Bushfield Outline Planning Application 23/02507/OUT: Objection

Transport Emissions 4 December 2023



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Introduction

All aspects of this application, apart from those relating to access, are 'reserved' and there will be an opportunity to discuss them in more detail as the application proceeds. This does not apply to access, and if this outline application is approved there will be no further opportunity. The proposals on access are still relatively unformed and it would be premature at this stage to approve the access proposals.

The parts of the application that discuss transport do not attempt to minimise the extent to which the development will increase transport greenhouse gas (GHG) emissions. This is despite long passages in the application referring to legislation and policy on emissions. It feels to us that the proposers have not thought carefully enough about the damage that their proposal will do for the climate, especially because of the growth in traffic. They will need to do more to demonstrate to Winchester City Council (WCC) that their proposal will not do irretrievable damage to the Carbon Neutrality Action Plan (CNAP).

Conclusions

The traffic modelling suggests this development will increase transport emissions to such an extent it will undermine the CNAP. The specific out-of-town characteristics of this site are such that transport emissions will be disproportionately high in relation to the economic activity it will enable, and other sites would be more suitable with lower transport emissions. Since the application:

- includes only the most perfunctory emissions modelling,
- does not set out clearly the climate implications of the additional GHG emissions from transport this development will cause, and
- makes no proposals robust enough to reduce transport emissions to a level compatible with the CNAP
- contains only the vaguest proposals on modal share

We urge WCC to reject this application. Any future submission should not be considered unless the issues we outline below are addressed fully.

Summary

- Despite detailed references to policies on reducing GHGs at national and local level, **the application fails to address the scale of transport GHG emissions** it will cause. The reference to CP10 is meaningless without more practical proposals that address more usefully the growing urgency of climate policies. Many key policies are overlooked and their implications ignored.

- **WCC must reduce all emissions sharply** to achieve net zero by 2030 and transport emissions are nearly half of these.
- Compared with 2022, the modelling suggests **traffic volumes will increase by between 17% to 37%** on roads around the development by 2039. The application does not attempt to show how the increase due to the development itself can be limited neither to help achieve the WCC net zero target by 2030, nor even to achieve the government's **Net Zero Development Plan target of reducing 2022 emissions by 76% to 85%** by 2039.
- No attempt has been made to quantify the extent transport emissions associated with this development will undermine the CNAP. Using government conversion factors we calculate that the modelled **increase in traffic of 4542 trips will produce 6.15 KtCO_2e extra emissions annually**. To achieve net zero emissions by 2030 there will have to be overall cumulative reductions of 67 KtCO_2e in Winchester District transport emissions each year until 2030. There is clearly no headroom to accommodate an increase in transport emissions on the scale caused by this proposal, and it will make the sharp reduction necessary even more difficult.
- WCC recently made a submission to the M3 junction 9 inquiry that the increase in emissions associated with that project were **working 'in the opposite direction' to achieving the CNAP target**. Clearly the same comment will apply to this scheme, and WCC should not allow this scheme to 'present further difficulties' for the CNAP.
- The Sustainability Statement makes a number of vague proposals that are relatively unformed and weak about mitigating the damage caused by increased transport emissions, but **does not demonstrate satisfactorily the extent to which these proposals will contribute to emissions reduction**.
- The framework travel plan has no targets for achieving modal transfer to increase the share of walking, cycling and public transport access, nor for increasing the share of BEVs. Mitigation proposals are vague and inadequate.
- The traffic modelling suggests there will be **4,542** daily journeys to and from the site. There are plans for **1,050** parking spaces. It is difficult to reconcile these two figures. The proposals do not appear to be coherent or rigorous. The application does not engender confidence in the proposers.

Detail

Climate

On the face of it, this application appears to pay great attention to reducing the development's contribution to global heating. The Environmental Statement

Chapter E dutifully lists many national, Hampshire and Winchester policies on transport and climate.

The Environmental Statement is right to reference Local Plan policy CP10 which includes the priority:

To manage traffic to maximise efficiency of the existing network capacity, improving journey time reliability and reducing emissions thereby supporting the efficient and sustainable movement of people and goods.

However, the Environmental Statement fails to address this policy in the context of the range of climate policies that have subsequently provided a more stringent focus for action. The ten-page summary of policies in section 2 reads like an introduction to comprehensive plans for practical ways this proposal will comply with these policies.

Policies not addressed

Astonishingly, there is no such section and no attempt whatsoever to demonstrate how the application will comply with these policies. There is not even a numeric analysis of how the applicant will tackle the scale of the transport CO_2e the proposal will give rise to. The key policies this application has overlooked and failed to address in sufficient practical detail are:

- **National Policy Planning Framework September 2023 Para 104:** Transport issues should be considered from the earliest stages of plan-making and development proposals, so that …(d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.
- The government's **March 2023 Net Zero Growth Plan** (NZGP) that sets out indicative targets for domestic transport emissions for the dates referred to in this application (for 2039 values have been interpolated – government targets end at 2037 at 18% to 29% see Figure 1):

	NZGP 2027 emissions as % of 2022	NZGP 2039 emissions as % of 2022
Lower end of range	84%	15%
Upper end of range	88%	24%

This will be especially important because of the traffic growth the proposal anticipates will happen on the roads around the development:

	2027 traffic as % of 2022 traffic	2039 traffic as % 2022 traffic
Lower end of range (Romsey Road)	107%	117%

Upper end of range (Badger Farm Road SE)	128%	137%

To comply with the UK NZGP the proposers will need to demonstrate how the growth in traffic they predict will be accompanied by a sufficient cut in traffic emissions to achieve the emissions reductions the NZGP suggests.

- HCC's commitment in their draft LTP 4: "**Vision A: Reduce transport-related carbon emissions to net zero (neutrality) by 2050** - Very significant changes in travel behaviour are required. A 10% reduction (approx.) in car use (vehicle-kilometres) in Hampshire is required between 2019 and 2030 if we are to remain on-track to deliver our climate change targets." This ambition may now have to increase to comply with the UK Net Zero. Growth Plan. The proposal refers somewhat vaguely to an inadequate 10% reduction, but includes no robust proposals for achieving it.
- Even more ambitious is Winchester City Council's commitment in their **Carbon Neutrality Action Plan** (CNAP) to achieve net zero emissions by 2030, 48% of which were transport-related in 2021 (Figure 2); the City Council cannot afford to allow any scheme to cause an increase in transport (or any other) emissions, since overall they will need an annual reduction of at least 139 KtCO_2e per year of Greenhouse Gases (GHGs) until 2030 – Figure 3. Transport emissions will need to reduce by 67 KtCO_2e per year. To succeed the City Council will need all traffic to have zero emissions by 2030, or some form of offsetting. This development would make this ambition even more difficult.
- Extraordinarily, Appendix L2 Supplied Traffic Data assumes the underlying traffic increase between 2019 and 2027 will be about 10.5%, and between 2019 and 2039 it will be about 20.5%. This assumption has no connection with the NZGP, HCC's LTP4, or WCC's CNAP. All the traffic data needs to be recalculated in the light of these policies.

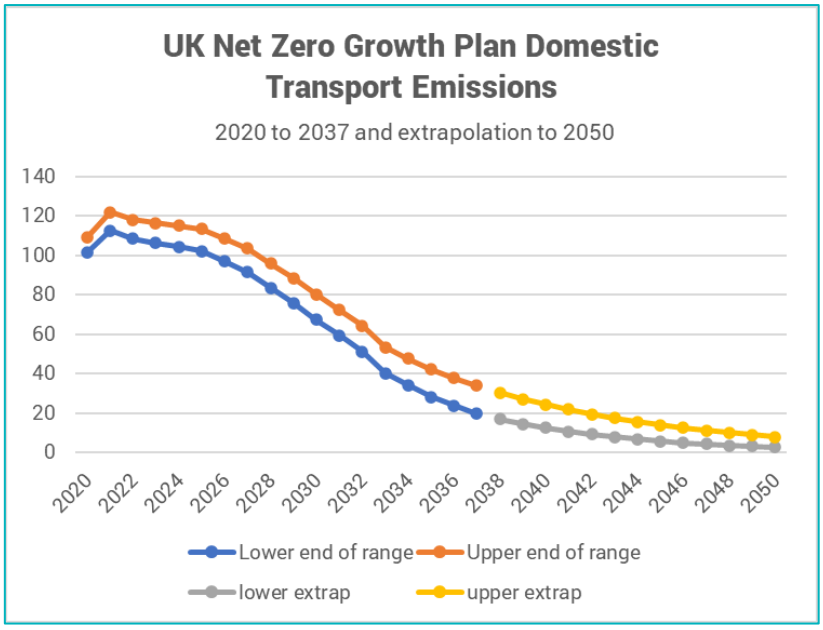


Figure 1

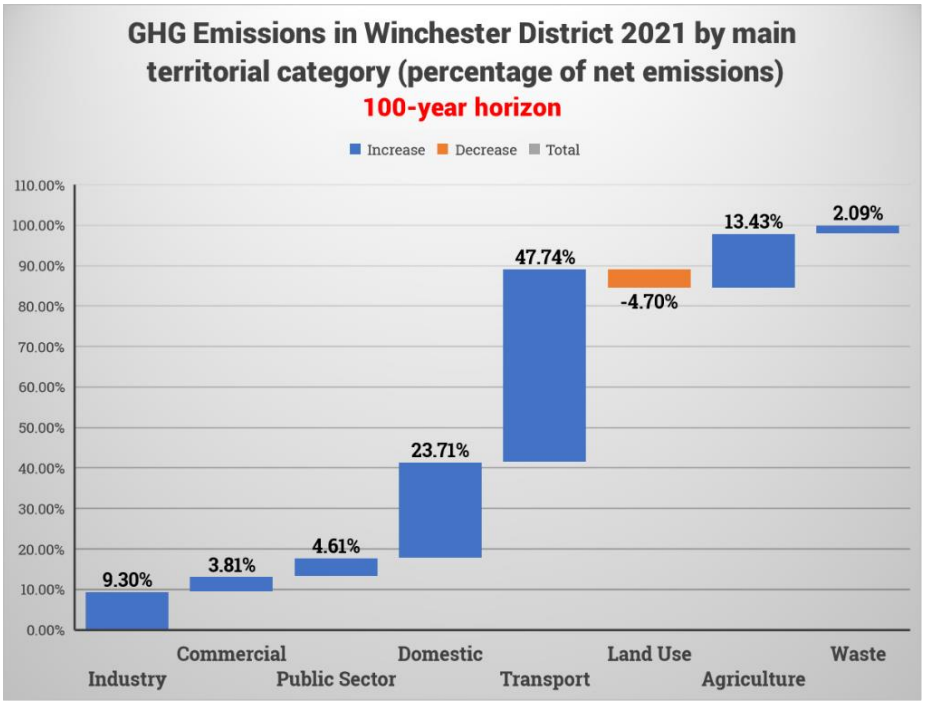


Figure 2

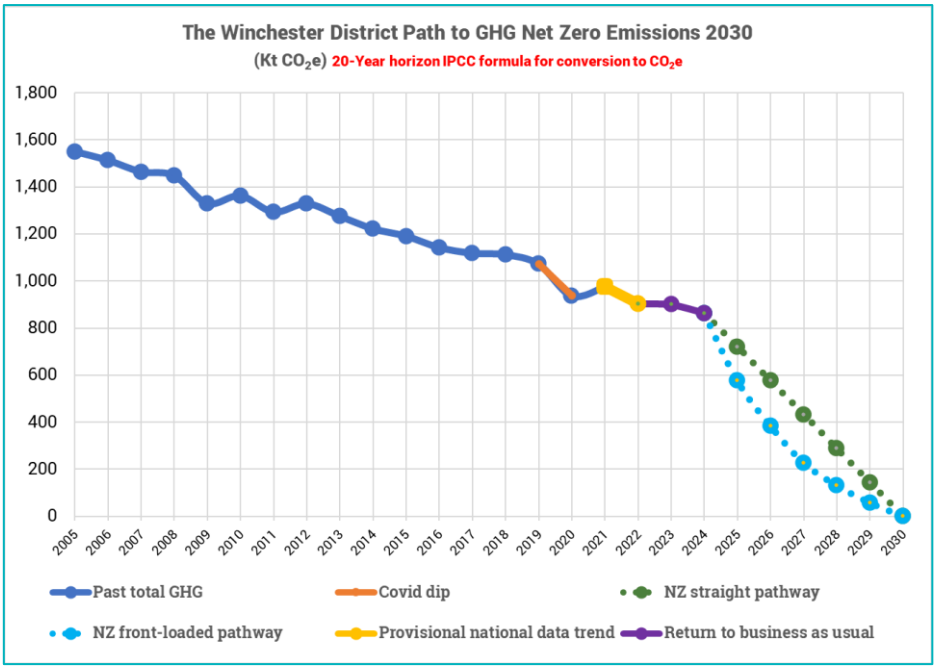


Figure 3

No Meaningful Quantification of Transport Emissions

In the current circumstances of dangerous levels of global heating, there is a need for an outline planning application like this to quantify all the emissions it will create and demonstrate the actions it will take to reduce them so that they are compatible with climate policies. WCC cannot allow additional transport emissions to be associated with this application and that ideally any proposals will help reduce current emissions. It is clear that the outline application submitted demonstrates this will be far from the case. Since at this stage there is a focus on access, extensive detail should be given in the application on emissions relating to transport access. Winchester City Council must not approve this outline application until satisfactory proposals have been received for ensuring that the development will enable WCC to stay within the necessary emissions envelope.

The traffic modelling predicts by 2027 **an increase in annual average daily traffic as a result of this proposal of 4542 journeys** (3848 coming/going from the south east end of Badger Farm Road and 694 journeys coming/going from the north west end of Badger Farm Road) (Using data in ES Chapter E Transport p 38 Table E5.6 we subtracted do minimum (DM) in column 3 from do something (DS) in column 4 do see the developers' estimate for the growth in traffic at sites 1a and 1b where traffic feeds into the proposed site). It is regrettable the applicants do not highlight this increase more clearly.

Link Ref	Link Location Description	Two-way AADT 24 2027 DM (Vehicles)	Two-way AADT 24 2027 DS (Vehicles)	% Change in Link AADT
Site 1a	Badger Farm Road (between Meadow Way and Site Access)	18289	18983	4%
Site 1b	Badger Farm Road (between Site Access and St Cross Road)	18289	22137	21%

The GHG user calculations (Appendix M-1 Table 8) use a similar daily increase in trips, and confirm our calculation based on the table above.

Assumed mode of transport	Assumed Distance travelled (km)	Source of assumed distance travelled	Annual trips	Number of trips over 60-year lifecycle	Carbon factor (total kgCO2e per km)	GHG emissions (tCO2e)
Cars	14	Nimblefins: Average Car Journey Distance UK. Available here	1,657,465	99,447,900	0.16674	232,147.1998

.

Dividing the annual trips in column 4 by 365 gives almost the same daily average trip increase, at 4,541. It is shockingly clumsy that the GHG calculations in this table for 60 years up to 2087 assume they will remain just as high for the whole period. Worse, the applicant's calculations make no allowance for the need to reduce emissions according to the government's NZDP, ignore the battery electrification of road vehicles, and overlook the legal target of net zero by 2050.

To compound these shortcomings in Appendix M-1 the applicant has used a figure for the 'average car' emissions factor that is not in the most recent conversion factor tables, and has failed to include 'well-to-tank' emissions in the calculation, which means that the rate of emissions for the initial years is significantly understated.

We have mapped the increase in trips in 2027 as set out in the whole of table E5.6 in ES Chapter E Transport p 38:

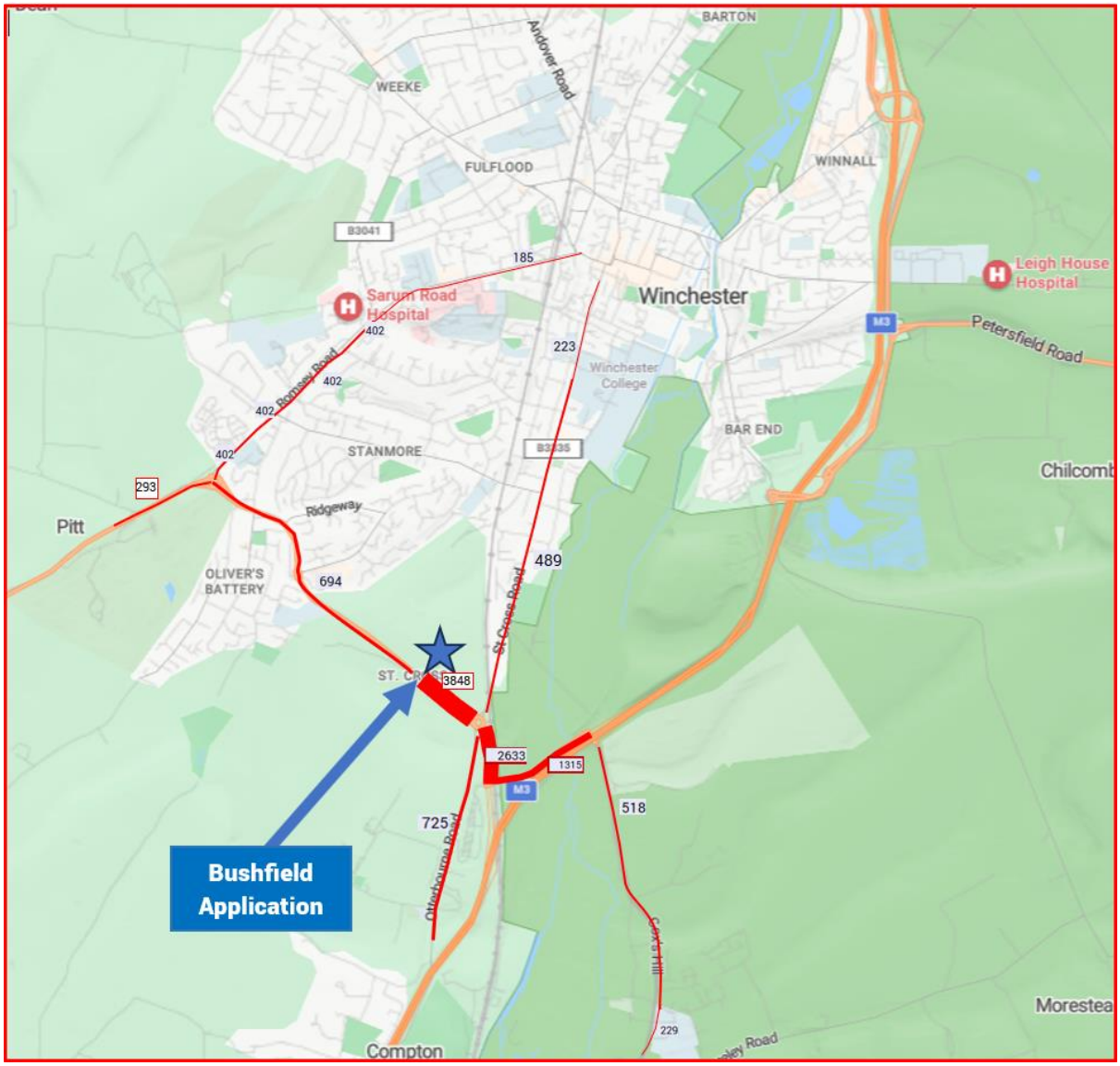


Figure 4 The proposed pattern of additional journeys to and from Bushfield Camp (based on ES Chapter E Transport Table E5.6) resulting from the proposal (red lines with increased trip numbers in adjacent boxes)

In the early years up to 2030 it is likely almost all of these additional journeys will be fossil-fuel powered; registration of battery electric vehicles in the district is still very low, and the number of fossil fuel vehicles registered in the district continues to increase. In total we interpret the applicant's modelling to suggest this development will give rise to **18,236,130** additional vehicle miles per year.

According to government GHG conversion factor tables, assuming these journeys are using 'average diesel cars' this will, up to 2030, produce **an additional 6.15 $KtCO_2e$** of emissions. This will be the equivalent of 1.5% of all 2021 transport emissions in the district, or **5.5% of emissions on local roads**.

At a time when the district needs to achieve cumulative reductions in transport emissions of **67 $KtCO_2e$ each year** this will completely undermine the CNAP.

Given the difficulty of achieving the 2030 net zero target for the current pattern of transport emissions, there is absolutely no justification for allowing this scheme to add further transport emissions. Similarly this increase in transport emissions will make it harder for Winchester to achieve the government's NZGP targets.

There are many brownfield sites closer to the centre of Winchester in need of investment that would have a fraction of the transport carbon footprint that this proposal will create, and that will not undermine the CNAP to such an extent.

In parallel to this there is a whole Framework Travel Plan (Appendix E2) that totally ignores the need to set out emissions reduction targets. Sections 6.2.2 and 6.2.3, even though they have headings that include the word 'targets,' merely suggest some possible indicators. This is simply not good enough. An outline planning application should be able to specify when emissions will reduce, how this will be achieved, and set out the rate of growth of zero carbon transport, and the rate of modal transfer to cycling, walking and public transport that will make this possible. Without these there is no competent travel plan and no meaningful framework for limiting emissions.

Winchester City Council's focus on limiting transport emissions

Recently, Winchester City Council argued strongly against the proposals to widen the A34 and M3 at M3 Junction 9. They made a submission to the Examining Authority that the increase in transport emissions that will result from the widening will threaten the CNAP targets. They argue strongly for quantification of emissions and careful emissions management. We believe that for the same reasons similar rigorous quantification of an increase in emissions is needed in this application. They submitted, amongst other things:

> Reducing transport emissions to a carbon neutral level by 2030 is … a key challenge the council is facing. Any project that is working in the opposite direction will present further difficulties in achieving this challenging target.

It would not be consistent with this submission for Winchester City Council to approve this outline application as currently submitted.

Vague proposals in the Sustainability Statement (Movement pp 28/9) are not ambitious enough to reduce emissions significantly

This section reads like a checklist of fashionable ideas, but does not work through any strategy for ensuring they will be developed robustly to ensure transport emissions will be minimised. There is no analysis of how they will affect mode share, how they will reduce journeys made by fossil-fuel vehicles, nor how much greenhouse gas emissions will be saved.

<table>
<tr><th>Proposal</th><th>Shortcoming</th></tr>
<tr><td>Transport Assessment</td><td>
The Sustainability Statement referring to the transport assessment is of no value without specific mode share targets in the Framework Travel Plan (Appendix E2). In order to achieve net zero transport emissions by 2030 most access by then would have to be by walking, cycling, and BEV public transport. Any residual private transport would have to be by BEV with green electricity charging facilities, and a zero emissions transport zone on site.

No mode share targets are given in any of the documents. All we have is an estimate of mode share without intervention in para 5.3.8 of Appendix E1, Transport Assessment:.

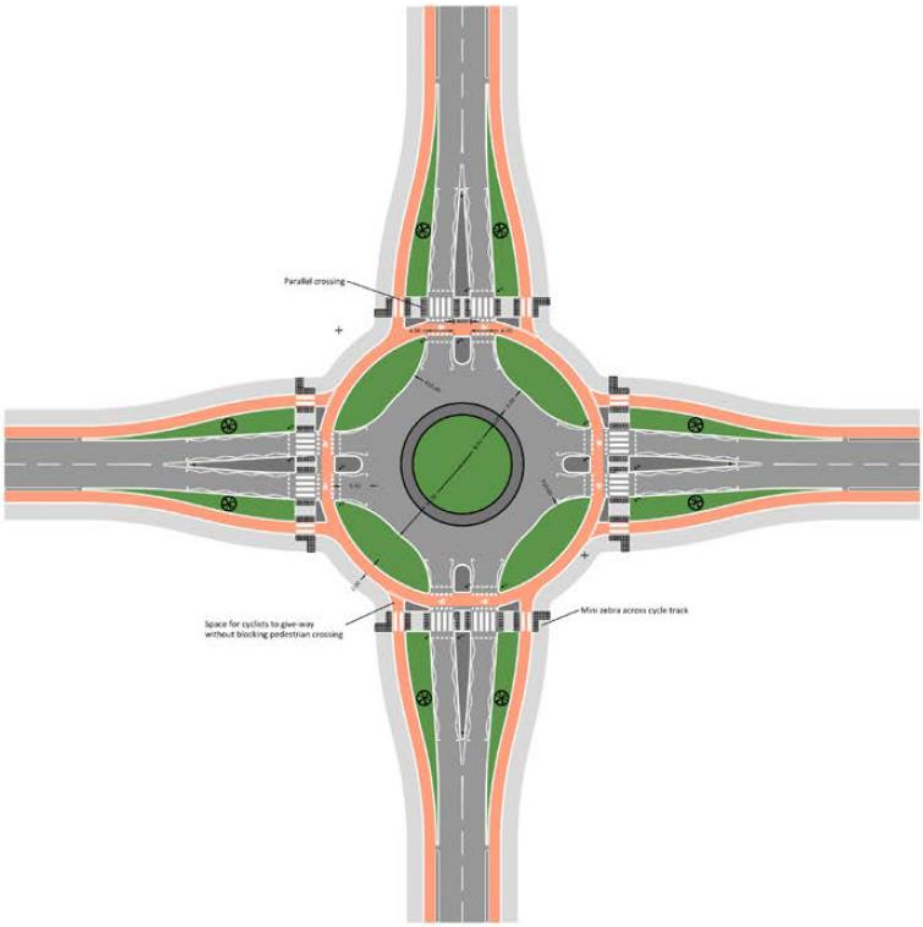
<table>
<tr><th>Mode</th><th>Winchester 007</th><th>Winchester 008</th><th>Winchester 009</th><th>Blended Winchester 008 & 009.</th></tr>
<tr><td>Underground, metro, light rail or tram</td><td>0.1%</td><td>0.0%</td><td>0.0%</td><td>0.0%</td></tr>
<tr><td>Train</td><td>9.2%</td><td>6.8%</td><td>2.0%</td><td>3.1%</td></tr>
<tr><td>Bus, minibus or coach</td><td>6.6%</td><td>3.8%</td><td>3.6%</td><td>3.7%</td></tr>
<tr><td>Taxi</td><td>0.6%</td><td>0.0%</td><td>0.3%</td><td>0.2%</td></tr>
<tr><td>Motorcycle, scooter or moped</td><td>0.8%</td><td>0.7%</td><td>0.6%</td><td>0.6%</td></tr>
<tr><td>Driving a car or van</td><td>56.4%</td><td>48.6%</td><td>79.7%</td><td>72.6%</td></tr>
<tr><td>Passenger in a car or van</td><td>4.7%</td><td>4.6%</td><td>4.8%</td><td>4.7%</td></tr>
<tr><td>Bicycle</td><td>2.5%</td><td>4.3%</td><td>3.2%</td><td>3.4%</td></tr>
<tr><td>On foot</td><td>18.8%</td><td>30.7%</td><td>5.7%</td><td>11.4%</td></tr>
<tr><td>Other method of travel to work</td><td>0.3%</td><td>0.5%</td><td>0.2%</td><td>0.2%</td></tr>
<tr><td>Total</td><td>100.0%</td><td>100.0%</td><td>0.0%</td><td>100.0%</td></tr>
</table>

This is followed by the intention to ‘achieve a mode share for car use substantively (sic) below [72.6%].’ Perhaps the applicant meant ‘substantially’ but then proposes only a feeble 10% reduction. A mode share for cars of 65% would still have a disastrous impact on the CNAP.

As an illustration of the lack of ambition the national travel survey suggests an average percentage of journeys for ‘driving a car’ in ‘rural town and fringe in England’ is closer to 47% (NTS 9903).
</td></tr>
<tr><td>Priority spaces for car sharers</td><td>‘At least 5%’ will on its own have a negligible impact. By 2030 all road transport emissions would need to be removed, so it would be necessary.to reserve a majority of spaces</td></tr>
<tr><td>3kW chargers for 25% of cars</td><td>By 2030 there must be 100% facilities</td></tr>
</table>

Proposal	Shortcoming
100% EV charging in the future	'In the future' should be 'by 2030' and BEVs by then would have to be compulsory on site. Progressive reduction in parking provision would be needed as modal alternatives have demonstrated their attractiveness.
Mobility Hub	More details are needed to give this any meaning, and some rationale is necessary but missing, on how this would reduce emissions and by how much. In that mobility hubs are normally used to facilitate transport interchange, and this location is a destination with little interchange, it is hard to know why this has been included. In political discourse this would be described as a "dead cat," included as a distraction to divert us from the overall lack of productive ideas. As written, this does not go beyond a vague aesthetic aspiration, and is of no relevance.
Car club	Again no clear indication on how this will reduce emissions, other than embedded emissions saved through more intensive use of fewer cars. There is not even a reference to BEV car clubs.
Public Transport	These proposals are nowhere near ambitious enough to have more than a marginal impact on transport choices. Nothing less than a commitment to a permanent contribution to public transport across the whole area to bring it up to high standards will suffice to cut car use. Ideas in earlier discussions for extending buses to Shawford Station are ignored. The private shuttle bus to the station will, on the experience of similar other schemes, only increase emissions or energy use. The Arquiva bus linking their campus with the station is usually empty. There is a need for an integrated public transport proposal that will ensure all journeys to/from the site will be more attractive by public transport than by car.
Cycle storage and showering	These will be necessary but not sufficient to guarantee a high mode share for cycling
Electric Bike facilities	Again, these are necessary but not sufficient. The proposal does not show any understanding of fundamental deterrents

Proposal	Shortcoming
	to cycling (mostly fear of traffic, which will be made only worse by the major increases predicted around the site).
Pedestrian Crossings	If walking is to become a significant access mode, more needs to be done than two pedestrian crossings. The map provided claims an extensive network by borrowing footpaths and bridle ways. There needs to be an extensive analysis of likely walking route needs and barriers to walking on these routes, with clear specific proposals for improvements. What is included is nowhere near adequate, and these proposals should already be defined as part of an outline planning application where 'access' is not a reserved matter. It is disingenuous to refer to the LCWIP without acknowledging it is unfunded without contributions from developments like this.
Cycle Routes	Similarly LCWIP proposals are unfunded for this too. By outline planning stage the proposal should include extensive credible plans and funding for creating cycle routes to the site that are so attractive that they will achieve substantial modal share and so minimise transport emissions. Little is proposed for locations beyond the developer's site. We believe significant investment will be needed to replace with cycling the type of car journey modelled. We believe there will need to be at least a high quality cycling route from Winchester Station to Shawford Station via Bushfield Camp, with overnight lockups at both stations, and an initiative with South Western Railway to develop frequent direct all-stations train services on the lines to both Southampton and Portsmouth from Shawford. Of particular concern to us is the drawing of proposed pedestrian and cycling infrastructure at Bushfield Roundabout. It appears that the designers have not followed DfT LTN 1/20 despite claiming compliance. They seem to have overlooked the current design rules on horizontal radii:

Proposal	Shortcoming
	Table 5-7: Minimum horizontal radii | Design speed (kph)	Minimum horizontal radius (m)
40	40
30	25
20	15
10	4 | They have ignored the examples in LTN 1/20 of roundabout design, such as:  In particular they have ignored the recommendation in para 10.7.15 that 'As with all crossings, there should be no stagger between the crossings for cyclists of the roundabout entry and exit.' Overall the drawing is unlikely to produce infrastructure that will encourage more walking and cycling. Both pedestrians

Proposal	Shortcoming
	and cyclists want to travel directly to where they want to go, and generally refuse to be bullied by lazy engineers into crossing noisy intersections by navigating indirect routes with frequent right-angled kinks. The whole design needs to be rethought and redesigned so it is truly in compliance with LTN 1/20.

Contradictions between trip modelling and parking space provision

There is a proposal for 1,050 parking spaces on the development. Our calculations suggest the floor area is unlikely to provide more than 850 spaces, and we would welcome a reduction in parking spaces. Even so, we are concerned that this may mean that even more space will be required for parking.

We do not understand how the 4,542 modelled daily journeys to and from the site will be accommodated in 1,050 parking spaces. If all modelled daily journeys stay all day it would seem that 2,271 spaces would need to be provided. It seems improbable that over half of daily visitors would stay for complementary short periods lasting less than half a day.

The graph in fig 5-2 on page 119 of the Transport Assessment, based recklessly on average daily demand, seems to assume that by 13:00 about 730 vehicles will have left the site and that about 530 vehicles will arrive after 13:00. It seems improbable that 56% of the vehicle-accessed stays on site will be for complementary halves of the day. On busy days the number of trips will be well above average. At peak times of the year there could be 6,000 trips requiring up to 3,000 spaces. This volume would defeat the modelling and produce parking chaos.

We believe that outline planning permission would be premature until the applicant can demonstrate that all the different parts of the application have logical inter-relationships, and that the disparate parts are compatible.

The Unrealistic Transport Assessment Conclusion

The transport assessment concludes:

8,1.7 The Proposed Development strongly supports use of non-car, sustainable and active travel modes and a Framework Travel Plan will be in place once the Proposed Development is operational to promote and monitor the uptake in sustainable travel modes.

8.1.8 An extensive list of improvements both within the site and on the surrounding local highway network is proposed to enhance the accessibility of the site and mitigate its impacts.

8.1.9 Therefore, it is concluded that there are no transport or highways reasons why the outline planning applications for the Proposed Development should not be granted planning consent.

We find the applicant's support for active travel thin to non-existent, the list of improvements negligently short of the scale of what is required, and the Framework Travel Plan without rigour or substance. There is every possibility that these proposals will lead to traffic chaos and destroy WCC's plans to reduce emissions by 2030.