Appendix Z: TEMPro Factor Email Correspondence

From: Martin Hubbard
To: Patrick Blake; Ali Memory
Cc: Harrison, Liz; Jamie Loxley; Matthew Thomas; Jon Williams; Dan Watts; AdamConnor; beata.ginn; Planning SE; Colclough, Joseph; Alice Twyning
Subject: RE: 25745 RE: NH/25/12107 O/25/99506 Navigator Quarter, Eastleigh, SO18 2NL - Additional modelling files
Date: 29 September 2025 10:35:25
Attachments: image001.png
TEMPRO NRTP 2022 Comparison_Issued.xlsx

Thanks Patrick,

So just to confirm – we do not plan to re-calculate flows that feed into the M27 J5 signalised junction capacity modelling assessment, as you are happy with TEMPro methodology.

However, for the merge and diverge assessments we will apply the factors shaded in green in the attached spreadsheet (Original TA motorway factors to mainline and A Road for slips).

If you could confirm it would be appreciated.

Kind regards,

Martin

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From: Patrick Blake <patrick.blake@nationalhighways.co.uk>
Sent: 25 September 2025 14:04
To: Martin Hubbard <Martin.Hubbard@steergroup.com>; Ali Memory <Ali.Memory@steergroup.com>
Cc: Harrison, Liz <liz.harrison@eastleigh.gov.uk>; Jamie Loxley <j.loxley@msa-architects.co.uk>; Matthew Thomas <m.thomas@msa-architects.co.uk>; Jon Williams <Jon.Williams@steergroup.com>; Dan Watts <Dan.Watts@steergroup.com>; AdamConnor <AdamConnor@blocgroup.org>; beata.ginn <beata.ginn@nationalhighways.co.uk>; Planning SE <planningse@nationalhighways.co.uk>; Colclough, Joseph <joseph.colclough@jacobs.com>
Subject: 25745 RE: NH/25/12107 O/25/99506 Navigator Quarter, Eastleigh, SO18 2NL - Additional modelling files

Hello Martin.

Thank you for the growth factor material supplied on 12th September 2025 and the email trail with HCC concerning TEMPro assumptions.

National Highways would agree with HCC that the re-doing of the local junction modelling using revised forecast demands (i.e. based on NRTP 2022 Core growth factors) is unnecessary. The M27 J5 on/off slips CD 122 assessments requested by National Highways on 3rd September 2025 should use the TA A road factors for off/on slip road flows (i.e. 1.0122 for 2025-2028 and 1.0657 for 2025-2036) and TA Motorway factors to factor M27 mainline flows (i.e. 1.0118 for 2025-2028 and 1.0614 for 2025-2036).

National Highways is curious as to why benchmarking of TEMPro flows against SRTM DS3 flows was not undertaken as suggested in paragraph 6.6 of the 'Transport Scoping Report' (December 2024). National Highways acknowledges that it said (in an email on 16th December 2024) that it would take HCC's lead on whether benchmarking was necessary and whether DS3 is the correct scenario. However, (i) the location of M27 J5 (where different movements could very easily be subject to significantly different growth rates) and (ii) the differences between the TA Motorway and NRTP 2022 Core Motorway Region factors more specifically suggest such benchmarking would serve as a useful forecast flow realism check.

We would be glad to discuss the above.

Kind Regards

Patrick

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From: Martin Hubbard <Martin.Hubbard@steergroup.com>
Sent: 17 September 2025 10:05
To: Patrick Blake <patrick.blake@nationalhighways.co.uk>; Ali Memory <Ali.Memory@steergroup.com>
Cc: Harrison, Liz <liz.harrison@eastleigh.gov.uk>; Jamie Loxley <j.loxley@msa-architects.co.uk>; Matthew Thomas <m.thomas@msa-architects.co.uk>; Jon Williams <Jon.Williams@steergroup.com>; Dan Watts <Dan.Watts@steergroup.com>; AdamConnor <AdamConnor@blocgroup.org>; Beata Ginn <beata.ginn@nationalhighways.co.uk>; Planning SE <planningse@nationalhighways.co.uk>; Joseph Colclough <joseph.colclough@jacobs.com>
Subject: RE: 25630 RE: NH/25/12107 O/25/99506 Navigator Quarter, Eastleigh, SO18 2NL - Additional modelling files

Thanks Patrick,

We will review. Please can you advise on when you will be able to provide a response on the TEMPro factors email I issued on Friday (see attached).

We would appreciated a response on those as soon as possible please.

Kind regards,

Martin

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From: Patrick Blake <patrick.blake@nationalhighways.co.uk>
Sent: 17 September 2025 09:57
To: Ali Memory <Ali.Memory@steergroup.com>
Cc: Harrison, Liz <liz.harrison@eastleigh.gov.uk>; Jamie Loxley <j.loxley@msa-architects.co.uk>; Matthew Thomas <m.thomas@msa-architects.co.uk>; Jon Williams <Jon.Williams@steergroup.com>; Martin Hubbard <Martin.Hubbard@steergroup.com>; Dan Watts <Dan.Watts@steergroup.com>; AdamConnor <AdamConnor@blocgroup.org>; beata.ginn <beata.ginn@nationalhighways.co.uk>; Planning SE <planningse@nationalhighways.co.uk>; Colclough, Joseph <joseph.colclough@jacobs.com>
Subject: 25630 RE: NH/25/12107 O/25/99506 Navigator Quarter, Eastleigh, SO18 2NL - Additional modelling files

Hi Ali

Please find below our comments on the M27 J5 LinSig model you provided:

- Lane 5/1 should arguably be a short lane since it is only around 90m in length. However, given the relatively low levels of queuing on this arm converting from the current 'long' lane to a 90m short lane is unlikely to have any material impact on the model.
- Saturation flows used comprise a mix of mostly directly entered with some using RR67. The directly entered discharge rates are slightly higher (some 2,100-2,200 PCUs/hr) than normally expected (around 2,000 PCUs) for this type of site, although the values used appear to be supported by saturation flow survey information supplied with the model (16367 Southampton Sat Flows Site 4.xlsx). The saturation flows are therefore probably acceptable, but the methodology for the setting of saturation flows, including reference to the survey, needs to be detailed in the modelling technical note.
- Lane 1/1 which uses RR67 to estimate saturation flow has no radius specified for the ahead movement even though vehicles proceeding ahead would be passing through the same bend as those turning left. Please check and correct as appropriate.
- All internal lanes with signal-controlled upstream feeds should be set to 'Ignore Random Delay'.
- The give-way parameters for lane 4/2 include a Maximum Flow of 1439 PCUs/hr which seems high for single lane entry to a roundabout (and also happens to be the same as the default setting for give-way behaviour as opposed right turn situations). Please check if this is correct. Also, it would be helpful if the rationale for the setting of give-way parameters were explained in the modelling technical note.
- Controller parameter values used matches the controller configuration information provided with the model.
- It is noted that there are Green Time adjustments of between -1 and -2 seconds on most lanes. The modelling technical note does not mention these or provide an explanation and rationale for their use in the model. Please can an explanation for the use of these adjustments be provided and set out in the modelling technical note?
- Spot checks suggest that the surveyed traffic flows do not match the flows used in the model, with those in the latter slightly higher (e.g. movement from Zone A 'A335' to M27 East in the 7:30-8:30am hour is 361 PCUs in the survey but 375 PCUs in the model). What is the reason for the discrepancy?
- All modelled scenarios use a cycle time of 80 seconds. This appears to be supported by traffic signal timing survey information supplied with the model (16367 Southampton Signals Times Survey Site 4.xlsx).
- Base model calibration and validation is thorough with comparisons of queue lengths and Degrees of Saturation provided in the modelling technical note. These show a reasonable correlation in both

cases suggesting that the model is generally sound. However, queue length comparisons for the A335 (South) Stoneham Way arm appear to be omitted from Tables 4-15 and 4-16. Why is this? Some form of check on this approach is important given (1) the apparent high levels of queuing on this arm evident in the queue survey information provided (16367 Southampton Queues Site 4 only.xlsx); and (2) the need to ensure that assume give-way parameters are set accurately (especially given the potential error in lane 4/2 noted above).

- Table 5-1 sets out the modelled forecast scenarios. However, the modelling technical note does not provide any detailed information regarding growth factors applied, proposed development traffic flows and so on. This should be provided or at least some reference given to other documentation which provides details of the forecasting assumptions. Traffic flow diagrams of base and future turning movements would also be useful so that the input of traffic into the models can be checked.

Any queries, please let us know.

Thanks

Patrick

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From: Ali Memory <Ali.Memory@steergroup.com>
Sent: 13 August 2025 09:34
To: Patrick Blake <patrick.blake@nationalhighways.co.uk>; Beata Ginn <beata.ginn@nationalhighways.co.uk>
Cc: Harrison, Liz <liz.harrison@eastleigh.gov.uk>; Jamie Loxley <j.loxley@msa-architects.co.uk>; Matthew Thomas <m.thomas@msa-architects.co.uk>; Jon Williams <Jon.Williams@steergroup.com>; Martin Hubbard <Martin.Hubbard@steergroup.com>; Dan Watts <Dan.Watts@steergroup.com>; AdamConnor <AdamConnor@blocgroup.org>
Subject: FW: NH/25/12107 O/25/99506 Navigator Quarter, Eastleigh, SO18 2NL - Additional modelling files

Good morning,

Hope this email finds you well. We were forwarded on the NH comments below/attached regarding the Navigator Quarter scheme. Many thanks for taking the time to pull these together.

We will explore the comments in further detail, however for the meantime I have collated the requested additional information (to address comments 29 – 33) in the OneDrive link here: Documents issued to NH. Please let me know if you have any access issues or believe more information is required.

We will come back to you shortly regarding the below:
Comment ref 32: *Five model links for J06 are missing from the table (9/2 Southern Circulatory Right Ahead, 9/3 Southern Circulatory Right, 10/1 Western Circulatory Ahead, 10/2 Western Circulatory Right Ahead and 10/3 Western Circulatory Right).*

Kind regards
Ali

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From: Harrison, Liz <Liz.Harrison@eastleigh.gov.uk>
Sent: Monday, August 4, 2025 12:40 PM
Subject: FW: NH/25/12107 O/25/99506 Navigator Quarter, Eastleigh, SO18 2NL

From: Patrick Blake
Sent: 01 August 2025 16:15
To: Planning @ Eastleigh Borough Council ; Harrison, Liz
Cc: Planning SE ; 'transportplanning@dft.gov.uk' ; Spatial Planning ; Beata Ginn; Joseph Colclough; Doyle, Simon/LON
Subject: NH/25/12107 O/25/99506 Navigator Quarter, Eastleigh, SO18 2NL

For the attention of: Eastleigh Borough Council (FAO Liz Harrison)

Site: Navigator Quarter, Eastleigh, SO18 2NL

Proposal: Hybrid Planning Application - Outline application for development of the land adjacent to Southampton Airport to provide employment floorspace of up to 92,000 sqm (GIA) within Use Classes E(g) (ii & iii), B2 and B8 with ancillary offices and areas for service yards, car parking, landscaping, ancillary buildings and associated activities, and access from Wide Lane (all matters reserved except for access). Full planning application for initial infrastructure works and construction of new access road including site levelling and other engineering works. (EIA development)

Application Number: O/25/99506

Our Reference: NH/25/12107

Dear Liz

I refer to your initial letter dated 18 July 2025 consulting us in relation to the above application.

National Highways has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the strategic road network (SRN). The SRN is a critical national asset and as such National Highways works to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

In the case of this development proposal, our interest is in the M27.

Please see attached our formal response. In addition please see below our initial technical review of submitted information:

NAVIGATOR QUARTER, LAND ADJACENT TO SOUTHAMPTON AIRPORT, ENVIRONMENTAL STATEMENT (VOLUME 3)					
TECHNICAL ANNEX G. TRANSPORT, HYBRID PLANNING APPLICATION, JUNE 2025					
	Section		Text as relevant		NH comments
1 Introduction	*Overview*	*1.1*	*Steer is instructed by blocwork (Eastleigh) LLP and Southampton International Airport Limited (SIAL) ("the Applicant") to prepare this Transport Assessment (TA) in relation to the Proposed Navigator Quarter, as part of the Solent Freeport (hereafter referred to as 'the Site' or 'the Proposed Development'). The Site is located to the north of Southampton Airport within Eastleigh. A Site location plan is provided at Figure 1-1 at the rear of this chapter.*	1	SIAL's role as Applicant suggests that the proposed development could very likely have an airport-related element which the site is ideally located to fulfil. However, that won't necessarily reduce the potential traffic impact on the broader highway network if, say, the site accommodates air-related parcel/goods movements. With the exception of air-to-air transfer, parcels/goods travelling through the airport will still use the highway network to travel to and from the airport.
	Site Planning Designations	*1.15*	*The allocation is subject to the following criteria:* *• Vehicular access to the Site shall be provided to the satisfaction of the Highway Authority.* *• The design and layout of new development shall not preclude but shall allow for the provision of a new Chickenhall Lane Link Road (CLLR), with an alignment as indicated on the policies map or as agreed with the Borough Council and the Highway Authority.* *• Where there is a reasonable prospect of a full link road being viable and deliverable, development proposals should make a contribution towards the full road link proportionate to the traffic impact of that proposal and of any contributions/funding the applicant had already made to the road. Parts of this road should be constructed as part of the new Site access arrangements.* *• There shall be no adverse impact on the sensitive nature conservation interests of the Itchen Valley or the landscape setting of the Itchen Valley Country Park and the Itchen Way. Development on any part of the Site should not cause or increase adverse impacts on the River Itchen Site of Special Scientific Interest (SSSI) or Special Area of Conservation.* *• Land owned by Network Rail within the Itchen Valley Site of Special Scientific Interest shall be transferred to the Borough Council.* *• A Site level Habitats Regulation Assessment is required to demonstrate how this Site will be delivered without adverse effect on any European Site.*	2	This does not appear to require the proposed development to assess a traffic impact scenario assuming a new Chickenhall Lane Link Road. It only requires that *'[the] design and layout of new development … not preclude … the provision of a new Chickenhall Lane Link Road'* and *'the development proposals … make a contribution towards the full link road proportionate to the traffic impact'* and that *'[p]arts of [the Link Road] … be constructed as part of the new Site access arrangements'.*
		1.16	*Policy E9 'Southampton Airport' sets out that:* *• "The Borough Council will continue to work with the operators of Southampton Airport to promote its viability, and will support the expansion of the airport's operations and related development provided that the proposals:* *– are necessary for economic growth within the Borough or the improvement of airport operational efficiency, and passenger safety and convenience;* *– would not physically or visually diminish the settlement gap between Eastleigh and Southampton;* *– are supported by transport assessments which confirm local network capacity and are consistent with the airport operators' agreed Airport Surface Access Strategy; and* *– will not unacceptably increase noise and other environmental impacts on the Borough's residents* *• Approximately 19.5 hectares of land identified to the northeast of the runway as defined on the policies map may be developed for airport-related activities and/or approximately 78,000 sqm of employment uses in use classes B2, B8 or E(g), subject to the following criteria:* *– any new vehicular access between the site and the public highway shall be provided to the satisfaction of the Highway Authority.* *– The design and layout of new development shall not preclude but shall make allowances for the provision of a new Chickenhall Lane link road, with an alignment as indicated on the policies map or as agreed with the Borough Council and the Highway Authority;* *– where there is a reasonable prospect of a full link road being viable and deliverable, development proposals should make a contribution towards the full link road proportionate to the traffic impact of that proposal and of any contributions/funding the applicant had already made to the road. Parts of this road*		

			should be constructed as part of the new site access arrangements; and *– there shall be no adverse impact on the sensitive nature of conservation interests of the Itchen valley or the landscape setting of the Itchen Valley Country Park and the Itchen Way. Development on any part of the site should not cause, or increase adverse impacts on the River Itchen Site of Special Scientific Interest or Special Area of Conservation"*		
2 Policy Context	*Emerging Eastleigh Strategic Transport Study (2015 and 2025)*	*2.32*	*Chickenhall Lane Link Road (CLLR)* *The scheme as set out in the strategy would involve a new bridge over the A335 and Southampton-Eastern railway lines, as well as a new bridge over the Eastleigh-Hedge End railway line, passing to the north of the Airport runway.*	3	How much can the proposed Chickenhall Lane Link Road (CLLR) be expected to affect the trip generation of the proposed development and potential flows on the SRN? Would it possibly (i) heighten the accessibility of the site thereby maximising possible traffic generation possibilities and (ii) increase the possibility of development traffic routing to and from the north via M3 J12 and to and from the west via M3 J13?
		2.33	*The strategy noted that whilst it remained a long-held ambition of the community and Council, there are significant issues with the delivery of the scheme related to high infrastructure costs and complex engineering.*		
		2.34	*The route alignment as presented in the strategy is shown in Figure 2-1.*		
		Figure 2-1	*Locations of Potential Highway Mitigation Schemes*		
		2.35	*Although Steer has not seen the emerging Draft Strategic Transport Study that is set to undergo consultation later this year, it is understood that HCC are likely to be moving away from supporting the CLLR as a relief road, in favour of prioritising a sustainable and active travel mode approach in accordance with HCC's LTP4. Notwithstanding this, the proposed development makes an allowance for the CLLR within its design parameters, so that land is safeguarded for others to complete this link in the future, in line with the Local Plan Policy.*		
3 Existing Site, Accessibility and Transport Conditions	*Strategic Road Network (SRN)*	*3.28*	*The M27 and its junctions are managed by National Highways (NH). The M27 J5 (Stoneham Interchange) is 2.7km southwest of the Site and is the main link to the SRN. All vehicles travelling between Southampton Airport and the M27 J5 would route via the Spitfire Roundabout and the A335 via the A335 Wide Lane roundabout.*	4	See 3 above for routing possibilities if the proposed CLLR was to be delivered.
	Pedestrian and Cycle Access	*3.56*	*Existing Site Access* *Pedestrian and cycle access is currently limited due to the Site being on undeveloped land.*	5	Pedestrian and cycle access isn't simply limited by the site being on undeveloped land; railway lines arguably present the biggest challenges.
	Itchen Way	*3.73*	*The Itchen Way Navigation Heritage Trail (Itchen Way) passes to the east of the Site, along the western side of the River Itchen. The trail is a long-distance walking and cycling route which follows the River Itchen between Winchester in the north to Swaythling in the south. It is understood that the current path along the River Itchen adjacent to the Site is difficult to access during winter conditions (i.e. susceptible to flooding and is overgrown with vegetation).*	6	Is the Itchen Way Navigation Heritage Trail a plausible walk and cycle option - at least at the moment? See paragraphs 5.35 and 5.36 in the TA.
		3.74	*A map of the existing pedestrian and cycling conditions is presented in Figure 3-4. A map showing the local Public Rights of Way (PRoWs) to the Site is found at Appendix E.*		
		Figure 3.4	*Existing Pedestrian and Cycling Network*		
		3.75	*A 20-minute walk catchment plan is presented in Figure 3-5 and a 30-minute cycle catchment plan is presented in Figure 3-6.*	7	Is the 'Less than 10 minutes' isochrone to the west and northwest of the site realistic given the severance associated with the rail lines?
		Figure 3.5	*Walking Catchment - 30 mins*		
		Figure 3.6	*Cycling Catchment - 40 mins*	8	Is the 'Less than 10 minutes' isochrone to the west and immediate northwest of the site realistic given the severance associated with the rail lines?
	Existing Travel Patterns	*3.80*	*Table 3.3 presents the 2011 Census 'method of travel to work' data for the middle layer super outputs area (MSOA) relevant to the Site – Eastleigh 006/007.*	9	Irrespective of whether the 2021 Census data was used or not, the specific location of the site cannot be expected to have a similar walk or cycle share as the more densely developed parts of Eastleigh which would dominate the 2021 data.
		3.81	*2021 Census data has not been used as it was collected whilst Covid restrictions were in force and so it is not representative of current likely mode shares.*	10	Mode split assumptions appear irrelevant to the assessment of vehicular impacts given the way vehicular trip generation has been estimated (using TRICS vehicular rates rather than person rates broken down across the different modes).
		3.82	*Private vehicle use is the predominant travel mode, however there is a relatively high rail percentage, while walking equates to 15% of trips.*		
	Traffic Surveys	*3.93*	*2025 Traffic Surveys* *In line with comments received during the pre-application, traffic surveys were undertaken in February 2025, including Classified Turning Counts (CTC) and Automated Traffic Counts (ATCs). The locations of the surveys are summarised below:* *Classified Turning Counts (CTCs)* *1. A335/Wide Lane/Bassett Green Road signalised junction* *2. Wide Lane/Wessex Lane signalised junction* *3. Wide Lane/Mansbridge Road roundabout junction* *Automatic Traffic Counts (ATCs)* *4. A355 (south of A335/ Leigh Road junction)* *5. Wide Lane (south of Wide Lane/ Doncaster Drove junction)* *6. A335 (west of Stoneham Interchange)* *7. Wide Lane (north of Wide Lane/ Mitchell Way/ George Curl Way roundabout)* *8. Mitchell Way (south of Southampton Airport Parkway Rail Station access)* *9. Wide Lane (north of Land Rover car dealership)* *10. Wide Lane (south of Mardon Close)* *11. Mansbridge Road (east of Monks Way)* *12. Stoneham Way (including Wide Lane) (south of Stoneham Way/ Wide Lane/ Bassett Green Road junction)* *13. Stoneham Way (north of Stoneham Way/ Wide Lane/ Bassett Green Road junction)*	11	This section ought to be updated/corrected to include the counts undertaken at M27 J5 in 2025 (c.f. paragraph 8.74 and paragraph 3.6 of the 'Highways Modelling Technical Note' in Appendix Y).
5 External Strategic Transport Connections (Outside Application Boundary)	*Wide Lane Bridge Enhancements*	*5.3*	*The Wide Lane Bridge to the north of the site is constrained in terms of pedestrian and cycle infrastructure as well as being a bottleneck for HGVs to cross. While the constraint has not stopped development coming forward it is a long-term aspiration of EBC and HCC to improve the operation of the bridge and to provide better non-motorised user access.*	12	Surely the Wide Lane Bridge is to the southwest of the site.
6 Active Travel England Assessment	*1) Trip Generation and Assignment*	*6.9*	*Chapter 7 of this TA sets out the total external trips by mode expected to be generated by the Proposed Development for the peak hours and across the day. Table 7.14 summarises the forecast pea hour trip generation for Scenario 1, as this is the time of day with the greatest generation. Mode splits have been applied based on the evidence presented within subsequent chapters of this TA, which are summarised below:* *• Overarching target baseline mode shares for trips have been established for Navigator Quarter and agreed through discussions to date with HCC, EBC and NH;* *• Following discussions with local authorities, the evolution of the TA and Framework Workplace Travel Plan documents, the external mode share that has been agreed for all land uses.*	13	When were baseline mode shares agreed with National Highways?
7 Trip Generation	*Proposed Development Trip Generation*	*Table 7.4*	*TRICS Survey Search Criteria*	14	The upper end of the 'Class B2 General Industrial (TRICS - Industrial Unit)' and 'Class B8 Storage and Distribution (TRICS Parcel Distribution Centres)' appear low - 9,216sqm and 6,016sqm respectively. Note: Table 7.5 suggests that the latter is incorrect: Site SO-02-G-01 Horton Road, Slough, Colnbrook' is 15,583sqm.
		Table 7.5	*TRICS Datasets*	15	Site SO-02-G-01 Horton Road, Slough, Colnbrook' is 15,583sqm. The upper end of the 'Class B8 Storage and Distribution (TRICS Parcel Distribution Centres)' in Table 7.4 therefore appears incorrect.
		7.22	*Therefore for the purposes of forecasting and generating a trip budget to assess the scheme against the following land use mixes have been considered.* *• Scenario 1: 15% Class E (g) (ii) R&D and (iii) Industrial Processes + 15% B2 - General Industrial Use + 60% B8 - Warehousing Use + 10% B8 – Parcel Distribution.*	16	National Highways' feedback at the scoping stage included the following: *'Use B8 accommodates potential parcel distribution activity. Parcel distribution rates should also be used to represent a potential B8 worst case trip generation.'* 10% and 5% parcel distribution does not represent a potential 'worst case trip generation' for the site.
		7.23	*A second scenario has also been run as a sensitivity test, with a higher proportion of B8 use:* *• Scenario 2: 10% Class E (g) (ii) R&D and (iii) Industrial Processes + 10%% B2 - General Industrial Use + 75% B8 - Warehousing Use + 5% B8 – Parcel Distribution.*		
		7.30	*Importantly, HGV trip generation is typically associated with the number of loading bays, which are located on the ground floor and hence do not increase when mezzanine levels are introduced. Therefore, whilst the mezzanine levels may include automated operations which could improve efficiency and HGV throughput, there would not be a pro-rata increase in HGV numbers as these would be restricted by the number of loading bays.*	17	National Highways' feedback at the scoping stage included the following: *'HGV trip generation is not typically associated with the number of loading bays available – it is the other way around (i.e. the number of HGV loading bays required is a function of the HGV trip generation). The number of HGV loading bays available does determine HGV bay capacity (which is a different matter).'*
		7.31	*As a consequence of the above, it is concluded that mezzanine floor space does not generate trips on a pro-rata basis as conventional floor space does.*	18	This is true as long as the mezzanine floor space is not re-purposed for additional site activities (e.g. business-related activities additional to those normally associated with the activities the site was developed to accommodate).
		7.32	*The consented Plot 12 East Midlands Gateway Development (ref. 20/0071&/FULM) assumed that only 50% of the mezzanine floor space would generate trips. These factors recognise that the mezzanine floor space could generate additional employee and HGV trips, but that these would not be at pro-rata levels compared to conventional floor space.*	19	Decisions reached elsewhere or even locally for other developments do not necessarily stand as precedents.
		7.33	*This approach was accepted by the local authority. It is therefore proposed that a similar approach is adopted for the B2 and B8 uses of the Site. A review of the TRICS sites used identifies that no mezzanine floorspace details were provided within the TRICS site information.*		
		7.34	*A proportional reduction of trips associated with mezzanine level development has not been applied to the trip generation assessment for Scenarios 1 and 2 at this stage. Therefore, the trip generation assesses a worst-case land area for these scenarios.*	20	Scenarios 1 and 2 would not be considered 'worst case' scenarios by National Highways. See comment 16.
		7.47	*Table 7.15 compares the net change in trips for the Scenario 1 Proposed Development against the theoretical SRTM DS3 vehicle trip generation. This demonstrates that Scenario 1 (15% Class E (g) (ii) R&D and (iii) Industrial Processes + 15% + B2 - General Industrial Use + 60% B8 - Warehousing Use + 10% B8 – Parcel Distribution) would generate 5 fewer two-way vehicle movements in the AM peak and 38 more two-way vehicle movements in the PM peak compared to the theoretical SRTM vehicle trips. Within both periods there would be a significant reduction in car trips but LGV trips and OGV trips would both increase.*	21	The increases in LGV and OGV trips are significant, especially the latter in terms of pcus.
		7.57	*Robustness of Assessment* *It should be noted that both the Scenario 1 and Scenario 2 trip generation assessments are considered to be a 'worst case', for the following reasons described below:* *• The trip generation is based on a comparison against the 30,000sqm of office allowance for the Navigator Quarter made within the SRTM DS3 scenario. Therefore, an allowance was made for the impacts of these trips on the highway network at the Local Plan stage. As a result, the increase in trips should be viewed as a net change compared to the SRTM DS3 allowance. It should also be noted that the 30,000sqm SRTM DS3 allowance, only covers the land allocated for the northern land parcel while the Eastleigh Borough Local Plan allows for the allocation of the following two Sites, within which the Proposed Development falls:* *→ Policy E7, Development opportunities adjoining Eastleigh River Site – Approximately 34,000 sqm of employment uses for use classes B2, B8 and E(g) (ii)/(iii).* *→ Policy E9, Southampton Airport – Approximately 79,000sqm of employment uses in use classes B2, B8 or E(g).* *• No allowance has also been made for a reduction in trips associated within mezzanine levels in Scenarios 1 or 2, should these form part of any RMA application(s), they would generate less vehicles.* *• It has initially been assumed that all of the units within the masterplan would be for the uses outlined in the application and that these would be accessed from Mitchell Way. However, there is an opportunity for the buildings directly adjacent to the airfield to be utilised by the Airport, for Airside related uses, i.e. hangars. If such a strategy were implemented, these buildings would effectively be non-traffic-generating and accessed from the airport side. The trip generation assessment has therefore been based upon the 'worst case' scenario.*	22	Scenarios 1 and 2 would not be considered 'worst case' scenarios by National Highways. See comment 16.
	Proposed Development Multi-modal Trips	*7.58 & 7.59*	NA	23	Mode split assumptions appear to be irrelevant to the assessment of vehicular impacts given the way vehicular trip generation has been estimated (using TRICS vehicular rates rather than person rates broken down across the different modes).
	Proposed Development Vehicle Trip Distribution	*Table 7.23*	*Employee Trip Distribution*	24	As significant (i.e. in addition to trips actually using the M27) are the 62% and 67% of employees travelling through M27 J5 in the morning and evening peaks hours (M27 East, M27 West, Stoneham Lane, Basset Green Road and an estimated 50% of Stoneham Way trips).
		7.66	*The above indicates that 29% of employees in the morning peak hour and 49% in the evening peak hour would use the SRN to access the Site.*		
		7.70	*The distribution proportions calculated from the observed 2023 turning count data is included in the analysis in Appendix T.*	25	This appears to be reasonable until one recognises the step-change in LGV traffic that the proposed development might involve with LGVs having a wider footprint because not simply service in nature. LGV trips associated with parcel distribution activities would be expected to have a large footprint.
		7.71	*The above turning proportion distributions were then applied to the Proposed Development Scenario 1 LGV trips. The flow diagrams showing the distribution of the Proposed Development LGV trips for the AM and PM peak periods are provided in Appendix U.*	26	The proportions of LGVs travelling from/to the M27 and through M27 J5 appear to be reasonable unless strategic rather than local parcel distribution occurs on the site.
		7.76	*Total Proposed Development Scenario 1 Flow Distribution Diagrams* *The Total Proposed Development Scenario 1 AM and PM peak total vehicle flows (including % HGVs) are also included in Appendix W.*	27	JSJV's calculations yielded slightly higher but sufficiently close flows (6% and 4% higher in the AM and PM peak hours) through M27 J5 than those presented in Appendix W. 0% HGVs on the M27 westbound off-slip at M27 J5 in the AM and PM peak hours is incorrect.
		7.77	*Appendix X also includes the Proposed Development Passenger Car Unit (PCU) diagrams, for each vehicle mode and total PCU's. The following factors were applied to convert vehicle flows to PCU's:* *• Cars/ motorcycles, taxis and LGVs = 1 PCU (motorcycles were included as 1 PCU as opposed to 0.4 PCU given the low level of motorcycle flows.* *• HGV/ PSV = 2.3 PCUs*	28	JSJV's calculations yielded higher flows (10% and 13% higher in the AM and PM peak hours) through M27 J5 than those presented in Appendix X possibly because of the 0% HGVs on the M27 westbound off-slip at M27 J5 in the AM and PM peak hours in Appendix W.
8 Highways Assessment	*Junction Model Overview and Study Area*	*8.4*	*Appendix Y contains the Technical Note detailing the transport modelling analysis for the agreed study area, utilising Junctions 9 (J9) and LinSig models (including validation results). The following narrative provides a summary of the methodology and the output results, with full details provided in the Technical Note.*	29	JSJV is still to review the material provided in Appendix Y. Such a review will await receipt of model materials for M27 J5. See comments 31 and 33.
		Table 8.1	*Junction modelling summary*	30	National Highways would be interested in the modelling of Junction 06 (M27 J5).
	Highways Assessment – Turning Movement Diagrams	*8.36*	*Appendix BB include the vehicle flow and PCU flow turning movement diagrams for each of the following assessment scenarios:* *• 2023 Base* *• 2025 Base* *• 2025 Baseline* *• 2028 Baseline*	31	Please supply the models of M27 J5 and all materials used to develop them (traffic surveys, drawings, etc.) to National Highways.

			• 2028 Baseline + Proposed Development • 2036 Baseline • 2036 Baseline + Proposed Development		
	Junction Capacity Modelling Results	*8.37*	*Appendix Y contains full details of the transport modelling results (including all baseline and 'with Proposed Development' scenarios) and the validation process, with a brief summary of the 2023 and 2025 base models validation below: • 2023 Base and 2025 Base Modelling Validation Results: The base models generally aligned well with observed traffic conditions, with minimal discrepancies. While a few minor validation issues were identified they do not undermine the reliability of the overall models. • 2023 Base Junction Operational Challenges: The analysis highlighted significant existing operational issues at some junctions with the A335 / Wide Lane consistently operating above practical capacity and close to theoretical capacity during peak periods. Queueing effects at the Southampton Airport Parkway Rail Station contributes to this congestion issue.*		
		8.38	*The junctions operating at capacity or above (Degree of Saturation (DoS)/ Ratio of Flow to Capacity (RFC) above 90%) during either the AM or PM peaks in the future year modelling assessments are identified in Table 8.7.*		
		Table 8.7	*Summary of Junctions Operating at capacity and Above in either AM or PM*	32	Five model links for J06 are missing from the table (9/2 Southern Circulatory Right Ahead, 9/3 Southern Circulatory Right, 10/1 Western Circulatory Ahead, 10/2 Western Circulatory Right Ahead and 10/3 Western Circulatory Right).
	Proposed Development Capacity Impacts and Mitigation	*8.63*	*J06 – M27 J5 The modelling results indicate that the junction generally operates within acceptable capacity limits, in the 2025 and 2028 Baseline AM peak scenarios with most arms/ lanes staying below 90% DoS.*	33	Please supply the models of M27 J5 and all materials used to develop them (traffic surveys, drawings, etc.) to National Highways.
		8.64	*However, certain key movements experience increasing pressure over time. In the AM peak, DoS values exceed 80% by the 2036 Baseline on the A335 Stoneham Way arm and Eastern Circulatory section. In the 2036 Baseline + Proposed Development AM peak scenario, the M27 E off-slip ahead arm, and A335 Stoneham Way S arms and the Eastern Circulatory all operate above 80% DoS, but the junction still operates within its theoretical capacity.*		
		8.65	*In the PM peak, the DoS levels are generally higher than in the AM peak. In the 2028 Baseline PM peak the DoS is forecast to exceed 90% on A335 Stoneham Way ahead arm and Eastern Circulatory, which then increase further in the 2028 Baseline + Proposed Development PM peak scenario, with the A335 Stoneham Way ahead arm close to theoretical capacity (99.8% DoS).*		
		8.66	*In the 2036 Baseline PM peak, the A335 Stoneham Way ahead arm is forecast to be at 103% DoS, and the Eastern Circulatory is forecast to be at 97.6% DoS, and therefore the junction will be operating above theoretical capacity even before Proposed Development trips are added. Therefore, the theoretical capacity is also forecast to be exceeded in the 2036 Baseline + Proposed Development scenario on the M27 E off-slip and the A335 Stoneham Way arm (107% DoS).*		
General				34	The use of parcel distribution rates and distributions for a higher amount of the B8 use is likely to result in higher flows through M27 J5. National Highways will therefore require the full assessment of M27 J5 (i) with a higher amount of parcel distribution activity than assumed and (ii) a review of the off and on slips in both directions (i.e. CD 122 assessments) to confirm that the additional traffic generated by the proposed development will not create or aggravate safety issues on the off and on slips.

Regards

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OK OK

Blocwork (Eastleigh) LLP and Southampton International Airport Limited (SIAL)
Navigator Quarter

TEMPro Factor Comparison

Average Weekday - Applied in original TA

Base Year - Future Year	Road Type	Standard Factors	Adjusted Factors
2023 - 2025	Motorway	1.0268	1.022
	Trunk	1.0282	1.0234
	A Road	1.0254	1.0206
	Minor	1.0266	1.0218
2023 - 2028	Motorway	1.0499	1.0394
	Trunk	1.0519	1.0414
	A Road	1.0489	1.0383
	Minor	1.0507	1.0402
2023 - 2036	Motorway	1.1119	1.0911
	Trunk	1.1192	1.0983
	A Road	1.1149	1.094
	Minor	1.1212	1.1002
2025 - 2028	Motorway	1.0223	1.0118
	Trunk	1.0229	1.0124
	A Road	1.0227	1.0122
	Minor	1.0233	1.0128
2025 - 2036	Motorway	1.0821	1.0614
	Trunk	1.0878	1.0669
	A Road	1.0865	1.0657
	Minor	1.0914	1.0705

NRTP 2022 Core - AM

	Base Year - Future Year	Road Type	Adjusted Factors	Notes	% change vs TA factors
	2023 - 2025	Motorway	0.9592	Not used	-6.1%
		Trunk	1.0116	Not used	-1.2%
		A Road	1.0037		-1.7%
		Minor	1.0041		-1.7%
	2023 - 2028	Motorway	1.0042	Not used	-3.4%
		Trunk	1.0435	Not used	0.2%
		A Road	1.0272		-1.1%
		Minor	1.0275		-1.2%
	2023 - 2036	Motorway	1.2315	Not used	12.9%
		Trunk	1.1148	Not used	1.5%
		A Road	1.0771		-1.5%
		Minor	1.0771		-2.1%
3.47%	2025 - 2028	Motorway	1.0469	1.0432 if Region selected	3.5%
		Trunk	1.0315	Not used	1.9%
		A Road	1.0235		1.1%
		Minor	1.0233		1.0%
	2025 - 2036	Motorway	1.2839	1.1386 if Region selected	21.0%
		Trunk	1.1019	Not used	3.3%
		A Road	1.0731		0.7%
		Minor	1.0721		0.1%

NRTP - 2022 Core - PM

Base Year - Future Year	Road Type	Adjusted Factors	Notes	% change vs TA factors
2023 - 2025	Motorway	0.9587	Not used	-6.2%
	Trunk	1.0111	Not used	-1.2%
	A Road	1.0032		-1.7%
	Minor	1.0036		-1.8%
2023 - 2028	Motorway	1.0036	Not used	-3.4%
	Trunk	1.0429	Not used	0.1%
	A Road	1.0266		-1.1%
	Minor	1.0269		-1.3%
2023 - 2036	Motorway	1.2315	Not used	12.9%
	Trunk	1.1148	Not used	1.5%
	A Road	1.0771		-1.5%
	Minor	1.0771		-2.1%
2025 - 2028	Motorway	1.0468	1.0431 if Region selected	3.5%
	Trunk	1.0315	Not used	1.9%
	A Road	1.0235		1.1%
	Minor	1.0233		1.0%
2025 - 2036	Motorway	1.2845	1.1391 if Region selected	21.0%
	Trunk	1.1024	Not used	3.3%
	A Road	1.0736		0.7%
	Minor	1.0732		0.3%

NRTP - 2022 Core Daily - Average Day

Base Year - Future Year	Road Type	Adjusted Factors	Notes	% change vs TA factors
2023 - 2025	Motorway	0.9586	Not used	-6.2%
	Trunk	1.0110	Not used	-1.2%
	A Road	1.0031		-1.7%
	Minor	1.0035		-1.8%
2023 - 2028	Motorway	1.0037	Not used	-3.4%
	Trunk	1.0430	Not used	0.2%
	A Road	1.0268		-1.1%
	Minor	1.0270		-1.3%
2023 - 2036	Motorway	1.2342	Not used	13.1%
	Trunk	1.1172	Not used	1.7%
	A Road	1.0795		-1.3%
	Minor	1.0765		-2.2%
2025 - 2028	Motorway	1.0470	1.0433 if Region selected	3.5%
	Trunk	1.0316	Not used	1.9%
	A Road	1.0236		1.1%
	Minor	1.0234		1.0%
2025 - 2036	Motorway	1.2874	1.1417 if Region selected	21.3%
	Trunk	1.1049	Not used	3.6%
	A Road	1.0760		1.0%
	Minor	1.0756		0.5%

Notes:

Red shaded cells are factors that were not used in any of the assessments. For the M27 J5 2025 base year growth factors were used to future year as count data was from 2025.
Red text show growth factors which have increased verses original factors applied in submitted Transport Assessment
Original TA calculations were based on Average weekday factors.
NRTP 2022 Core Scenario does not differentiate between urban road and rural road factors in area type. 'All' selected instead.
If motorway Region category associated growth factors are lower than the Motorway England figure.
For 2023 based factors future jobs assumed to be 76611 - same as base
For 2025 based factors future jobs assumed to be 77330 - same as base