

Technical Note_Rev 0_V2_DRAFT

Project:	Ipswich Northern Fringe	Job No:	60103240
Subject:	Review of Transport Assessment July 2014 (Application Ref: 14/00638/OUTFL)		
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Introduction

This Technical Note has been prepared by AECOM at the request of Suffolk County Council (SCC) to undertake an initial review of the Transport Assessment (TA) submitted in support of a hybrid application Ref: 14/00638/OUTFL prepared by Croft Transport Solutions (CTS) dated July 2014.

The application relates to development of part of the Fonnereau Village site which forms the central development parcel within the Ipswich Northern Fringe but the application excludes the Ipswich School site, which also forms part of the central parcel, to the south of the application area.

It is important to note that many of the findings of the CTS TA are based on outputs from a Paramics Micro-simulation model which is to be independently reviewed under a separate appointment, and therefore is not considered within this note.

Background Information

This Technical Note provides an initial review of the CTS Transport Assessment in light of discussions held with SCC at the scoping stage of assessment, and in light of the Ipswich Garden Suburb Supplementary Planning Document (SPD), which provides a design brief for development on the wider Northern Fringe area, of which the application forms part.

As such, any Transport Assessment for development within the Northern Fringe will need to demonstrate that the proposals are in line with the SPD to ensure that the development of the Northern Fringe as a whole is not compromised by a piecemeal development of individual plots.

A Scoping Note for the TA was submitted to SCC highway authority by CTS in March 2014. AECOM provided a response to the TA Scoping Note in April 2014 which highlighted a number of findings, based on the information provided at the time, which needed to be addressed to allow the impacts of the development proposals to be considered.

A summary of findings at the scoping stage are summarised below, and referenced 1-12 where relevant within this Note:

1. A site plan is required to comment on any proposed access arrangements. Access for all modes needs to be identified and the proposed layout needs to be in keeping with the wider strategy for the area.
2. The proposed access arrangements need to be reviewed in the context of a site layout to understand the implications however, any access arrangements must make allowance for future aspirations for the area as laid out in the Northern Fringe Transport Strategy and Ipswich Garden Suburb SPD. This includes consideration of the funding and land required for delivery of the future bridge link between Fonnereau and Henley Gate neighbourhoods.
3. All trip rates put forward related to vehicles only. Multi-modal trips need to be considered to fully understand the transport needs of the proposed development.
4. The residential trip rates were reviewed and found to be low, especially considering the fact that they are put forward with no consideration of existing mode share, future mode share or future

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mode share targets. It is suggested that the trip rates identified by AECOM in this document are a more appropriate starting point.

5. The retail trip rates put forward were found to be low, due mainly to the fact that the range of store sizes did not reflect the proposed GFA anticipated. A revised analysis, which excluded petrol filling stations, derived what AECOM consider to be a more accurate starting point.
6. The trip rates identified for the non-food retail uses were assessed to be a reasonable base point, but further clarification is required regarding the intended uses.
7. Appropriate mode shift targets and an effective sustainable transport strategy to achieve them are required for the proposed development.
8. There is a lack of clarity in the CTS Scoping Note regarding the intended assessment scenarios. Bearing in mind the phased nature proposed and the wider context of the development, five scenarios are suggested to understand the proposed development impacts and the significance of commitment to an effective sustainable transport strategy.
9. The proposed distribution for the residential development needs to be examined in further detail. As such supporting information is requested to support the distribution put forward.
10. The proposed distribution and non-primary trip assumptions for the proposed retail uses need to be related directly to a Retail Impact Assessment. Evidence of this relationship, along with a copy of the RIA would need to be reviewed before a conclusion could be reached.
11. Outline Travel Plans will be required for each component of the proposed development. These should be intrinsically linked with the Transport Assessment and should be consistent with a wider Ipswich Northern Fringe Framework Travel Plan which the developer will be expected to facilitate.
12. The Transport Assessment will need to include an accident analysis and a review of the routes to the anticipated catchment schools by sustainable modes.

Development Proposals

The development proposals include an Outline application for the Fonnereau Village site (excluding the Ipswich School site), and a Full application for the first phase of residential development consisting of 80 dwellings on the eastern edge of the Fonnereau Village site (adjacent to Westerfield Road) as set out in the Planning Statement:

“The hybrid application seeks outline planning permission for the entire site, with detailed planning permission for the first phase of residential development (phase 1a), together with the infrastructure and open space which serves it.”

‘A sustainable urban extension to Ipswich of up to 815 dwellings (C3), a district centre (with up to 7,360 sqm of floorspace in the following use classes: A1 retail (not exceeding 4,540 sqm), financial services (A2), restaurants, pubs and takeaways (A3, A4, A5), business uses (B1a), dwellings and institutional residential uses (C2, C3) and non-residential institutions (including health centre (D1) and leisure uses (D2)); a reserve site for a primary school (D1); access from Westerfield Road and Henley Road; green infrastructure (including formal and informal open space, amenity space and pavilion/changing rooms); infrastructure (including movement (highways, parking, cycle and pedestrian routes), utilities (including gas, electricity, water, sewerage, telecommunications) and sustainable drainage systems, and engineering works (including ground remodelling and enabling works).’

The Transport Assessment submitted by CTS considers the following cumulative development quantum:

- 815 residential dwellings;
- Convenience store (A1-A5), up to 1,700sqm
- Small retail units (A1), up to 1,520sqm
- Service uses (A1-A5), up to 1,320sqm
- Other retail and service uses, up to 1,320sqm
- Commercial floorspace, up to 500sqm
- Community facilities (D1, D2), up to 1,000sqm

- Green infrastructure, 11.68ha
- Education 2.00ha

In order to consider the impacts of the development proposals detailed in the Transport Assessment, further clarification is requested as to the nature and commitment to the provision of the proposals being assessed at each stage of development. The phasing of these developments is not currently clear, this is relevant as it will affect the potential for internalisation of trips and subsequent impact on transport networks.

For example, up to 4,540sqm of A1 retail space is being applied for, and the 'Town Centre Uses Statement' submitted as a supporting document to the application assumes a foodstore supermarket of up to 2,400sqm is provided, with the remaining retail space being used for smaller units. Both of these figures differ from the development quantum listed above, which have been extracted from the CTS Transport Assessment. Transport impacts will be very different for a large food supermarket to that of smaller retail units and as such a clear understanding of the proposals is required, or else an assessment of the worst case scenario in trip generation terms should be made.

Also, the proposals include 'a reserve site' for a primary school. However, further clarification is sought as to whether a primary school will be provided on site, and if there is no clear commitment and date of occupation, then 'with' and 'without' primary school scenarios should be considered. This is required in order to assess the impacts of the proposals in light of any resultant internalisation of trips and the routes taken for pupils to get to school.

The Ipswich School site does not form part of the application. Assessment scenarios including and excluding the Ipswich School site are required to demonstrate that the application does not jeopardise future development of the school site (both in terms of access routes and capacity). Further clarification of the access proposals is requested to ensure that the Ipswich School and neighbouring development parcels within the Northern Fringe can be accessed from within the central parcel.

As such, further information is requested as previously highlighted at the scoping stage in points 1 and 2 of the AECOM Response to Scoping Note (April 2014).

Assessment Years and Scenarios

The CTS Transport Assessment identifies the following scenarios and assessment years for assessment:

Development Phase 1

150 residential dwelling on the north-east of the site (to include full planning for 80 dwellings) accessed via a simple priority junction onto Westerfield Road.

Development Phase 2

Additional 665 residential dwellings and include the district centre uses accessed via a signalised arrangement located along Westerfield Road (to the south of the Phase 1 access).

2021 Assessment Year

- Do Minimum AM and PM peak hour (to include all consented and committed development to be built by 2023)
- Do Something Phases 1 AM and PM peak hour (as do minimum + Phase 1)
- Do Something Phases 1 & 2 AM and PM peak hour (as do minimum + Phases 1 & 2)
- Do Something Phases 1 & 2 AM and PM peak hour with Sensitivity Trip Rates (Scenario 1 + Phases 1 & 2) (sensitivity trip rates).

2027 Assessment Year

- Do Minimum AM and PM peak hour (to include all consented and committed development to be built by 2023)
- Do Something Phases 1 & 2 AM and PM peak hour (as do minimum + Phases 1 & 2)
- Do Something Phases 1 & 2 AM and PM peak hour with Sensitivity Trip Rates (Scenario 1 + Phases 1 & 2) (sensitivity trip rates).
- Do Something Northern Fringe AM and PM peak hour (as do minimum + full Northern Fringe Development)

All phases of development are considered in ‘do something’ scenarios. However, it is not clear what sustainable transport objectives are proposed in each stage. Without any firm commitments to implementing sustainable transport objectives, it is not possible to understand how any future trip generation characteristics will change as a result of any potential internalisation of trips/ modal shift within the site.

Clarification is sought as to what is included in the ‘do minimum’ and ‘do something’ scenarios in each assessment year. In order to consider the appropriateness of proposed mitigation, ‘do nothing’ (without transport improvements) and ‘do something’ (with transport improvements) scenarios are required to consider the impact of the proposals at each development phase as highlighted at the scoping stage in point 8 of the AECOM Response to Scoping Note (April 2014).

At the Scoping stage, Table 1 of the AECOM note (April 2014) is re-provided, which highlights potential assessment scenarios (based on the information provided at the time) which would allow a comparison of the impacts with and without an allowance for the proposed Sustainable Transport Strategy proposals.

Table 1 – Assessment Scenarios Suggested at the Scoping Stage

Scenario	Year	Fonnereau Development	Trip Rates	Background Growth
A	TBC	150 residential units	Initial External	TEMPRO
B	2021	900 residential units + Retail	Adjusted External	TEMPRO minus Fonnereau Development + 300 units on the Ipswich School Site
C	2021	900 residential units + Retail	Adjusted External with allowance for Sustainable Transport Strategy (TBC)	TEMPRO minus Fonnereau Development + 300 units on the Ipswich School Site
D	2027	900 residential units + Retail	Adjusted External	TEMPRO adjusted for projected wider Northern Fringe Growth to 2027
E	2027	900 residential units + Retail	Adjusted External with allowance for Sustainable Transport Strategy (TBC)	TEMPRO adjusted for projected wider Northern Fringe Growth to 2027

The CTS TA has not followed this example with a number of aspects remaining unclear. Further information/ clarifications are therefore required to demonstrate the impact of the development proposals including:

- What year the first phase of residential development will be completed;
- What elements of the Sustainable Transport Objectives are proposed at each stage of development;
- Whether any development on neighbouring sites is accounted for in 2021;
- What background growth assumptions have been made and how they impact existing network performance;
- What assumptions have been made for the full build-out of the wider Northern Fringe;
- How have trip rates been adjusted at each stage of development, and what is the impact of any resultant modal shift;
- How trips outside the proposal site boundary are assigned to the network;
- How are the Ipswich School site and 'reserve site' for a primary school accounted for/ assessed;
- Details of the full development make-up of the Fonnereau site at each stage of development.

Table 3.1 of the Infrastructure Delivery Plan identifies a year on year build-out summary commencing from 2016, with 979 dwellings completed in 2021. It is unclear how this number relates to the 815 dwellings proposed in the CTS TA or the potential 300 dwellings identified on the Ipswich School site which is within the central parcel of the Northern Fringe, but outside the application boundary.

Further details will therefore be required in order to ensure that appropriate assessments have been undertaken with quantifiable impacts, and clear mitigation proposals as necessary for each stage of development in line with the Local Transport Plan and the SPD.

Assessment Network

In order to consider the impact of the development proposals and any proposed mitigation, it is necessary to establish an appropriate cordon for assessment. The CTS TA has based analysis on a wider Paramics model which is being reviewed under a separate appointment and is therefore not considered as part of this Note.

However, clarification of the assessment methodology and assignment of multi-modal development trips is requested in order to consider the impact of the proposals within the Transport Assessment. It is currently unclear why a wider cordon has not been considered, particularly given that the proposals should ensure that development of the wider Northern Fringe is not compromised, in line with local policy.

Two junctions have been identified for junction improvements in the CTS TA. However, as no development flow plots are provided through an agreed assessment network, it is not possible to determine if any other junctions are likely to be significantly impacted.

It is therefore not possible to determine what impact the development proposals will have on existing transport networks, when any mitigation will be required, or how the proposals will impact development of the wider Northern Fringe. Further information is therefore requested.

Site Accessibility

The CTS TA provides a description of transport networks in the immediate vicinity of the site. However, there is little consideration of the suitability of likely routes to local amenities (such as safe routes to schools), employment areas, or the town centre. It is also unclear which routes will become available at each phase of development, and what level of demand they will facilitate. The potential to provide off-carriageway pedestrian/ cycle routes has also not been considered.

Clarification of the access proposals in relation to key pedestrian and cycle routes to serve the proposed development, and links to development parcels within the Northern Fringe is requested to ensure the proposals are in line with the SPD and do not rely unnecessarily on car use for local trips.

The CTS TA contains no proposals for a new pedestrian/ cyclist crossing on Westerfield Road. As an existing footway is only provided on the eastern side of Westerfield Road, with no footway currently proposed on the western side, a safe crossing location will need to be identified in order for pedestrians to access the site, and to provide future access to the eastern parcel of the Northern Fringe.

Further details are sought as to how the Public Rights of Way through the site will be maintained at each phase of the development to ensure that high quality connections are provided, and to avoid a piecemeal approach to the provision of such routes.

As with the pedestrian routes, it is unclear what routes to existing bus stops will be available at each stage of the development proposals, or whether all parts of the site are within the 400m catchment to all bus stops detailed within the TA.

The five bus routes detailed show infrequent services of approximately 1 service per hour, with bus routes operating along Henley Road and Westerfield Road. The CTS TA concludes that the site is well located with respect to accessibility to public transport, with a reasonable level of service. However, given that the existing services are of a low frequency, and that not all services are within 400m from any one part of the site (Plan 5 of the proposed Bus Strategy) further clarification/ justification of this of this assertion is requested. Without a full multi-modal trip generation assessment, it is not possible to determine what additional demand the development proposals are likely to generate on each bus route, and whether any increase in demand can be accommodated.

It is therefore not possible to determine whether the access proposals are appropriate to serve the development, or whether future connectivity to the wider Northern Fringe will be compromised by the proposals. Further information is requested to demonstrate that the proposals are in line with the SPD.

Bus Strategy

A Bus Strategy has been included in the CTS TA (appendix 6). However, no demand forecasts, service frequencies, or potential for modal shift are identified within the Strategy. There is also no firm commitment to providing bus links to the neighbouring development parcels within the Northern Fringe.

As such, it is not possible to determine whether the proposed Bus Strategy is appropriate to serve the development, or whether future connectivity to the wider Northern Fringe will be compromised by the proposals in line with the SPD.

Sustainable Transport Objectives

The CTS TA highlights a number of sustainable transport objectives. However, it is not clear if any of these objectives are firm commitments, when these improvements are proposed to be completed, or what modal shift these proposals will facilitate in future.

Without a clear comparison of 'with improvements' / 'without improvements' scenarios it is not possible to determine the development impact on existing networks, or assess the potential for modal shift following the improvements.

A full multi-modal assessment with clearly defined sustainable transport improvements and resultant modal shift is therefore required for each assessment scenario in order to ensure that the proposals are appropriate, and do not prohibit future development of the wider Northern Fringe in line with the SPD.

Trip Rates

As the sustainable transport objectives of the SPD are fundamental to facilitate development of the Northern Fringe within a congested highway network, an appropriate multi-modal assessment of the development proposals at each stage of development is required. However, only vehicular trip rates appear to have been provided.

Until a multi-modal assessment is provided, it is not possible to determine whether the proposed sustainable transport objectives or mode shift targets for each land use are sufficient as the impacts of non-car modes have not been assessed. It is also unclear what sustainable transport infrastructure is proposed at each development stage, and when they will be completed. This has previously been highlighted at the scoping stage in points 3 and 7 of the AECOM Response to Scoping Note (April 2014).

Residential

The AECOM vehicular trip rates provided in a response to the initial Scoping Note have been applied to the 1st phase of development (150 dwellings). However, lower trip rates have been applied by CTS to the Fonnereau Village and Wider Northern Fringe development.

Whilst it is acknowledged that vehicular trip rates are likely to reduce as the potential for the internalisation of trips increases, it is not currently possible to determine whether the modal shift necessary to facilitate the proposed reduction in vehicular trip rates is appropriate as it is unclear what sustainable transport improvements are proposed and when they will be implemented.

Further clarification of the multi-modal trip rate assessments, with supporting evidence for any modal shifts applied are therefore required for each scenario assessed. This has previously been highlighted at the scoping stage in point 4 of the AECOM Response to Scoping Note (April 2014).

Clarification is also sought as to whether a primary school will be provided on site. If there is no firm commitment to the provision of a primary school on the central site, the site will need to be assessed with and without the internalisation of trips currently applied.

Retail - Foodstore

The relative 'inward' or 'outward' facing of the retail element of the development proposals is likely to change as the build-out of the wider Northern Fringe progresses. For example, upon full build-out of the Fonnereau Village site, 815 dwellings are currently proposed, whereas the full build-out of the wider Northern Fringe as outlined in the SPD is 3,500 dwellings.

The potential for internalisation of retail trips is much smaller for the Fonnereau site in isolation (815 dwellings) than for the full build-out of the wider Northern Fringe (3,500 dwellings). However, the CTS TA appears to only consider a single internalisation of retail trips based on 3,500 dwellings. This is only relevant to the assessment of the full build out of the Garden Suburb, but in order to understand the development impacts in isolation the buildout of the proposals as they stand, in the absence of the rest of the Garden Suburb development area needs to be assessed.

As access to the central parcel from the northern and eastern parcels within the Northern Fringe are dependent on new railway bridges (road and pedestrian) to the north, and the crossing of Westerfield Road to the east, the potential for internalisation between these sites is dependent on the implementation of new sustainable transport infrastructure, as outlined in the SPD.

In order to build a case for the delivery of this new sustainable transport infrastructure, the CTS TA will need to assess the multi-modal impacts of the proposed foodstore both 'with' and 'without' proposed sustainable transport infrastructure. This is required to identify when any new infrastructure will be

needed, and to ensure that the wider Northern Fringe is developed in a co-ordinated way as identified in the SPD, and not in a hap-hazard, piecemeal fashion. Further information is therefore requested.

There is a discrepancy in the reported proposed foodstore vehicular trip generation presented in Table 9.7 of the CTS TA, which implies a gross floor area of approximately 3330sqm based on the trip rates presented in the CTS Scoping Note. This varies from the development quantum listed in the CTS Transport Assessment. Up to 4,540sqm of A1 retail is being applied for, with 1,700sqm of convenience store outlined in the development proposals, and a 2,400sqm foodstore/ supermarket is outlined in Tables 1.1 and 1.2 of the 'Town Centre Uses Statement'.

Clarity is required regarding what is proposed, and what is assessed so that the development impacts can be fully understood.

This has previously been highlighted at the scoping stage in point 5 of the AECOM Response to Scoping Note (April 2014).

Non-Food Retail

The proposed non-food retail vehicular trip generation presented in Table 9.8 of the CTS TA, implies a gross floor area of approximately 2018sqm based on the trip rates presented in Table 1 of the CTS Scoping Note.

Clarification is therefore sought as to the quantum of non-food retail being proposed/ assessed, as up to 1,320sqm of other retail and service uses are outlined in the development proposals. This has previously been highlighted at the scoping stage in point 6 of the AECOM Response to Scoping Note (April 2014). A multi-modal assessment is also required in order to determine the impact on local transport networks.

Other Uses

Further details of the multi-modal trip generation characteristics of other land uses proposed as part of the outline application are not provided within the CTS TA. Further information on the trip rates and resultant trip generation for the other land uses proposed is required in order to consider the suitability of access proposals. This has previously been highlighted at the scoping stage in point 7 of the AECOM Response to Scoping Note (April 2014).

Other land uses for which no information has been provided in the CTS TA include:

- financial services (A2);
- restaurants, pubs and takeaways (A3, A4, A5);
- business uses (B1a);
- dwellings and institutional residential uses (C2,C3);
- non-residential institutions (including health centre (D1));
- leisure uses (D2);
- reserve site for a primary school (D1); and
- proposed country park/ green infrastructure.

Trip Distribution and Assignment

In order to consider the impact of the proposed trip generation on local transport networks, a multi-modal assessment is required to consider whether the existing transport networks can accommodate any increase in demand, and that any proposed mitigation can support the development proposals in isolation, without compromising development of the wider Northern Fringe.

The proposed trip generation needs to be assigned to the assessment cordon in line with the distribution of trip generators/ attractors in the local and wider area. However, as no development flow plots, defined

assessment cordon, or multi-modal assessment has been provided, it is not possible to determine the impact of the proposed trip generation on local transport networks.

It is understood that a Paramics model (reviewed under a separate appointment) has been developed as a basis for assessment. However, no details of the distribution/ assignment of proposed trips (vehicular or multi-modal) have been provided as part of the CTS TA. Notwithstanding this, further consideration has been given to the vehicular trip distribution methodology applied to each land use.

Residential

No assessment cordon or flow plots for the vehicular trip generation of residential land uses have been provided. Therefore it is not possible to determine whether an appropriate assignment has been applied, or where any impacts occur. This has previously been highlighted at the scoping stage in point 9 of the AECOM Response to Scoping Note (April 2014).

Retail - Foodstore

The Town Centre Uses Statement considers the capacity and trade diversion of the proposed retail uses in relation to the 3,500 dwellings of the full build-out of the wider Northern Fringe. This analysis showed that the proposed convenience retail uses could support the full build-out of the Northern Fringe, with some headroom for further expenditure to be capitalised by other existing retail locations.

However, paragraph 4.6 goes on to state that “we recognise that in reality some people would shop at various locations: some people living in the Northern Fringe urban extension would shop at locations outside the Northern Fringe and some living outside would shop at the new convenience floorspace.”

Paragraph 4.7 states that “We anticipate that trade would be largely diverted to the new store from existing bigger stores in the vicinity of the Northern Fringe. These same stores will capture new trade from new residents of the urban extension in similar proportions, reflecting the fact that whilst ease of access to stores is an important consideration for many shoppers, others have a preference for particular operators.”

Appendix 13 and 14 of the CTS TA provide some vehicular flow plots for diverted retail trips from the Valley Road corridor, and pass by retail trips from Westerfield Road. However, the Town Centre Uses Statement suggests a much wider diversion of retail trips from existing supermarkets in Ipswich. This suggests that the proposed retail will be far more externally oriented or ‘outward facing’ upon build-out of the 815 dwellings on the proposed Fonnereau site, than for the 3,500 dwellings in the wider Northern Fringe.

Clarification is therefore requested as to the extent of diversions from existing stores at each stage of development and consistency is required with the Town Centre Uses Statement. This is necessary to determine the impact of any diverted vehicular trips within a defined assessment cordon and to consider whether the proposed mitigation is appropriate to accommodate these trips.

It is not clear how primary retail trips have been assigned, or how people will travel to the retail units from the wider Northern Fringe. It is noted that the Paramics traffic model has been used and is being reviewed under a separate appointment to this review of the CTS TA. However, details of the proposed assignment and distribution of proposed trips at each development phase is necessary to determine the impact on transport networks in line with any sustainable transport improvements proposed. This has previously been highlighted at the scoping stage in point 10 of the AECOM Response to Scoping Note (April 2014).

Non-Food Retail

In order to determine the impact of the proposed non-food retail land uses on local transport networks, details of the proposed assignment and distribution of trips (related to the Retail Impact Assessment) along with any sustainable transport improvements is required at each development phase. The

provision of flow diagrams would help to clarify what has been modelled. This has previously been highlighted at the scoping stage in point 10 of the AECOM Response to Scoping Note (April 2014).

Other Uses

Further clarification of the proposed ancillary service use areas was requested at the scoping stage. However, limited information is provided within the CTS TA, therefore the impact of these land uses cannot be fully understood.

It will be necessary to understand what is ancillary to the Fonnereau Village site, and what is ancillary to the wider Northern Fringe, as the multi-modal movements between the development parcels of the wider Northern Fringe need to be understood in order to secure appropriate sustainable transport options to serve them.

Other land uses for which no information has been provided in the CTS TA include:

- financial services (A2);
- restaurants, pubs and takeaways (A3, A4, A5);
- business uses (B1a);
- dwellings and institutional residential uses (C2,C3);
- non-residential institutions (including health centre (D1));
- leisure uses (D2); and
- reserve site for a primary school (D1).

Future Modal Shift and Travel Plan

A Northern Fringe Framework Travel Plan should be intrinsically linked to the CTS TA and demonstrate mode-share targets required to ensure that transport networks can accommodate any trips generated by the development proposals at each stage. These will need to be linked to the implementation of committed sustainable transport objectives and proposed mitigation.

Further information is therefore requested as it is currently not possible to determine the multi-modal impacts of the development proposals, or the modal shift potential following the implementation of sustainable transport objectives. This has previously been highlighted at the scoping stage in point 11 of the AECOM Response to Scoping Note (April 2014).

Description of Access proposals

Four access locations are proposed within the CTS TA with comments for each location detailed below under separate headings. However, in order to consider any safety issues, the junction mitigation proposals should be accompanied by a Stage 1 Road Safety Audit.

Priority Junction Access onto Westerfield Road (Plan 9)

- No pedestrian crossing facilities shown;
- Pedestrian footways terminate on the western side of Westerfield Road;
- Footways of 2m are shown, however no facilities provided for cyclists;
- Visibility splay is required to determine whether the access location is appropriate;
- Plan 3B shows a further priority junction into the residential development for which full planning is sought, however it is unclear if appropriate separation between the junctions is provided;
- No details on onward connectivity of access road;
- No capacity analysis to demonstrate that the form of junction is appropriate.

Signalised Junction onto Westerfield Road (Plan 10)

- Not all vehicle movements have been considered by swept path analysis;
- 3m southbound lane on Westerfield Road is narrow (northbound lane is 4.2m)

- Footways of 2m are proposed, but no provision of cyclist facilities;
- No pedestrian crossings are provided on any arm of the junction;
- Swept path analysis shows that it is very tight for buses to pass;
- Visibility splays are required to demonstrate that the location of the junction is appropriate;
- Unclear how bus priority will work, unclear priority raises safety concerns.

Bus Access onto Westerfield Road (Plan 12)

- Location of bus egress is unclear;
- No details of pedestrian crossings in the vicinity.

Priority Junction Access onto Henley Road (Plan 13)

- Access for pedestrians, cyclists and emergency vehicles is proposed, however there are no details of any access controls provided to prevent use by other vehicles;
- 2m wide footways are provided with no provision for cyclists. Clarification is sought as to whether this link will incorporate an on or off-carriageway shared surfaces for pedestrians/ cyclists;
- A two-way priority arrangement is shown which prioritises vehicular use;
- No pedestrian crossing facility is shown;
- Swept paths show that buses would have to use all available road space to exit onto Henley Road, raising safety concerns;
- Visibility splays are required to demonstrate that the location of the junction is appropriate;
- If this route is to be bus only, then justification for the need for this access with consideration of future bus demand along this route should be demonstrated, with a commitment to the provision of a proposed form of access control.

No details have been provided within the CTS TA for development proposals relating to the following access routes/ connections identified within the SPD, therefore further information is requested to demonstrate that the access proposals are in line with the SPD:

- Connection to Valley Road via 'Fonnereau Avenue';
- Connection to Valley Road via Picton Avenue;
- Form of access to be provided to the Ipswich School site to the south;
- Pedestrian/ cycle connections to the eastern development parcel within the Northern Fringe;
- Pedestrian/ cycle connections to the northern development parcel to the north of the railway line;
- Pedestrian/ cycle connections to Ipswich Town Centre/ other local amenities;
- Connections to the country park to the north of the site;
- Pedestrian/ cycle connections to the district centre.
- Pedestrian/ cycle routes to demonstrate safe routes to school at each stage of development, with a detailed accident analysis along these routes. This has previously been highlighted at the scoping stage in point 12 of the AECOM Response to Scoping Note (April 2014).

It is therefore currently unclear if the development proposals are safely deliverable, and a number of proposals appear to compromise sustainable transport modes. A clear access strategy for each development phase will need to be identified to provide justification for any target modal shift, and to demonstrate that development of the wider Northern Fringe is not compromised to allow the development impact to be fully understood.

Traffic Impact

Selected outputs from the Paramics model (reviewed under a separate appointment) are presented within the CTS TA, which highlights links where the impact of the development proposals results in an increase in journey times greater than four minutes per kilometre.

These results show significant journey time increases along some routes, indicating significant capacity issues and potential re-routing/ rat-running. Further details are requested of proposed vehicular flows generated on these links, and the operation of relevant junctions on routes significantly affected, to determine the extent of impact and appropriateness of proposed mitigation. The establishment of a clear assessment cordon would help to address this.

Capacity Assessments

In order to consider any safety issues, the junction mitigation proposals should be accompanied by a Stage 1 Road Safety Audit. Further information is also requested to demonstrate how all modes are catered for at the proposed junctions, with details of what routes they will connect into at each development stage.

Notwithstanding this, an initial review of the capacity assessments provided in the CTS TA is considered for each junction below.

Proposed Priority Access on Westerfield Road

No capacity assessments are provided for the proposed priority junction site access, which forms part of the full application for the site. A PICADY assessment of the proposed junction will need to be submitted to ensure that the junction can operate safely and can accommodate the development proposals.

Proposed Priority junction on Henley Road

As this is a proposed bus only link with allowance for pedestrians and cyclists, clarification of future bus demand along this route should be demonstrated, with a commitment to the provision of a proposed form of access control.

Proposed Signalised Access on Westerfield Road

A LINSIG capacity assessment has been undertaken for this junction. However, the LINSIG link structures do not reflect the junction proposals detailed within the CTS TA (Plans 10 and 11). The results of the model outputs also do not match those presented within the CTS TA.

Clarification of the proposed junction layout and supporting LINSIG capacity assessments are therefore requested with vehicular flow plots to support each development phase. This is required in order to determine whether the access proposals are suitable, and to ensure that the delivery of the proposals do not compromise future development of the wider Northern Fringe.

Proposed Mitigation at Valley Road/ Westerfield Road Roundabout

The junction improvements appear to have been designed to maximise vehicular capacity alone, with little regard for safe routes for cyclists, pedestrian crossings, or bus priority. An enlarged roundabout option has been considered, in contrast to the previously considered signalised option with enhanced cycle and pedestrian facilities as outlined in the SPD. The proposed amendments to the existing roundabout include the reduction of existing pedestrian and cycle facilities and do not include the existing pedestrian crossing situated on Valley Road East.

The CTS TA states that this change was made in response to negative feedback received on a signalised option for the junction during public consultation however justification for the provision of reduced facilities for pedestrians, cyclists, bus priority, and traffic management from those set out in the SPD is requested.

Capacity assessments for the roundabout have been undertaken using ARCADY in 2027 with full application development (with and without development of 300 dwellings on the Ipswich School site which is outside of the application boundary). However, there is no 'without development' baseline

assessment. Therefore, it is not possible to determine the impact of the proposed development in each scenario.

Notwithstanding this, the assessments show that the existing Valley Road/ Westerfield Road junction would operate significantly over capacity without mitigation. However, the mitigation proposed by CTS in Plan 15 raises a number of safety concerns including:

- On-carriageway cycle lanes at lane merges on the exit to the roundabout;
- Widening of carriageway to accommodate additional eastbound and westbound lanes reduces existing footpath width below 2m;
- Additional lanes and increased traffic volumes will make it more difficult for pedestrians to cross, and appear to have been provided to the detriment of bus priority facilities;
- Cycle lanes are narrow;
- Cycle facilities are not provided from the development access (via Westerfield Road from the north);
- Valley Road is shown to widen through the existing signalised crossing, which suggests this facility is removed to the detriment of pedestrians;
- It is not clear whether existing access junctions from the residential spurs off Valley Road can maintain sufficient visibility/ corner radii to accommodate the widening.

Further justification of the development proposals and further capacity assessments are therefore requested to demonstrate that the proposed mitigation is in line with the SPD.

Proposed Mitigation at Valley Road/ Henley Road/ Dale Hall Lane Signalised Junction

No capacity assessments are provided for this junction, therefore it not possible to determine whether the proposals can provide any increase in capacity necessary to serve the development proposals, or identify any whether the proposals will restrict the potential for development of the wider Northern Fringe.

Plan 16 shows that CTS propose to widen the carriageway to accommodate a new westbound lane. However, without the provision of vehicular flow plots or capacity assessments, it is not possible to determine why this is necessary, or whether the proposed mitigation is adequate to address any capacity constraints.

Notwithstanding this, a number of safety concerns have been identified with the proposals, including:

- Cycle lanes and advanced stop lines have been removed;
- No traffic islands are provided;
- Narrow footpaths are provided (below 2m) with no provision for cyclists;

As with other junctions, the proposed improvement scheme does not account for all modes, and appears to have been designed to maximise vehicular capacity alone, with little regard for safe routes for cyclists, or pedestrian crossings. Further justification for the proposals, along with supporting capacity assessments are therefore requested to demonstrate that the proposals are in line with the SPD.

Other Junctions

No capacity assessments are provided at other neighbouring junctions, or flow plots to show the development traffic impact on these junctions. Therefore it is not possible to determine whether the development impact will be limited to the junctions where improvements have been suggested or whether there will be a wider impact.

Consideration of the Northern Fringe Development

No details of a multi-modal assessment, or anticipated modal shift following the implementation of any sustainable transport objectives, are included within the CTS assessment of the wider Northern Fringe development.

A conceptual future access arrangement is provided in Plan 17 of the CTS TA which is assumed to represent the possible access arrangements to serve Red House Village (eastern development parcel). This arrangement would be delivered by other applicant, requiring a significant amount of land within the eastern development parcel, which is outside both the application boundary and existing highway boundary. As this land is outside the application boundary and existing highway boundary, the conceptual proposals are not considered to be deliverable by the applicant, and show an unclear and contradictory arrangement and does not demonstrate that an appropriate form of access to the Eastern development parcel can be delivered.. Therefore this arrangement is not considered to be appropriate for future capacity testing.

In addition, the conceptual proposals outlined in Plan 17 introduce significant severance between the central and eastern development parcels, particularly for cyclists and pedestrians. Such an arrangement is therefore not considered to be in line with local policy. In order to consider any safety issues, any proposals used for future assessments should be accompanied by a Stage 1 Road Safety Audit.

No assignment or capacity assessments have been detailed or provided within the CTS TA, however some consideration of future journey times across the Paramics network (not reviewed within this note) are provided. The results presented in Tables 11.1 and 11.2 of the CTS TA show that full development of the Northern Fringe has a significant impact on journey times during both AM and PM peak periods in the 2027 'full development' scenario. Whilst it is acknowledged that some adverse impacts are to be expected given the congested nature of the existing highway network, this indicates that some junctions are operating significantly over capacity, with likely wider re-routing of trips. However, as no development flow plots or detail is provided in this regard, the impact of the development proposals is unclear.

Therefore it is not possible to determine how the proposed development will impact future development of the wider Northern Fringe without further multi-modal assessments and junction capacity assessments.

Conclusion

This review of the CTS TA, has found that the issues highlighted at the scoping stage of assessment in AECOM's Response to Scoping Note (April 2014) have not been addressed. It is therefore not possible to determine the multi-modal impact of the development proposals, or whether the proposed access arrangements, mitigation, and sustainable transport initiatives are appropriate to serve the proposed development.

Whilst it is acknowledged that some assessments within the TA are based on a Paramics model being reviewed under a separate appointment, this initial review has considered the proposals and assessments as presented in the CTS TA without prejudice.

Notwithstanding this, the scenarios considered and assessment results in the CTS TA do not fully assess the development impacts. There are discrepancies between what has been assessed and what is being applied for. Further analysis required and issues have been identified with junction assessments undertaken. There is insufficient information to clearly determine the development impacts, and that of the mitigation proposals put forward. The development proposals, as they stand, including proposed mitigation, compromise existing transport networks and potentially development of the wider Northern Fringe in a sustainable way. Overall there is insufficient emphasis on promoting

sustainable access to and from the proposed development, with the dominant focus on promoting highway access to the development.

Further assessment and clarification is therefore requested as set out in this note, and the earlier Scoping Note Response (April 2014) in order to provide clear understanding of the development proposals and the associated impacts.

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