Cambridge Research Park Waterbeach

S/4615/18FL

TRANSPORTATION COMMENTS

REF: **1689** **CASE OFFICER:** **Aaron Sands**

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DATE: **12th February 2020**

HEADLINE

No Objection <u>subject to Mitigation Package:</u> Sufficient detail has been presented to make a sound assessment. The development is able to proceed on the basis of a capped first phase of up to 8,400sqm of B1a followed by a monitor and manage approach.

Mitigation Required: The following obligations/conditions are <u>required to make the development acceptable in planning terms</u>:

Relating to Phase 1:

- Minibus Service: The provision of a bus service in perpetuity that enables the required sustainable mode share. Full details of this service to be agreed with the LPA / County Council as a planning condition.
- Direct delivery of a cycle connection to CRP (possibility of a fall-back contribution to CCC of £170,000)
- Car parking to be determined with each reserved matters (condition)
- Monitoring of trips into and out of CRP
- Vehicle Trip Cap for phase 1
- Hold on development after phase 1
- Travel Plan and associated monitoring relating to phase 1 and the wider development

Relating to the Masterplan:

- Make a contribution of £380,000 to strategic A10 transport improvements.
- The development should not proceed beyond phase 1 without (i) a transport assessment for future phases, including detail of how the above financial contribution will be spent, and (ii) approval of CCC and the LPA of said TA.
- Car parking to be determined with each reserved matters (condition)
- Travel Plan and associated monitoring

Proposal Description:– First Phase of 8,400sqm of B1a agreed	
Study Area: Agreed	
Traffic Data: Surveys agreed	
Trip Generation: Agreed for phase 1	
Distribution and Assignment: Agreed for phase 1	
Assessment Scenarios and Traffic Growth: Agreed for phase 1	
Junction Modelling: Junction models agreed of the Traffic Modelling report 30th October 2019	

Background

These comments concern the Traffic Modelling Report dated 30th October, Technical Response dated 20th January 2020 and additional information supplied by the applicant. The application seeks permission for 28,000sqm of development, of which 11,130sqm of B1(a)/B1(b) land use, 16,450sqm of B1(a)/B1(b)/B2/B8 land use and 420sqm of A1/A3 land use.

Currently there is 31,810sqm of occupied floorspace on Cambridge Research Park with a further 9,859sqm of B1 that is built but not occupied. Once the 2018 masterplan is implemented, the site would have a total development area of 69,210sqm. This application is similar to a previously approved application from 2012.

Due to the lack of capacity on the A10, and the lack of committed strategic transport investment on the A10 corridor, CCC is not able to support the full quantum of the application. However, CCC does consider that a small early phase may be possible (on the basis that such a phase fully mitigates its impact). Further phases would then be subject a monitor and manage approach.

Walking and Cycling Routes

Comment 1 There are currently no walking and cycling routes to and from CRP.

Local Public Transport Services

Comment 2 There is only one no. 9 bus in the AM peak and 2 in the PM peak at present. The applicant has recently started a minibus service which runs between CRP and Cambridge North Station. The minibus provides four services between 07:45 and 10:00, three services between 12:00 and 13:30 and five services between 15:30 and 18:30. The service presently carries on average 27 people in the AM peak and 31 people in the PM peak, equating to 7% and 8% of all existing trips to CRP respectively. **The applicant is to add a second bus which will accommodate additional public transport trips associated with the proposed development.** To avoid severe impacts of development the applicant has indicated that 20 additional peak hour bus trips would be required.

Car and Cycle Parking Standards

Comment 3 The car parking standards should only be agreed at the time of each reserved matters submission, informed by the Travel Plan and opportunities to drive sustainability. A generic provision of 1 space per 30sqm for B1 should be discouraged by SCDC as this may well not be required in the future.

Comment 4 Cycle parking is to be provided to the SCDC standards and is recommended to be agreed. This will encourage cycle use once the site is connected to the wider cycle network.

Baseline Flows and Trip Rate

Comment 5 The proposed development flows have been derived from the B1a trip rates agreed with CCC within the email dated 23rd May 2019. Such trip rates are 1.873 arrivals and 0.266 departures in the AM peak; and 0.194 arrivals and 1.715 departures in the PM peak.

Trip Generation

Comment 6 The trip rate and generation of the full development has been based on the whole area being developed as B1a to provide a robust assessment.

The proposed development is anticipated to generate 590 two-way vehicle trips in the AM peak (517 arrivals and 73 departures), and 527 two-way vehicle trips in the PM peak (54 arrivals and 473 departures).

Distribution

Comment 7 The development trip distribution is agreed. It is noted 70% of development vehicles approach from the A10 south in the AM peak, and 73% depart to the A10 south in the PM peak. This results in 363 of development vehicles approaching from the south in the AM peak and 346 vehicles departing towards the south in the PM peak.

Committed Development

Comment 8 It is noted 9,859sqm of the 2012 Masterplan has been implemented but is unoccupied. Using the agreed trip rates for B1a use, the unoccupied CRP development is anticipated to generate 211 two-way vehicle trips in the AM peak (185 arrivals and 26 departures), and 188 two-way vehicle trips in the PM peak (19 arrivals and 169 departures). This results in 129 development vehicles approaching from the south in the AM peak and 137 vehicles departing towards the south in the PM peak.

The unoccupied development traffic flows have been added to the 2019 baseline traffic flows and have been distributed using the existing turning proportions at the CRP roundabout. This is agreed.

Comment 9 Using the higher trip rates the total CRP post-development is anticipated to generate 1,217 two-way vehicle trips in the AM peak (1,086 arrivals and 131 departures); and 1,152 two-way vehicle trips in the PM peak (123 arrivals and 1,029 departures). It is noted in comparison to the 2012 Masterplan this is a reduction of 29 trips in the AM peak and an increase trips of 83 in the PM peak. If the trip rate continues to be similar to its current level, then these flows are reduced

to an overall trip generation of 837 arrivals in the AM peak and 843 departures in the PM peak.

Capacity Assessment

Comment 10 Junction assessments have been undertaken for the full quantum of development for Stretham Roundabout, the Cambridge Research Park access and Denny End Road junctions with the A10. Junction assessments presented in the submission dated 20th January 2020 do not include TEMPRO and therefore this evidence would be unacceptable. However, TEMPRO was included in the previous junction models dated 30th October 2019 – These models are acceptable.

Stretham Roundabout

Comment 11 The modelling of this junction shows that there is existing peak time congestion in the AM and PM peaks. In the AM peak the development will add approximately 99 additional southbound vehicles to this roundabout in the AM peak. This would exacerbate the existing congestion on the A10 north arm.

In the PM peak the development will add approximately 127 vehicles to the roundabout on the A10 south arm.

CRP Access Roundabout

Comment 12 Modelling results for this junction illustrates that in the PM peak of the '2019 Baseline + Committed + Proposed Development', '2024 Baseline + Committed + Proposed Development' and '2029 Baseline + Committed + Proposed Development' scenarios, the CRP arm is anticipated to operate over capacity with an RFC value of 1.02, 1.15, and 1.22 respectively. However, this would result in a queue within CRP which is acceptable.

Denny End Road

Comment 13 Referring to the agreed models there is no capacity for the full development in 2024 at the junction of Denny End Road with the A10. In the PM peak the background with committed development A10 southbound flow is 949 vehicles, which is only 37 below the 90% degree of saturation threshold on capacity of 986 vehicles. Given the nature of the corridor and the development, we must consider a 10 year horizon. The developers 10 year forecasts show that all of the capacity is gone by 2029, without the development.

Comment 14 In conclusion, a more significant upgrade of this junction is required. The Combined Authority is considering a scheme at this junction, although this is subject to an application with the DfT for funding, and is not presently a committed scheme.

A10 / Landbeach Road / Humphries Way

Comment 15 There is spare capacity at this junction for all assessment scenarios in both the AM and PM peaks. In 2024 with the development flows in the AM peak the A10 eastbound has a DoS of 74% and in the PM peak the A10 westbound has a DoS of 67%, whilst the A10 eastbound is close to capacity with a DoS of 87%. This highlights the findings of the Ely to Cambridge Study.

A10 / Butt Lane / Park and Ride

Comment 16 Modelling results for this junction illustrates that the junction will operate over capacity in the future year scenarios. In 2024 several arms are over capacity including the A10 northbound in the AM peak with a DoS of 96% and in the PM peak the A10 southbound has a DoS of 83% for the ahead movement and 99% for the right turn into Butt Lane.

The A10 northbound left ahead, P&R exit right left, of the P&R /A10 junction and the A10 northbound ahead left, and Butt Lane westbound ahead right of the Butt Lane/A10 junction movements are also noted to operate over capacity in the 2029 with committed development and development AM and PM scenarios.

These results confirm why the development could only proceed on the basis of (i) a sustainable (capped) phase one that does not intensify vehicular trips, (ii) a contribution towards strategic interventions for future phases.

A10 / A14 Interchange

Comment 17 Modelling results for the junction illustrates that the junction will operate over capacity in the 2029 future year scenarios for the A10/A14 Milton Interchange + HE Scheme + Waterbeach Barracks Proposal. This is particularly in the AM peak for the A10 southbound arm, the northern circulatory, the A14 westbound off slip, and the southbound circulatory.

These results confirm why the development could only proceed on the basis of (i) a sustainable (capped) phase one that does not intensify vehicular trips, (ii) a contribution towards strategic interventions for future phases.

A10 Corridor

Comment 18 In summary capacity issues at the junctions of Streatham roundabout and Denny End Road junctions result in the A10 corridor being at capacity when background growth and committed developments are included. With the addition of the full development, this would lead to severe impacts on the network.

Comment 19 As highway capacity is 'maxed-out' the corridor is dependent upon a modal shift away from the car and strategic infrastructure to add significant capacity for all modes. The infrastructure requirement is outlined in the 2018 0Ely-Cambridge Transport Study Preliminary Strategic Outline Business Case:

1. A modal shift package including the relocation of Waterbeach railway station, segregated public transport link linking the area to Cambridge, Improved cycle connecting to Cambridge and surrounding villages, parking restraint and travel planning at all major developments;
2. Junction capacity measures; and
3. Duelling of the A10 between the A14 and Ely.

The timing and delivery of this strategic infrastructure is not currently known and is awaiting funding decisions from the DfT and other key stakeholders. The Combined Authority is leading on the works to the A10, and the Greater Cambridge Partnership is leading on the public transport and cycling mode shift package of schemes.

Without any of this infrastructure committed or in place, any future growth will need to be delivered in a way that does not add additional car trips to the network. This will require developments to come forward with significant sustainable travel enhancements, demand management measures and adherence to a strict 'trip budget' for an area. If a development shows no signs of being able to meet its trip budget then development within an area will need to halt until this is resolved.

<u>CRP Transport Strategy</u>

Comment 20 The CRP should proceed on the basis of monitor and manage. This first phase should be 8,400sqm of B1a with a mitigation package that enables the required mode shift from the CRP. Each subsequent phase would require a Transport Assessment, setting out forecast impacts of that phase and associated mitigation (drawn from a strategic financial contribution).

Comment 21 Having reviewed the relative impacts of the development on the A10 corridor the following mitigation package is essential to mitigate development and therefore would seek to be agreed with the applicant as set out in the table below.

Phase	Mitigation	Method
1	Provision of a minibus service in perpetuity to serve the site and deliver the required CRP mode shift (details to be agreed as part of the condition)	Condition
	No occupation without cycle access to CRP unless otherwise agreed with LPA.	Condition
	Cycle Route improvements to be delivered directly by the developer connecting the site to Cottenham (or Landbeach as a fall back). Details (including delivery mechanisms and S106 requirements are being discussed with the developer)	Condition / S106
	Car Parking to be determined with each reserved matters	Condition
	Monitoring of trips into and out of CRP	S106
	Vehicle trip cap for Phase 1	Condition
	No development beyond Phase 1 hold	Condition
Future Phases	Subject to approval of a Transport Assessment	S106
	Contribution of £380,000 for strategic A10 corridor works	S106
	Car Parking to be determined with each reserved matters	Condition
	Travel Plan for development with monitoring of travel and trips into and out of CRP until 5 years following full occupation.	Condition