movements to J1:1/1 or J1:1/4.

Two phase delays have not been included in the Linsig model.

Controller 4

Phases I and J do not match controller configuration, although they are not used. The controller schedule shows them as dummy phases for all red control, but shown in Linsig as left turn filters.

There are some other minor inconsistencies in staging between controller specification and Linsig, regarding Phase F in Stage 1 and 2, however the sequence used is appropriate.

3. Conclusions and Recommendations

Both models appear largely accurate, however there are a small number of errors that will have an effect of the overall results. Although the results look reasonable, the errors create an unacceptably high margin of error, meaning that the results could not be relied upon.

The geometric data within the model, such as lane widths, has only been checked against the proposed works drawings for the Base and Proposed mitigation, to the extents of those drawings. Neither has the controller operation of the northernmost junction within the network been checked. While the phases and stages used look reasonable, we cannot guarantee that the Base Model fairly represents the existing sites.

We would recommend that the errors in the model be corrected and the modelling resubmitted.

OCC RESPONSE TO INDEPENDENT TRANSPORT CONSULTANT'S REVIEW OF OCC'S CONSULTATION RESPONSE TO APPLICATION 17/02534/OUT

District: Cherwell
Application No: -17/02534/OUT
Proposal: OUTLINE - The construction of a business park of up to 60,000 sq.m (GEA) of flexible Class B1(a) office / Class B1(b) research & development floorspace; parking for up to 2,000 cars; and associated highways, infrastructure and earthworks
Location: Land North Of Bicester Avenue, Garden Centre, Oxford Road, Bicester.

Response date: 22nd August 2018

This update responds to the independent review of OCC's consultation response of 7th August 2018[1] commissioned by CDC.

Detailed technical comments are provided at Appendix 1. OCC respectfully request that the following paragraphs in bold are read out to planning committee on Thursday 23rd August:

OCC have reviewed the findings of the consultant's report. The findings are generally supportive of OCC's recommendation that Members defer this application until such time that evidence is available to determine whether or not it is possible to overcome the highway objection.

Whilst the principle of this development is supported, OCC continue to object on highway grounds as the Transport Assessment does not adequately assess the impact of the development or demonstrate that it can be adequately mitigated.

In particular, OCC wish to draw attention to the fact that the consultant's review:

1) **recommends that amendments are made to the applicant's modelling in line with OCC's response (para 3.3); and**

2) **states that there is a very sound argument in favour of S106 developer contributions to fund the transport infrastructure required to support Local Plan growth (para 5.1a).**

Whilst the consultant does not believe the suggested amendments to the modelling will fundamentally change the results, no justification is provided for this statement, and there is no estimation of how inaccurate the results as submitted might be.

Officer's Name: David Flavin
Officer's Title: Senior Planning Officer
Date: 22nd August 2018

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[1] *Review of County Council's Response to Consultation on Planning Application No. 17/02534/OUT Relating to Land North of Bicester Avenue, Garden Centre, Oxford Road, Bicester for Cherwell District Council* (Edwards & Edwards Consultancy Ltd, 20th August 2018)

Appendix 1:

Response to Technical Points Raised in Independent Consultant's Review of OCC's Consultation Response of 7th August 2018

Paragraph no.	OCC response
3.3	Report says that OCC comments on the inadequacies of the LinSig are valid and recommends that Motion should review the input and produce updated outputs. However, report says *'I do not however believe that these updated outputs will fundamentally change the conclusions I reach in the remainder of this report.'* No justification is provided for this statement, and there is no estimation of how inaccurate the results might be due to the incorrect LinSig inputs.
3.5	Correctly states that the junctions operate under Microprocessor Optimised Vehicle Actuation (MOVA), and says that this (my italics) '*may* have a positive effect on the operation of the junctions, *potentially* reducing the underutilised green time at the junctions.' 3.6 goes on to state, correctly, that the LinSig software is not able to model the benefit of MOVA as it assumes that signal times remain fixed throughout the assessment period. It goes on to state that 'In reality, junction operation *may* be better due to the adaptive MOVA control already in place'. I would accept this, otherwise there would be no benefit in installing MOVA at junctions. However, there is no evidence presented here, and none that I am aware of, that conclusively demonstrates how much additional capacity can be gained from MOVA. Hence the cautious wording and use of 'may'. It is perfectly possible that any benefits from MOVA are easily outweighed by the modelling inaccuracies mentioned above at 3.3.
3.7	Para. 3.7 focuses on the 90% capacity threshold Degree of Saturation, and advises that consideration should also be given to predicted queues and delays. OCC's response does indeed comment on the queues. Interestingly the tables do not summarise the delay, which is significant on several arms, but particularly on Lakeview Drive where the delays with mitigation in the pm peak are 72 seconds average per PCU. The tables also do not include the Pioneer Way junction (labelled as Saxon Fields), where delays reach 85 seconds average per PCU in the pm peak, with queues of over 40 vehicles.)
3.10	I disagree that the proposed mitigation brings about an improvement on the entire LinSig network (I am assuming this means compared with the 'with development' scenario without mitigation). In fact the mitigation scheme increases the degree of saturation slightly at the Pingle Drive junction, and at Pioneer Way in the pm peak.
3.13	a) It is standard practice that LinSig analysis is for am and pm peak hours only. This does not detract from the severity of the impact. This is the critical period on the network which is used to assess the congestion impact of any development. In fact, the peak could spread and impacts approaching the level of the peak impact could be felt for a much longer period. b) The blocking in the base scenario is acknowledged, but this is a mean maximum queue which varies over the peak, and adding 21 more vehicles would put the back of the queue on average 27 as opposed to 6 vehicles beyond the roundabout, which would mean fewer incidences when the queue would clear or be sufficiently moving to allow vehicles to exit Tescos.

	c) LinSig does not take account of the benefits of MOVA – this is acknowledged, but see above, the benefits cannot be quantified and may well be outweighed by inaccuracies in the modelling. d) It is very difficult to prove or disprove whether cars queueing within the car park to exit would sufficiently reduce access to car parking spaces to cause a queue on entry to the car park. The author says he doubts whether this would occur, but neither of us can prove it one way or the other. However, I firmly believe it is a significant risk. Many of us will have witnessed queueing to get into a supermarket car park at peak times when the aisles are blocked by cars waiting to exit. In this situation there is only capacity for 15 cars to back up from the Tesco roundabout before the queue backs up to the A41, blocking exits and severely affecting this complex series of junctions in close proximity. The McDonalds drive through could also increase this risk. e) The argument that Lakeview Drive is private and therefore this is not a matter for the highway authority is completely spurious. It is an arm of a junction that the highway authority maintains and manages, it is publicly accessible and provides the only access route to key local services.
3.14	b) This supports our argument for not accepting highway schemes where the predicted DoS exceeds 90%. d) To clarify, the unsafe manoeuvres that OCC said may occur, would be drivers proceeding just after the signal has turned to red, out of impatience and not wanting to wait through another cycle, having already experienced significant delay in the queue. However, I accept that this is unsubstantiated by hard evidence.
3.15	It is noted that the author considers that the LinSig models must be updated to validate his views about the proposed mitigation being acceptable. This supports the highway authority view that the item should be deferred to a later date.
3.17	OCC adopts the practice of treating RFC values over 0.85 as being above theoretical threshold for capacities at roundabouts. This is an industry standard, based on the fact that delay begins to increase exponentially above this level.
3.23	The author considers that Motion should have provided a rationale for modelling the Middleton Stoney Rd/Oxford Rd junction as a conventional rather than a mini roundabout, and supports OCC's objection, saying that it should be modelled as a mini roundabout also. This supports the highway authority view that the item should be deferred to a later date.
3.24	This suggests that the mitigation scheme cannot be confirmed to be deliverable at this stage, and strongly urges a Stage 1 RSA to be completed for the junction. I am not aware that one has been carried out. This is another reason for deferring consideration to a later date.
3.25-3.29	We welcome the support for our justification of the strategic highway contribution towards the SEPR.
3.30	The report confirms that the stops on the A41 are not easily accessible, and that enhanced public transport should be considered. This would appear to support OCC's request for a contribution towards bus services. I confirm that we would not anticipate any reluctance on the part of a bus operator to use Lakeview Drive. In many cases buses operate along private roads, for example Milton Park.
3.31	I note that the report also supports the request for a contribution towards monitoring the travel plan.

4.1	I note that the report supports OCC's position on the timing of the highway works, in that it is not justifiable for the trigger to be 45000 sqm, and that in the absence of further detail, the works should be required prior to first occupation.

Officer's Name: Joy White
Officer's Title: Principal Transport Planner
Date: 22nd August 2018