

North Whiteley Consortium

North Whiteley

**Transport Assessment and Travel
Plan Scoping Statement**

Final Draft

Project Ref: 16659

February 2011

Peter Brett Associates LLP
10 Queen Square
Bristol
BS1 4NT
T: 0117 9281560
F: 0117 9281570
E: bristol@peterbrett.com



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	Name	Position	Signature	Date
Prepared by:	Philip Rawlins	Engineer		18 th February 2011
Reviewed by:	Neil Thorne	Associate		18 th February 2011
Approved by	Tony Russell	Partner		18 th February 2011
For and on behalf of Peter Brett Associates LLP				

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Contents

1	Introduction	1
1.1	Background.....	1
1.2	Purpose of Scoping Statement.....	1
1.3	North Whiteley Scoping Statement.....	2
2	Development Proposals	4
2.1	Site Description.....	4
2.2	Planning Background.....	4
2.3	Development Proposals.....	4
3	Scope of Transport Assessment	6
3.1	Overview	6
3.2	Executive Summary.....	7
3.3	Introduction	7
3.4	Planning Policy Framework	8
3.5	Existing Transport Conditions.....	8
3.6	Sustainable Transport and Access Strategy	10
3.7	Development Travel Demand	14
3.8	Transport Impacts of Development.....	15
3.9	Package of Mitigation Measures.....	17
3.10	Summary and Conclusions.....	18

Tables

Table 1 –	Committed Development: Solent 1 Development
Table 2 –	Committed Development: Solent 2 Development
Table 3 –	WCC Residential Car Parking Standards
Table 4 –	Multi-Modal Trip Rates and Resulting Predicted Person Trips
Table 5 –	Development Refined Modal Split

Figures

Figure 1 –	Site Location
Figure 2 –	Iterative Approach to Transport Assessment
Figure 3 –	North Whiteley TA Road Map
Figure 4 –	Location of Junctions to be Assessed
Figure 5 –	Accident Data Request Plan

Appendices

Appendix A –	Figures
Appendix B –	TA Scoping Consultation
Appendix C –	PBA 'Transport Modelling Scope & Methodology Report', August 2010
Appendix D –	Latest Masterplan, Phasing and Scenarios for Assessment

1 Introduction

1.1 Background

1.1.1 Peter Brett Associates LLP (PBA) has been commissioned by the North Whiteley Consortium (Crest Nicholson, Bovis Homes, Taylor Wimpey and local land owners) to prepare a Transport Assessment (TA) and Travel Plan (TP) in support of development proposals on land to the north of Whiteley, Hampshire.

1.1.2 The site is located within Winchester City Council's administrative area, Hampshire. The location of the proposed development is illustrated within **Figure 1**, which is enclosed at **Appendix A**.

1.2 Purpose of Scoping Statement

1.2.1 Planning Policy Guidance Note 13: Transport (PPG13) states that, where a new development is likely to have significant transport implications, a Transport Assessment (TA) should be prepared and submitted with a planning application for the development.

1.2.2 In March 2007, the DCLG / DfT published their 'Guidance on Transport Assessment' (GTA) to provide guidance on whether an assessment may be required and, if so, what the level and scope of that assessment should be.

1.2.3 The GTA states that a properly prepared TA will help Local Planning Authorities (LPAs) assess the development's compatibility with the relevant planning policy framework and transport strategy. It will allow the transport implications of proposed developments to be properly considered and, where appropriate, will help identify suitable measures to achieve a more sustainable and environmentally sound outcome. A TA can also address issues likely to be of concern to the Local Highway Authority (LHA) and Highways Agency (HA), where relevant, in performing their network management duties.

1.2.4 The GTA states that, in preparing a TA the following considerations will be relevant:

- Encouraging environmental sustainability:
 - Reducing the need to travel, especially by car
 - Tackling the environmental impact of travel
 - The accessibility of the location
 - Other measures which may assist in influencing travel behaviour (ITB)
- Managing the existing network:
 - Making best possible use of existing transport infrastructure
 - Managing access to the highway network
- Mitigating residual impacts:
 - Through demand management

North Whiteley

Transport Assessment and Travel Plan Scoping Statement

- Through improvements to the local public transport network, and walking and cycling facilities
- Through minor physical improvements to existing roads
- Through provision of new or expanded roads

1.2.5 The GTA continues by advocating the need for pre-application discussions. It states that pre-application discussions should be held with the LPA, LHA and HA, where there might be an impact on the Strategic Road Network (SRN). This ensures that all parties have a better understanding of, and reach a consensus on, the key issues to be addressed in respect of particular development proposals.

1.3 North Whiteley Consultation

1.3.1 This Scoping Statement has been prepared in consultation with Hampshire County Council (HCC, the LHA) and the HA in accordance with the GTA. The results of the scoping process have also been fed into discussions with Winchester City Council (WCC, the LPA) and other local stakeholders through the WCC North Whiteley Transport Workshops.

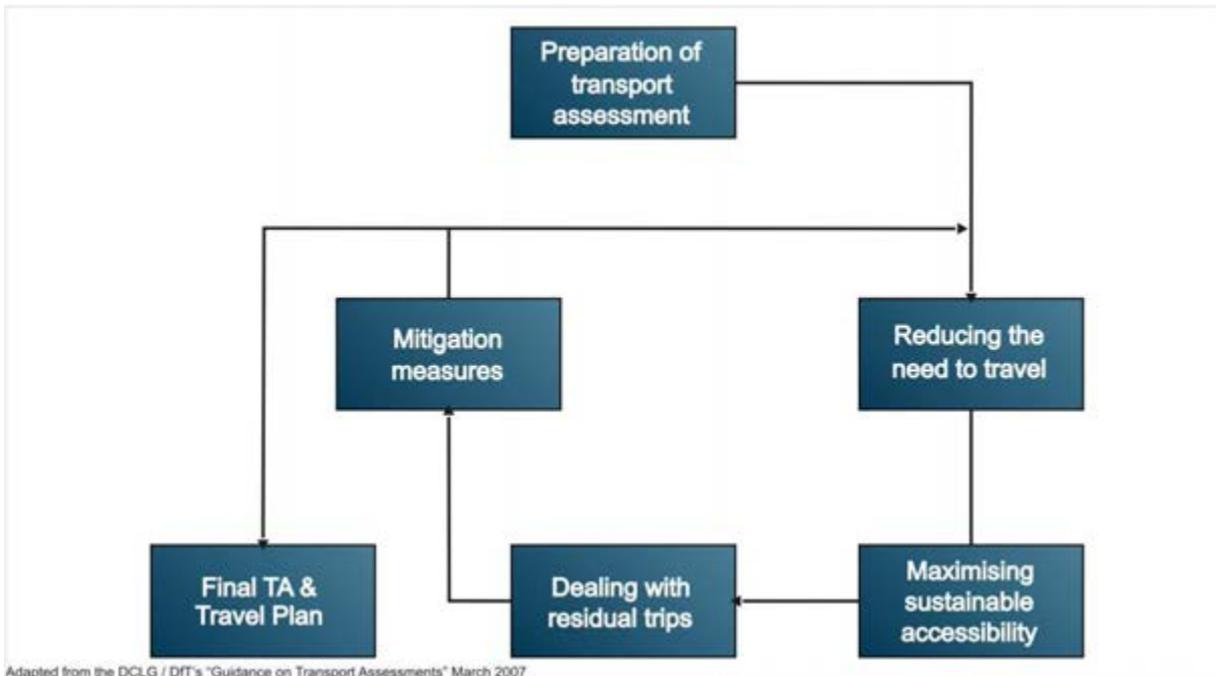
1.3.2 PBA attended a Transport Assessment and Modelling Scoping meeting with the HA on 2nd June 2010 and with HCC on 9th July 2010. Minutes of the meetings are included in **Appendix B**.

1.4 North Whiteley Scoping Statement

1.4.1 The purpose and content of this Statement is to provide a framework through which a formal scope of works can be agreed by HCC, the HA and PBA, prior to the undertaking of a detailed Transport Assessment and supporting Travel Plan to support an outline planning application for the proposed development at North Whiteley.

1.4.2 In accordance with the GTA, and as illustrated in **Figure 2** below, the TA will address the iterative approach of reducing the need to travel, especially by car; maximising sustainable accessibility; and dealing with residual trips through suitable mitigation measures, which promote innovative and sustainable transport solutions in advance of considering any physical improvements to the highway.

Figure 2: Iterative Approach to Transport Assessment



- 1.4.3 This Statement should be read in conjunction with the 'Transport Modelling Scope and Methodology Report' at **Appendix C**, which sets out a suggested process for undertaking a multimodal modelling assessment of the proposed development.
- 1.4.4 It is envisaged that these documents will be built upon over time as scoping discussions continue and will be added to and refined as more detailed information regarding the development proposals and methodology become available.

2 Development Proposals

2.1 Site Description

- 2.1.1 The proposed development at North Whiteley consists of approximately 215Ha of agricultural farm land and is located north of the M27 (Junction 9), to the east of the A3051 Botley Road, to the south east of Hedge End and to the east of Southampton.
- 2.1.2 The conurbations of Whiteley and Swanwick are located to the south of the North Whiteley development site, between the site and the M27 motorway. A number of facilities are provided here including the Solent Business Parks, which provide a location for a wide variety of employers and services, and the Whiteley Village Retail Outlet Centre, which provides a wide range of shops and retail opportunities.
- 2.1.3 It is understood that Whiteley Village Retail Outlet Centre has recently been granted outline permission for redevelopment to provide more of a district centre for Whiteley, and these proposals will be factored into the North Whiteley Transport Assessment.

2.2 Planning Background

- 2.2.1 The urban extension has been identified in Winchester City Council's Core Strategy Preferred Option '*Policy SH3: Strategic Housing Allocation – North Whiteley*' as a preferred location to accommodate up to 3,000 dwellings in the South Hampshire part of Winchester District. The master plan process is to determine the exact number of dwellings.
- 2.2.2 The North Whiteley Consortium are actively promoting the site through the WCC Core Strategy process with the intention of submitting an outline planning application in March / April 2011.

2.3 Development Proposals

- 2.3.1 Whilst the land use components at the North Whiteley urban extension are broadly as outlined in Core Strategy Policy SH3, detail will be set by the findings of emerging reports and studies.
- 2.3.2 On this basis, the site masterplan is still undergoing development, however it is anticipated that the development will consist of the following uses:
- Up to 3,500 residential dwellings
 - A local centre (at least 8 shops)
 - Two community centres
 - Two primary schools
 - One community secondary school
 - Informal open space
 - A medical centre
 - Three nurseries

North Whiteley

Transport Assessment and Travel Plan Scoping Statement

2.3.3 Consideration is also being given to the provision of:

- A retirement home / village
- Leisure facilities
- An energy centre

2.3.4 A preliminary masterplan is provided at **Appendix D**, however it should be noted that this is draft and is still undergoing refinement moving forward. Further information on phasing is also currently being progressed and is to be fixed prior to assessment.

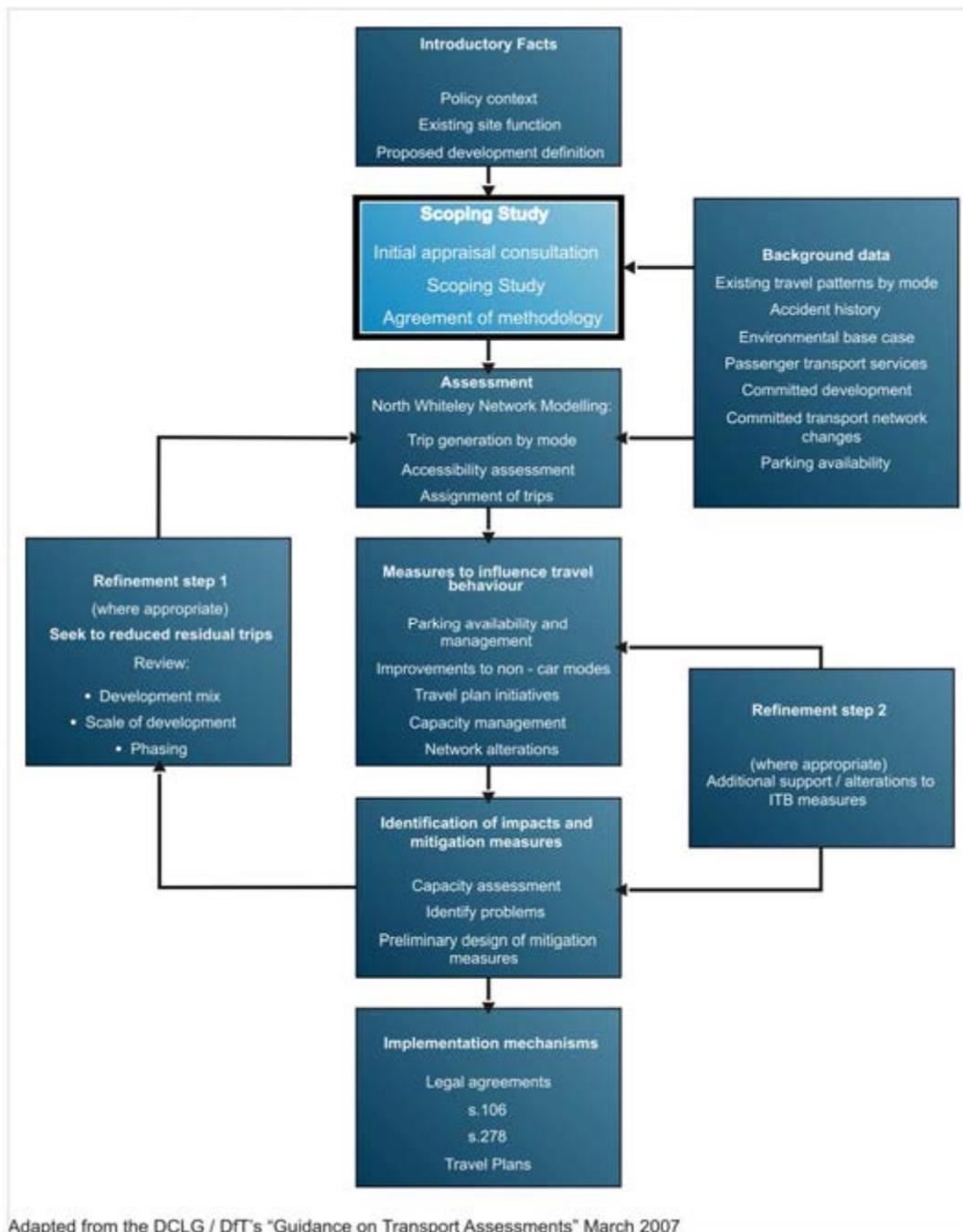
2.3.5 Further information on development land uses, quantum and phasing to inform the assessment will be provided in due course.

3 Scope of Transport Assessment

3.1 Overview

3.1.1 In order to provide clarity of understanding to the Local Authorities and key stakeholders, the TA will be set out in accordance with the GTA and will follow the Road Map approach advocated within the Guidance and flow chart replicated in **Figure 3** below.

Figure 3: North Whiteley TA Road Map



Adapted from the DCLG / DfT's "Guidance on Transport Assessments" March 2007

3.1.2 Whilst the approach advocated within the GTA will be followed throughout the assessment process, PBA have developed their own approach and structure to TA's which incorporates all of the technical requirements of the Guidance, whilst setting out the results in a clear, concise and chronological order to best reflect and report upon the refinement process.

3.1.3 The proposed TA Structure and specific North Whiteley scoping requirements are set out below.

3.2 Executive Summary

3.2.1 An Executive Summary will be provided, setting out a concise summary of the TA process, results and conclusions. The Executive Summary will be prepared in non-technical language to aid engagement with all relevant stakeholders.

3.3 Introduction

3.3.1 This section of the TA will set out the background information for the site, development proposals and the assessment approach. Contents would include:

- Background to the project (incl. names of concerned parties and consultants)
- Planning Context
- Development Proposals (see Section 2 of this Scoping Statement)
- Scoping of the TA (including this agreed Scoping and Methodology Report as an Appendix)
- Aims of the TA:

The purpose of the Transport Assessment is to:

- Work pro-actively with WCC, HCC and the HA in the promotion of the development through pre-application consultation in order that any queries or concerns can be addressed;
 - Demonstrate the suitability of development proposals within the context of national and local transport policy;
 - Consider access and movement to and from the site by all modes, including walking, cycling, public transport and private vehicles, having regard to existing and future year travel demand; and
 - Determine the likely impact of the development on the surrounding transport network and identify an appropriate way forward through which to determine a package of suitable mitigation measures.
- Structure of the TA (explanation as set out within this Scoping Statement)

3.4 Planning Policy Framework

3.4.1 A review of transport policy and guidance relevant to the site will be undertaken. Key guidance and documentation will include the following:

National Policy Context

- Transport 10 Year Plan (2000)
- The Future of Transport, White Paper (2004)
- Planning Policy Guidance Note 13: Transport (2001)
- Delivering a Sustainable Transport System (2008)

Local Policy Context

- Winchester Local Plan (1991 to 2011)
- Winchester District Development Framework, Core Strategy, Preferred Option (May 2009) (or any subsequent version thereof)
- Hampshire Local Transport Plan (2006 – 2011)
- (Emerging) Hampshire Local Transport Plan (2011 – 2016)

Relevant Transport Guidance and Studies

- DCLG / DfT Guidance on Transport Assessments (2007)
- Towards Delivery: Transport for South Hampshire Statement (April 2008)
- Delivering Strategies: Winchester District LDF Transport Assessment (MVA Consultancy, November 2008)
- Setting Strategic Direction: North/North East Hedge End Strategic Development Area and North Whiteley (Mott Gifford & MVA March 2008)
- M27 Corridor & Parallel Study Reports

3.4.2 The TA will indicate the transport aspects of the proposal, how the proposal will help to deliver the aims and objectives of the development plan, and how it responds to relevant and up-to-date Government planning policy.

3.5 Existing Transport Conditions

3.5.1 The Existing Transport Conditions within the local study area will be described to set the context for the development proposal. The TA will provide details of the site location; access to local facilities and amenities; and the local transport network, including the results of highway network capacity assessments and a review of local Personal Injury Collision (PIC) data. The local study area is detailed in **Figure 4** at **Appendix A**.

Site Description and Location

- Site description
- Permitted and existing uses of the site
- Strategic level site location (including a plan identifying the site within the strategic transport system context)
- Local level site location (including relevant plan)

Local Facilities and Amenities

- Detailed description of existing land uses in the vicinity of the site, including any committed development and emerging development plan allocations, local facilities and amenities and *actual* walk and cycle isochrones.

Walking and Cycling

- Local walking / cycling network assessment (providing a qualitative assessment of the existing links between the site and key destinations)

Public Transport

- Public transport assessment (identifying the existing bus and rail services serving the site)

Local Highway Network

- Description of the local highway network from on-site observations, including geometries, speed limits, waiting restrictions, parking facilities, foot & cycleway provisions, etc.
- Example photos and plans, where necessary.
- Reference to any planned highway / junction improvements within the area.

Strategic Road Network

- Description of the Strategic Road Network from on-site observations and recently commissioned studies (see 'Relevant Transport Guidance and Studies' above).
- Example photos and plans, where necessary.
- Reference to any planned highway / junction improvements within the area.

Highway Network Capacity Assessment

- Study Area
- Committed Development:

PBA is aware that there is considerable committed development at both Solent 1 and 2 Business Parks, see tables 1 and 2 below.

Table 1 – Committed Development: Solent 1 Development

Use	Existing Built (m ²)	Existing Occupied (estimate) (m ²)	Existing Vacant (Estimate) (m ²)	Consented / Allocated not built (m ²)
B1 Office	131,074	100,542	30,532	32,678
B1 Office / A5 Hot Food	6,857	6,857	NA	NA
Total	137,931	107,399	30,532	32,678

Source: TOR 'Employment Land Study: North Whiteley', Feb 2010

Table 2 – Committed Development: Solent 2 Development

Use	Existing Built (m ²)	Existing Occupied (estimate) (m ²)	Existing Vacant (Estimate) (m ²)	Consented / Allocated not built (m ²)
B1 Light Industrial / B8 Storage and Distribution	20,646	15,484	5,162	34,973
Total	20,646	15,484	5,162	34,973

Source: TOR 'Employment Land Study: North Whiteley', Feb 2010

Table 1 and 2 above demonstrate the approximate level of extant development within Whiteley in terms of the Solent 1 and 2 business parks. There is also a pocket of extant residential development (200 dwellings) within Whiteley. The trips generated by this development will be considered when undertaking the transport assessment.

It is also known that there are two nearby strategic development areas at Hedge End and Fareham that will need to be considered when undertaking analysis of the committed development within the transport modelling work. Assumptions will need to be made as to the phasing of these developments as the different build out phases of the North Whiteley development are modelled. It is considered that this should be carried out using the assumptions within the M27 Corridor Study. This will be agreed with HCC and the HA moving forward.

- Summary of the North Whiteley Model 2010 Base Year (see **Appendix C** for further details)
- The results of the base network (SATURN) and junction capacity assessments (will be set out in accordance with the agreed scope of works).

Personal Injury Collision Data

- Personal Injury Collision (PIC) data for the most recently available 3 years period covering the local highway network and key junctions as illustrated on **Figure 5** at **Appendix A**.
- For the Strategic Road Network the accident data will be compared with local average accident rates and appropriate national statistics
- This will be reviewed prior to submission of the application to ensure up-to-date records have been considered.

Summary

- To include a summary of the above and identify key issues to consider in developing the sustainable transport and access strategy.

3.6 Sustainable Transport and Access Strategy

- 3.6.1 The transport strategy for the site will be discussed in detail within this section, detailing proposed measures to increase the sustainability of the existing Whiteley area as well as introducing measures to support the North Whiteley site.

North Whiteley

Transport Assessment and Travel Plan Scoping Statement

- 3.6.2 The transport strategy for the North Whiteley development is being progressed and discussed with key stakeholders as part of Winchester City Council's Transport Working Group. Both HCC and the HA are party to these discussions and therefore involved in the consideration of suitable infrastructure and supporting smarter choices interventions.
- 3.6.3 A draft Transport Strategy document, which should be read in conjunction with this report, was circulated to all attendees of the Group prior to a meeting on the 30th June 2010. It was agreed at the meeting that both HCC and the HA would respond formally to the ideas put forward within this document. In the meantime meetings will be set up with the relevant teams from HCC on the following subjects for further discussion:
- Walking and Cycling
 - Public Transport
 - ITS
 - Smarter Choices
- 3.6.4 Further up-to-date information will be set out here until this Statement is finalised following detailed scoping discussions with HCC. Notwithstanding this a brief overview of transport strategy items is provided below.

Overview of Development Proposals

- A description of the development proposals will be provided including the following:
 - Masterplan
 - Proposed land uses
 - Development Phasing (in accordance with agreed assessment scenarios: 2016, 2021 and 2026)
 - Vehicle Access Principles (with detailed proposals set out further below)

Reducing the Need to Travel

- Transport Vision
- Core Principles and Objectives
- Masterplan principles to demonstrate that the ability to reduce the need to travel, especially by car, has been considered to maximise self sufficiency, containment and promote multi-purpose and / or linked trips.

Maximising Sustainable Accessibility

- 3.6.5 The transport strategy will promote accessibility by all modes of travel, in particular, walking and cycling and public transport. The strategy will reflect upon the existing transport conditions and demand for movement from the development proposals to identify appropriate measures to both enable and influence (the 'informed traveller') sustainable travel behaviour.

Walking and Cycling Proposals

- 3.6.6 A strategy for walking and cycling modes will be identified building on a review of the current network and level of infrastructure provision. Opportunities to improve the accessibility of the

site by these modes will be considered. PBA will also consider Safe Routes to School within the Transport Assessment.

Public Transport Proposals

3.6.7 A strategy for public transport will be identified, building on a review of bus services which operate within the study area carried out within the Existing Transport Conditions Section as described above. Information to be set out will include:

- Timetables
- Route Plans, interchanges and catchments
- 1st Pass Viability Assessment

Vehicular Access Strategy

3.6.8 The TA will set out the options considered for vehicular access to the site. At this stage vehicular site access proposals are anticipated to include 4 primary access points:

- 1 From Roundabout R3 at the existing Whiteley Way / Bluebell Way junction to the south of the site.
- 2 From a continuation of Bluebell Way into the site.
- 3 From Botley Road towards the north of the site.
- 4 From Botley Road at approximately the location of the existing Highgrove Industrial Estate access.

3.6.9 The vehicular access strategy will also set out the Network Demand Management Strategy, focussing on 3 key areas (as set out within the draft Transport Strategy document):

- Northern access and Botley Environmental Management Strategy
- Southern access and M27 Junction 9 Area Strategy
- Botley Road Access Strategy

3.6.10 For the purposes of the Transport Assessment, any junction / highway improvements will be tested with track run analysis and preliminary designs will be included at 1:500 scale.

Parking Strategy

3.6.11 Car and cycle parking will be provided in line with the standards set out within the Winchester City Council's SPD 'Residential Parking Standards', December 2009 which states that the following car parking spaces should be implemented at new development.

Table 3 – WCC Residential Car Parking Standards

Dwelling Size	Parking Spaces Required Per Dwelling	
	Shared / Communal Parking Spaces	Allocated Parking Spaces
1 Bed	1	1.5
2 Bed	1.5	2
3 Bed	2	2
4+ Bed	2.5	3

North Whiteley

Transport Assessment and Travel Plan Scoping Statement

- 3.6.12 This document will be used in the development of a masterplan for the North Whiteley site as a guide to the appropriate level of parking to implement. All suggested parking quantum will be agreed with HCC and the HA.
- 3.6.13 The car parking strategy will reflect the measures set out in the Travel Plan with the aim of reducing car parking spaces where considered appropriate and agreed with HCC and the HA.

Smarter Choices Strategy

- 3.6.14 The TA will set out the Smarter Choices Strategy, divided into the following sections (as set out within the draft Transport Strategy document):
- Modelling
 - Targets
 - Smarter Choices Strategy
 - Monitoring
 - Mitigation
- 3.6.15 The opportunities available for reducing existing trips on the transport network / affecting a mode shift on existing trip patterns in and around Whiteley through the implementation of the North Whiteley transport strategy will also be considered.
- 3.6.16 The Smarter Choices Strategy will be secured through the production of a Travel Plan. In accordance with the DCLG / DfT 'Guidance on Transport Assessments' and HCC's 'Guide to Development Related Travel Plans', PBA will prepare a Travel Plan to support the development of the site.

Travel Plan

- 3.6.17 The key aim of the Travel Plan will be to reduce the need to travel by single occupancy car trips associated with the development by promoting more sustainable alternatives to the car by car sharing, public transport and by walking and cycling. The Travel Plan will be prepared in accordance with the requirements set out in PPG13 and DfT's 'Using the planning process to secure travel plans'.
- 3.6.18 The underlying objectives of producing such a document include:
- Promote change in travel behaviour and travel awareness
 - To minimise the effects of transport and the environments
 - To encourage healthy commuting and work related journeys
 - To reduce the need to travel by private car
 - To achieve the minimum car use of occupiers and visitors of the site
 - To maximise the use of sustainable modes for all trips to and from the proposed development
 - To improve accessibility, particularly to non-car users
 - To ensure a safe and pleasant environment for those wishing to access the site by foot or cycle

- 3.6.19 These objectives would be achieved through a combination of measures aimed at discouraging single occupancy car use and facilitating the use of alternative modes of transport.
- 3.6.20 The Travel Plan will identify measures to achieve the objective above, including promoting non-car transport and identifying disincentives to car use. These targets will be agreed with the HA, HCC and WCC prior to finalising. These will be supported by targets for modal split completion on a phased basis during the build out of the development up to, and future reductions in car use.
- 3.6.21 Monitoring mechanisms will be proposed and will include travel surveys during a neutral time of the year aiming to collect at least 95% of all person trips into and out of the site during the surveyed day. The monitoring mechanisms will be agreed with the HA, HCC and WCC. Enforcement measures are also proposed if mode split targets are not then met (i.e. reducing the sole use of private car).
- 3.6.22 The enforcement measures are also proposed and will be agreed with the HA, HCC and WCC.

3.7 Development Travel Demand

- 3.7.1 This section of the TA will provide an overview of the likely travel demand resulting from the development proposals by all modes of travel including walking, cycling, public transport and private car trips.
- 3.7.2 These will be calculated using the base person trip rates from the assumptions used within the M27 corridor study. These trip rates will then be adjusted based upon the extensive list of sustainable transport measures / improvements being proposed for the North Whiteley site. Trip rates will be agreed with HCC and the HA going forward.
- 3.7.3 The morning and evening peak hours will be assessed and, whilst it is recognised that these periods do not represent the entire travel demand resulting from the development proposals, they do provide a recognised benchmark from which to consider the access and movement needs of future residents, employees and visitors to the site.

Development Proposals

- Summary of development proposals, including quantum of development to inform the person trip generation calculations.

Measures to Influence Travel Behaviour

- A summary of the Sustainable Transport and Access Strategy will be provided to set the context for calculating the refined person trip generation.

Refined Person Trip Generation

- The methodology and resultant multi-modal trips generated by the North Whiteley development will be set out, together with clear and concise tables demonstrating the refined person trip rates and trip generation figures.

- Example tables:

Table 4: Multi-Modal Trip Rates and Resulting Predicted Person Trips

Mode		Person Trip Rate			Person Trips		
		Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	AM						
	PM						
Vehicle Passengers	AM						
	PM						
Cyclists	AM						
	PM						
Pedestrians	AM						
	PM						
Public Transport	AM						
	PM						
Total Person Trips	AM						
	PM						

Refined Modal Split

- The overall modal split will be calculated and provided within a Summary table as below:

Table 5: Development Refined Modal Split

Mode	Residential
Vehicles	%
Vehicle Passengers	%
Cyclists	%
Pedestrians	%
Public Transport	%
Total	100.0%

3.8 Transport Impacts of Development

- 3.8.1 This section of the TA considers the impact of development proposals upon the local and strategic road network and includes details of junction capacity assessments undertaken to determine the existing and future capacity at key local junctions.

Transport Network Capacity

- 3.8.2 The impact in terms of transport network capacity will also be assessed for all modes including a review of the predicted level of bus and train patronage and a review of capacity across the local study area. This will be undertaken using the following methodology.

North Whiteley

Transport Assessment and Travel Plan Scoping Statement

- 3.8.3 In order to effectively evaluate the impact of the North Whiteley development on the local transport network it is proposed that a transport spreadsheet model will be created to predict the likely level of demand for travel. A SATURN traffic model will then be used to model the predicted assignment of traffic to the network within the local study area.
- 3.8.4 This process is described in further detail within the 'Transport Modelling Scope and Methodology Report' at **Appendix C**.

Study Network

- 3.8.5 A study network has been set out within the Transport Modelling Scope and Methodology Report for the purposes of the SATURN modelling. The spreadsheet model that will enable an evaluation of the likely impacts beyond the boundaries of the model and will enable junctions to be assessed should they be required. **Figure 4 at Appendix A** illustrates the local study area that the SATURN simulation network will cover, this is described in further detail within the 'Transport Modelling Scoping and Methodology Report' at **Appendix C**.

Assessment Years and Traffic Growth

- 3.8.6 It is envisaged that a planning application for the site will be submitted in late 2011, this will inform the assessment years chosen, in accordance with the DfT Guidance on Transport Assessment, which are likely to be as follows:
- 2016 (5 years after planning application)
 - 2021 (10 years after planning application)
 - 2026 (end of RSS period and full development build out)
- 3.8.7 These scenarios will be aligned with the development phasing schedule. It is expected that an understanding of the phasing of development will be available imminently to inform this element of the scope of works and this document will be amended once the information becomes available.
- 3.8.8 Central traffic growth factors will be calculated using TEMPRO / NTM growth factors for the local area of Whiteley, and these will be used as a maximum for growth on the network in the vicinity of Whiteley. However, as the site is a key strategic development, and other key strategic sites (e.g. Fareham) are likely to come forward in the immediate vicinity of Whiteley, it is considered that where traffic from these developments is added onto the network the TEMPRO / NTM factors should be reduced to recognise this extra growth on the network. This process will reduce the potential for double counting trips. The methodology for this will be set out and agreed with HCC and the HA in due course.

Traffic Distribution

- 3.8.9 A gravity model will be used to distribute development based trips, this model will be checked against existing statistics showing peoples distribution to work (2001 Census Journey to Work data) and school (HCC school data). The methodology for this model will be agreed with HCC and the HA before work commences.

- 3.8.10 The modelling will also take into account the development phasing for North Whiteley and North Fareham SDA to ascertain the development traffic changes on the M27 over the assessment period.

Junction Assessments

- 3.8.11 Junction assessments will be undertaken using the appropriate modelling software (ARCADY, PICADY, LinSig or TRANSYT). These assessments will be undertaken at the junctions highlighted red on **Figure 4** at **Appendix A** and potentially at the junctions highlighted blue following a proportional impact assessment being undertaken.
- 3.8.12 As agreed with the HA, only Junction 9 of the M27 would be modelled in the first instance to understand its operational performance. The assessment will, however, calculate the proportional impact of the development at Junctions 7, 8 and 10. Once this level of impact is known, PBA will consult again with the HA to agree whether further assessment is required.
- 3.8.13 As requested by the HA, an operational assessment (merge/diverge assessments) of the slip roads at Junction 9 of the M27 will be undertaken using the methodology outlined in DMRB TD 22/06. The need for assessment at Junctions 7, 8 and 10 will be discussed with the HA, as above.
- 3.8.14 The analysis of proportional impact will be undertaken based upon the year of the developments predicted full build out (2026) scenario compared to the 2026 base traffic + committed development scenario.

3.9 Package of Mitigation Measures

- 3.9.1 This section of the Transport Assessment will set out a consolidated schedule of any measures proposed to mitigate the transport impacts of development through:

Reducing the Need to Travel

- Specific Masterplan Measures

Maximising Sustainable Accessibility

- Walking and Cycling Measures
- Public Transport Measures
- Informed Traveller Measures
- Travel Plan Measures

Dealing with Residual Trips

- Network Demand Management Strategy
- Local Highway Improvements

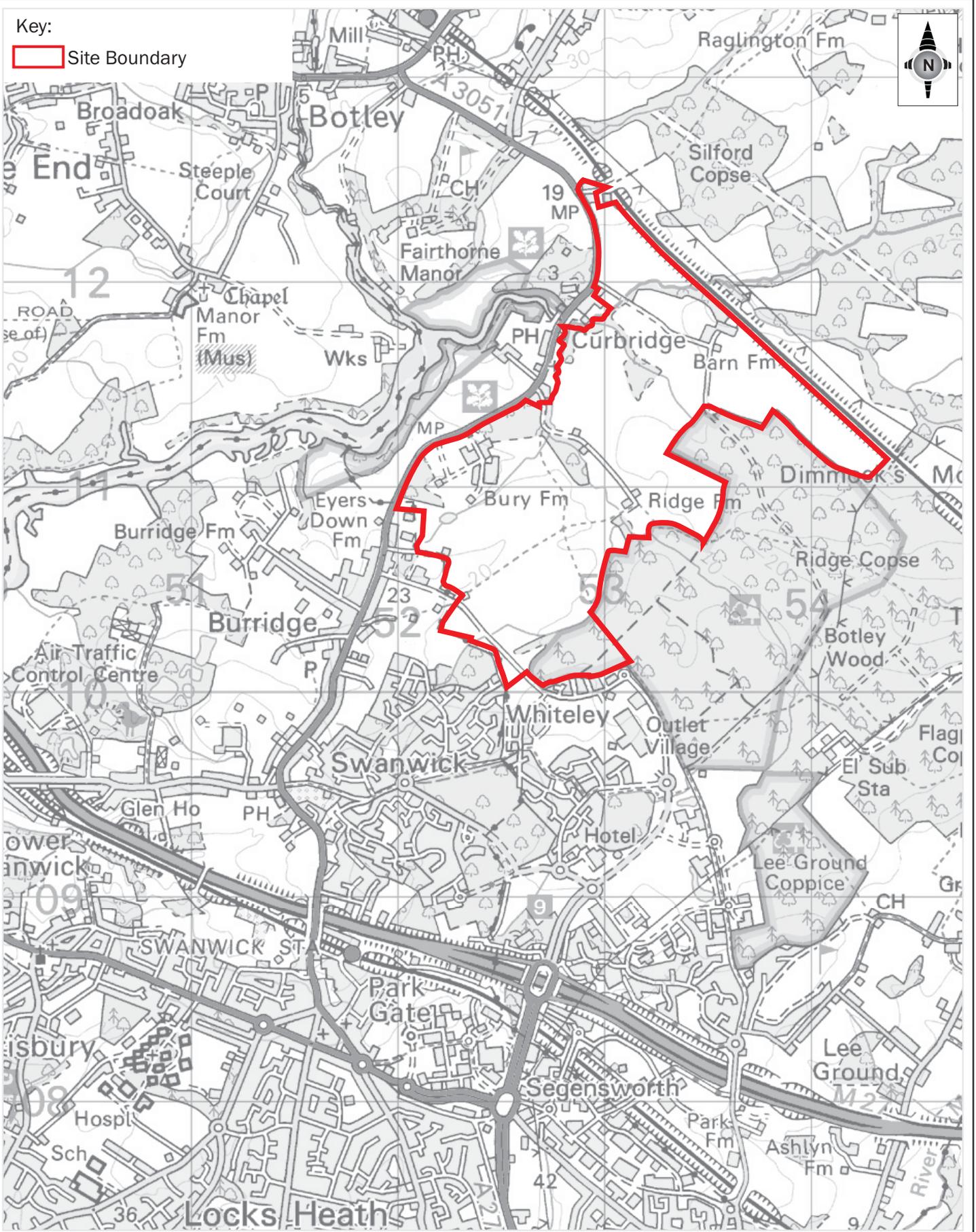
3.10 Summary and Conclusions

- 3.10.1 This will set out a summary of the assessment and identify any key issues and opportunities which may require further consideration with stakeholders before securing through appropriate legal agreements.

Appendix A – Figures

Key:

 Site Boundary



Offices throughout the UK,
continental Europe, Africa and Asia
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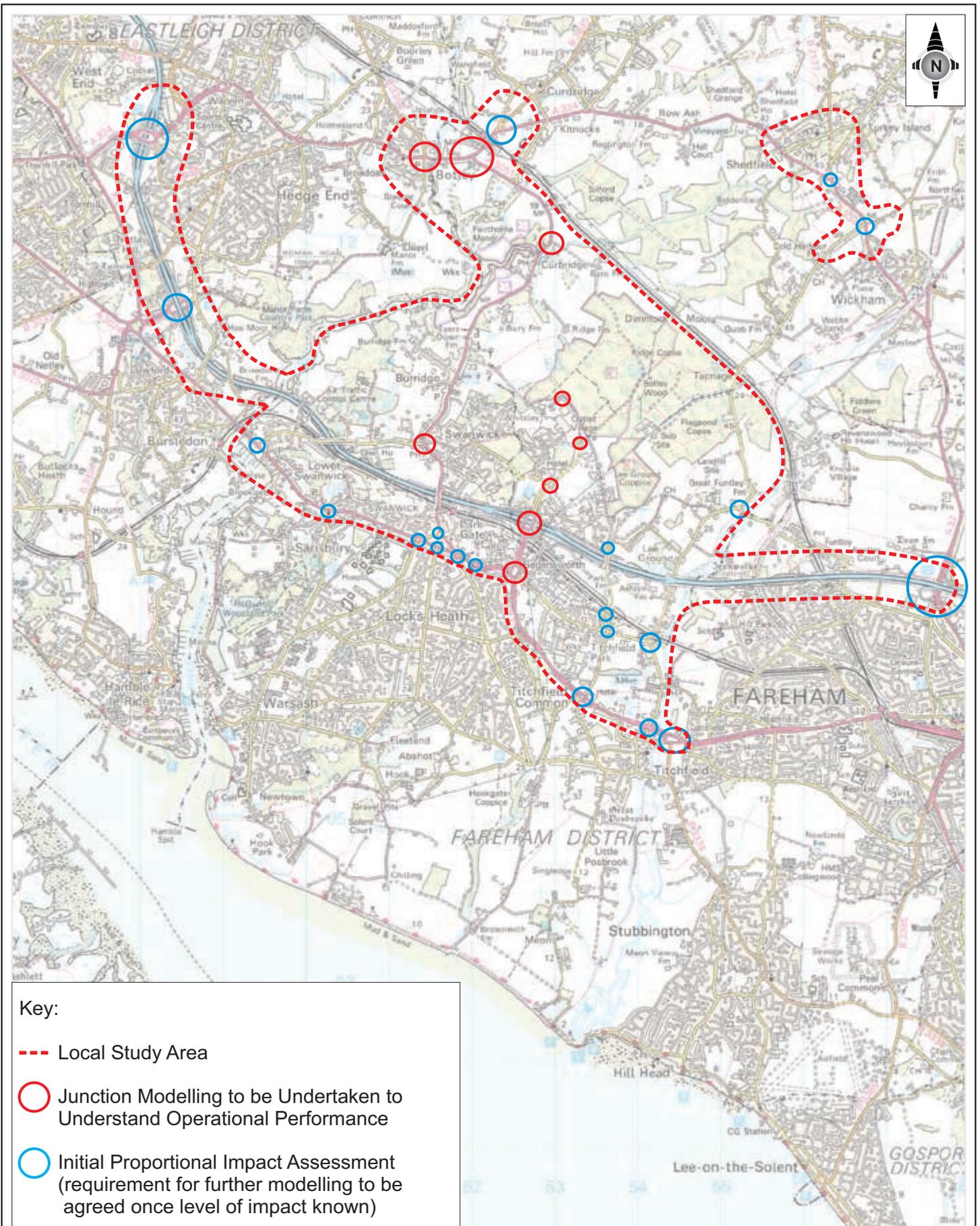
Client
**NORTH WHITELEY
CONSORTIUM**

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**NORTH WHITELEY
SITE LOCATION**

Date	02/06/2010
Scale	NTS
Drawn by	JH
Checked by	PR
Revision	-

FIGURE 1



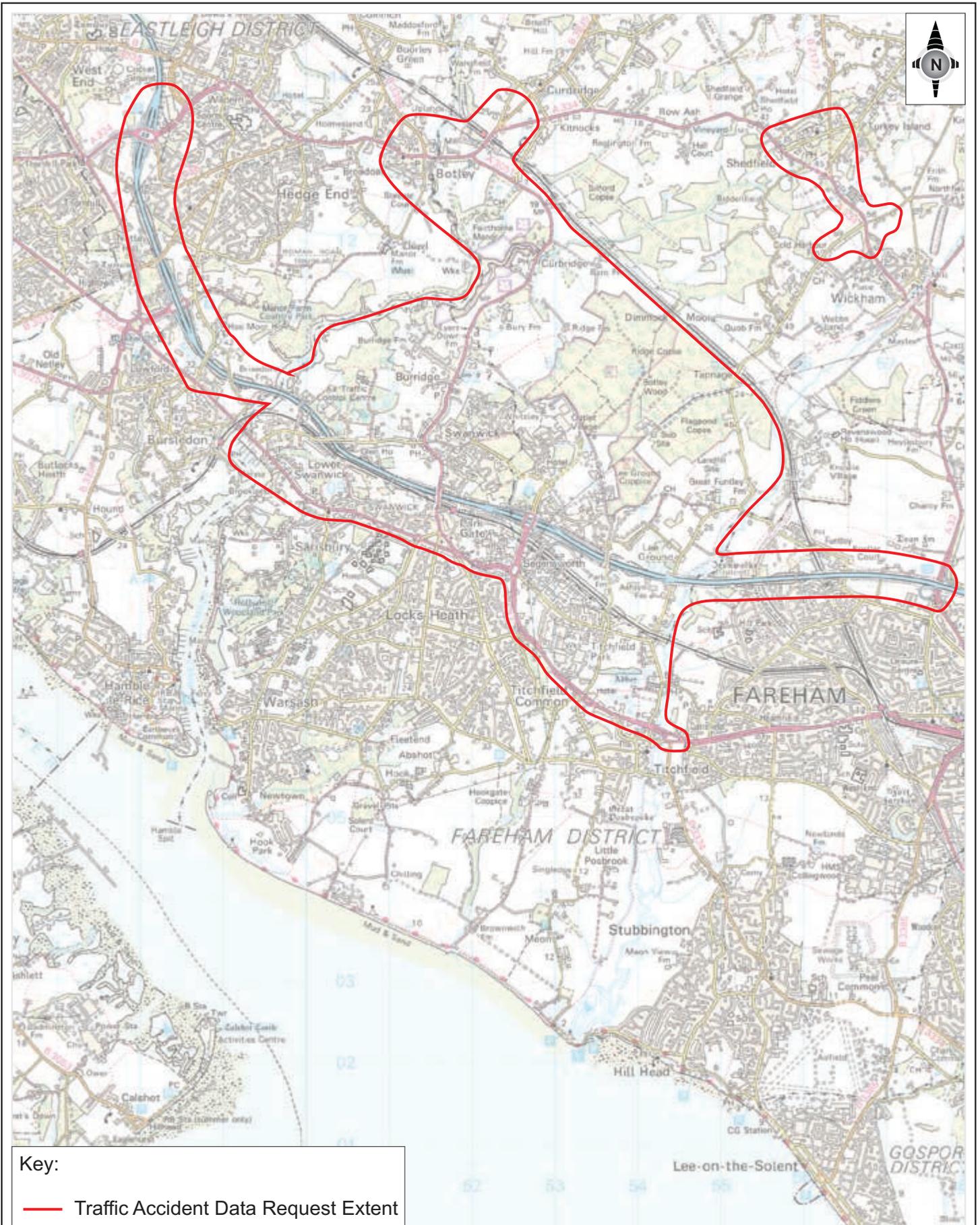
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**NORTH WHITELEY
LOCATION OF JUNCTIONS TO BE
ASSESSED**

Date	15/02/11
Scale	N.T.S
Drawn by	AS
Checked by	NG
Revision	-
FIGURE 4	



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**NORTH WHITELEY
ACCIDENT DATA REQUEST PLAN**

Date	16/07/10
Scale	N.T.S
Drawn by	AS
Checked by	PR
Revision	-
FIGURE 5	

Appendix B – TA Scoping Consultation

MINUTES



Meeting Title: North Whiteley Transport Assessment and Modelling Scoping Meeting with Highways Agency

Attendees: Cherrie Mendoza (Highways Agency)
Nigel Walkden (PB, HA Consultant)
Lauren Edser (PB, HA Consultant)
Neil Thorne (PBA)
Rob McDonald (PBA)
Gordon Finné (PBA)
Phil Rawlins (PBA)

cc:

Date of Meeting: Wednesday 2nd June 2010 @ Highways Agency, Dorking, 2pm

Job Number: 16659

Item	Subject
1.	<p>Overview</p> <p>NT began by outlining the purpose of the meeting: to agree the geographical and technical scope of a Transport Assessment and modelling evidence base to support the outline planning application for the proposed North Whiteley development.</p> <p>Some time was spent discussing the different models currently being constructed within the area and which purpose each one takes.</p> <p>It was confirmed that the modelling being undertaken by PBA was to support the outline planning application for North Whiteley and not primarily to support the core strategy evidence base (see Item 2 below), although it was noted that the timescales were such that the modelling processes being undertaken may be able to provide useful information for the evidence base for Winchester's Local Development Framework (LDF) process.</p> <p>The project timescales were set out as follows:</p> <ul style="list-style-type: none">• Modelling work is expected to be completed by early November 2010;• The current Core Strategy timetable identifies the next round of consultation to be undertaken in October / November 2010.• A Transport Assessment to support the planning application for the development is expected to be completed by March / April 2011. <p>NT informed the meeting that the Transport Strategy for the development is being considered with key stakeholders (incl. Highways Agency, Winchester City Council, Hampshire County Council, Fareham Borough Council and Eastleigh Borough Council) through parallel meetings being coordinated by WCC. The previous session was held on the 18th May 2010, at which PBA outlined the emerging masterplan and transport strategy for the site.</p> <p>It was discussed that some changes have been made to the site masterplan since the original Modelling Methodology Report was produced, the most important of which is the increase in residential dwellings from 3,000 units to 3,500 units.</p>

<p>2.</p>	<p>M27 Corridor Study</p> <p>NT clarified the role that PBA are currently undertaking with Heather Walmsley of Transport for South Hampshire (TfSH).</p> <p>PBA have been requested to undertake detailed junction testing of Junction 9 and surrounding local junctions (Segensworth and Whiteley Roundabouts) for HCC / TfSH to support their M27 Corridor Study. PBA have agreed to undertake this work in order to have early access to traffic flow information and results to inform the North Whiteley modelling works.</p> <p>The intention is that this detailed junction testing should be completed in time for a committee meeting to be attended by TfSH on the 22nd June.</p> <p>The HA and their consultants (PB) have received and reviewed the M27 Corridor Study from TfSH and have identified a number of issues on which they require clarification. PBA requested copy of the queries and the HA confirmed that they should be able to make this available.</p> <p style="text-align: right;">Action: CM</p> <p>PBA confirmed that they were looking to use assumptions from the M27 Corridor Study as a basis for the North Whiteley model although were uncertain at this stage exactly how much of the information would be used directly. PBA have requested output from the study from TfSH but this has not yet been received.</p> <p>The HA were assured that PBA would ensure that any assumptions made as part of the modelling currently being undertaken would be specific to the North Whiteley project and that HA agreement would be sought.</p> <p>Once PBA has received the M27 Corridor Study and HA comments, PBA are to produce a schedule setting out each individual assumption to be used for the North Whiteley model, any HA comments, and the proposed 'refinement' to take account of HA comments and any changes required to reflect PBA transport strategy.</p> <p style="text-align: right;">Action: PBA</p> <p>It was suggested that the HA should feed into the modelling process on an ongoing basis with PBA issuing methodology notes for each modelling stage for feedback on each section. It was discussed however, that this process would require constant communication between the two parties and a quick turnaround would be required in order to meet the tight project deadlines. PBA to provide a more detailed modelling programme and identify the modelling stages at which HA approval would be sought.</p> <p style="text-align: right;">Action: PBA</p>
<p>3.</p>	<p>Run Through of PBA Scoping Statement</p> <p>The layout and function of the Scoping Document being prepared by PBA was discussed. It was noted that this would be an evolving document that would take into account the outcomes of this and all meetings to be held going forward as well as any comments received from the HA / HCC through other means.</p> <p>NT mentioned that the Transport Strategy for the site would be discussed in detail at the next WCC Transport Strategy Meeting on the 30th June 2010.</p> <p>It was confirmed by PB that accident data for the M27 would be available from either HCC or Hampshire police. PBA to source accident data to cover M27 J9 and approaches, together with the local road network, to be agreed with HCC.</p> <p style="text-align: right;">Action: PBA</p>

	<p>CM confirmed that there were no planned improvements for the M27 Junction 9, however CM would endeavour to find out if any feasibility work had been carried out at any time for improvements to this junction.</p> <p style="text-align: right;">Action: CM</p> <p>It was agreed that the Scoping Statement should set out the parking standards to be adopted for use at the North Whiteley development, in line with WCC's Parking Standards SPD.</p>
<p>4.</p>	<p>Issues Raised within CM letter of 14th May 2010</p> <p>Comments within CM's letter to PBA of the 14th May 2010 were discussed. The agreements / discussions were as follows:</p> <p>Section 2.1 / 2.2 – The objectives of the study have already been outlined earlier in the meeting, namely for the purpose of getting planning approval of the proposed North Whiteley development.</p> <p>Section 2.3 – In terms of integrating into the wider modelling work being undertaken by TfSH, it was agreed that the lowest common denominator in terms of zoning would be established to pass information between project teams. Since the sub-regional model is being undertaken to a completely different timescale (currently programmed for 2011, but potentially subject to review), it was identified that PBA would proceed with modelling in any case, if this zone-alignment doesn't happen in time and HCC accept this.</p> <p>The North Whiteley modelling will take the M27 Corridor Study modelling as a starting point and will use this to take into account the cumulative impact of other developments in the demand modelling. It was, however, mentioned that the assumptions which PBA will use, may well diverge from those used as part of the M27 corridor study as PBA will look to refine the assumptions for the particular package of measures being proposed. (for example it is understood that the corridor study used generic trip rates for all development areas, whereas the North Whiteley modelling will be more specific in its assumptions).</p> <p>Section 3.1 – It was agreed by the HA / PB that the study area of the SATURN model set out within the scoping report is acceptable, i.e. that it includes J9 of the M27 only. The HA did, however, state that the potential impact upon downstream motorway junctions (J7, J8 and J10 of the M27) would need to be quantified (total development flows through junction and proportional impact). Should the HA deem this as a material impact, detailed assessment of those junctions may need to be undertaken in due course using junction specific modelling packages.</p> <p>It was agreed that any assumptions made in terms of trip generation / distribution etc. would be clarified with the HA. PBA suggested that since the starting point will be the M27 Corridor Study model, that we would have to have sight of this report prior to finalising this. CM agreed that she will check internally and see if she can issue the HA's comments on the M27 model methodology to PBA in order to assist PBA in the process of refining the North Whiteley model assumptions.</p> <p style="text-align: right;">Action: CM</p> <p>The HA / PB suggested that the peak period of the motorway may not be the same as the peak period on the local network which PBA are planning to use for the model. PBA stated that for the purposes of establishing the most effective localised smarter choices measures that the model should focus on the local peak period.</p>

It was acknowledged by PBA that some consideration should be given to the worst combined peak period on the motorway as well as a, most likely off-line, sensitivity test. As part of this the motorway merge capacity should be considered using the processes set out within DMRB

Section 3.2 – The HA's concern about input data is related to the M27 Corridor Study modelling. Further details on data used within the North Whiteley model will be supplied to the HA / PB in the form of an updated Scoping Statement to allay these concerns, once PBA have reviewed the M27 Corridor Study model and report.

The comment with regards to seeding was agreed by PBA.

Section 3.3 – PBA confirmed that speed-flow curves would be considered in network building. Also journey time information will be supplied as a check and it was likely that Trafficmaster data would be purchased for this. HA confirmed that Trafficmaster data would be acceptable provided there was sufficient sample size. Details of this are to be included within the PBA modelling scoping note.

Section 3.4 – PB recommended that both time and distance parameters should be used in assignment in line with WebTAG requirements. Although PBA are not convinced that this is a true reflection of route choice, PBA conceded that this could be used within the assignment model to ensure that the model would be considered acceptable to PB / HA.

Section 4.1 - Some further clarification will be required on the route-map and phasing of development and how this will relate to modelling scenarios tested. CM is keen to see that the transport strategy for the site is phased with the build out of the development. NT agreed and suggested that this will be discussed through the WCC Transport Strategy workshops.

For future demand, the M27 assumptions in terms of development quantum and background growth (TEMPRO) would be adopted as a starting point for the North Whiteley modelling work and adjusted where deemed necessary. Again, all assumptions should be cleared with the HA and also HCC.

Section 4.2 – PBA explained that clever cars were not in fact 'clever' but that this terminology was only coined to refer to an additional user-class which may be required within the assignment model to be able to simulate that certain routes may have access restricted to only certain vehicles. The term 'clever cars' will be clarified within the scoping document to avoid further confusion.

Forecast year and forecast figures are to be agreed with the HA/HCC going forward as a matter of priority.

Section 4.3 – It was clarified that the statement within the North Whiteley modelling scoping note referring to Eastleigh Riverside employment development is meant to be read in such a manner as that any sensitivity testing regarding that development being in / out would only affect the distribution of the North Whiteley trips as opposed to testing the impact of the Eastleigh Riverside development itself.

LE confirmed during the meeting that the M27 Corridor Study modelling work included the Eastleigh Riverside development and therefore assessed the cumulative impacts of the proposed development on the M27 corridor.

5.	<p>NW Comments / Issues Raised on PBA Modelling Transport Modelling Scope and Methodology Report</p> <p>In addition to the issues raised by CM in her letter, NW had a few further questions arising from reading the Modelling scoping document / note.</p> <p>Figure 3-1 – It was suggested that Figure 3-1 is misleading and would indicate Variable Demand Modelling. GF concurred and said that the figure will be amended to remove the loops between assignment and distribution etc.</p> <p>Section 3.2 – It was confirmed by PBA that any survey data used within the modelling would be suitably documented. This would also include journey time routes. PBA pointed out that since the inception of the modelling scoping note that a lot of progress has been made in understanding what data is available and still to be commissioned. This will be included in the revision of the modelling scoping note.</p> <p>PBA confirmed that distortion of the matrices would be monitored within the matrix estimation procedure. PB stated that due to their previous experience, they would also recommend that the ‘seeding’ is cleaned up after processing.</p> <p>NW inquired as to whether different trip purposes were to be assigned using different generalised costs. PBA confirmed that for all trip purposes that one assignment value will be used and not split specific per purpose. (Post meeting note: GF and NW had a telephone discussion regarding this after the meeting and it was agreed that PBA were to proceed with using one generic value, but that a sensitivity test would be undertaken with different values. This will then be discussed further at a subsequent meeting.)</p> <p>Convergence findings will be incorporated in future reporting.</p> <p>PB asked which elasticity values would be used within the choice modelling and if these would be as per the AECOM report recently handed to PB by Helen Bowkett. PBA will confirm which values will be used and from which source these are.</p> <p>Journey time routes will be added to the report to provide an overview of the validation routes chosen. An overview of the data to be supplied by Trafficmaster to provide a basis for strategic route choice will also be provided.</p> <p>PBA to update the Scoping Statement and Modelling Methodology Report following review of the M27 Corridor Study Report and the HA’s comments on this document. PBA to also forward to HCC in advance of the separate TA Scoping Meeting with HCC on 9th July 2010.</p> <p style="text-align: right;">Action: PBA</p> <p>In order to ensure that information is circulated in an efficient and coordinated manner, all communication to be circulated via NT.</p>
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MINUTES



Meeting Title: North Whiteley Transport Assessment Scoping Meeting with Hampshire County Council

Attendees: Steve Jenkins (HCC);
Stephen Gee (HCC);
Sophie Brown (HCC);
Anthony Russell (PBA);
Neil Thorne (PBA);
Gordon Finné (PBA);
Rob McDonald (PBA);
Phil Rawlins (PBA)

Apologies: Alison Linnell (HCC)

cc: Cherrie Mendoza (HA)

Date of Meeting: Friday 9th July 2010 @ HCC, Winchester, 10am

Job Number: 16659

Item	Subject
1.	<p>Overview</p> <p>NT provided an overview of the project in terms of the following items:</p> <ul style="list-style-type: none">• TA / TP Scoping• Transport Strategy – WCC Workshops• Transport Modelling Scope & Methodology Report (TMSMR) <p>NT began by outlining the purpose of the meeting: to agree the geographical and technical scope of a Transport Assessment and modelling evidence base to support the outline planning application for the proposed North Whiteley development.</p> <p>SJ apologies for AL's absence. AL was to consider and discuss the technical details of the TMSMR at the meeting and therefore these detailed comments would need to be fed through to PBA upon AL's return.</p> <p>NT informed the meeting that the Transport Strategy for the development is being considered with key stakeholders (incl. Highways Agency, Winchester City Council, Hampshire County Council, Fareham Borough Council and Eastleigh Borough Council) through parallel meetings being coordinated by WCC.</p> <p>The previous session was held on the 30th June 2010, at which PBA outlined the emerging masterplan and transport strategy for the site.</p> <p>It was discussed that some changes have been made to the site masterplan since the original Modelling Methodology Report was produced, the most important of which is the increase in residential dwellings from 3,000 units to 3,500 units.</p>
2.	<p>Feedback from HA Scoping Meeting Discussions</p> <p>GF provided an overview of discussions from the Scoping Meeting that was held with the HA on 2nd June 2010 and tabled draft minutes of the meeting. GF confirmed that discussions continue to agree residual technical matters and final minutes would be circulated to all in due course.</p>

	<p>The discussions centred on the M27 Corridor Study Assumptions and PB's (HA Consultants) detailed technical comments on the Modelling Methodology.</p> <p>PBA confirmed that they were looking to use assumptions from the M27 Corridor Study as a basis for the North Whiteley model. CM stated that the HA had raised concerns on the assumptions within the M27 Corridor Study and would wish to see these addressed within the PBA Methodology.</p> <p>Once PBA has received the M27 Corridor Study and HA comments, PBA agreed to produce a schedule setting out each individual assumption to be used for the North Whiteley model, any HA comments, and the proposed 'refinement' to take account of HA comments and any changes required to reflect PBA transport strategy.</p> <p>SG confirmed that HCC also had concerns regarding the study, namely the distribution methodology that was used to determine the likely level of trips travelling north from Whiteley and the North Whiteley site. Concern was also raised as to the trip reduction methodology within the study. SG agreed to forward any formal comments that had been issued by HCC in response to the M27 Corridor Study, for consideration as part of PBA's 'M27 Corridor Study Assumption Refinement' Schedule.</p> <p style="text-align: right;">Action: SG</p> <p>The Modelling methodology was largely agreed with the HA and their consultant's, with detailed comments set out within Item 4 of the Draft Minutes.</p>
<p>3.</p>	<p>HCC Comments on Transport Modelling Scope & Methodology Report</p> <p>The following comments were raised by HCC in relation to these minutes and the TMSMR, however, SJ was to seek the views of AL on the technical content and formally respond to PBA.</p> <p style="text-align: right;">Action: SJ / AL</p> <p>In the meantime, the TMSMR will be updated in line with these initial comments:</p> <ul style="list-style-type: none"> • HCC have a requirement for us to provide an assessment of the A334 / B2177 priority junction and the A334 / Blind Lane / Titchfield Lane signalised junction, this should be included within the SATURN buffer network (GF and AL to confirm). The data extracted from the modelling should be used to first inform the proportional impact the development may have on these junctions and then full testing will be carried out, if it is considered that the development will have a material impact and further assessment is deemed necessary by HCC. • Strat-e-gis data recorded by HCC in the Wickham area could be used for journey re-distribution analysis to understand the propensity of trips to re-distribute through these areas. • Future model scenario years to set out information including development phasing / quantum, access and location, infrastructure and supporting transport strategy. • PBA to produce an assessment programme detailing the dates at which PBA will seek HA / HCC feedback on key modelling assumptions. <p style="text-align: right;">Action: PBA</p>

	<p>The availability of Strat-e-gis & traffic flow information to support the modelling of the A334 junctions will be researched by SG, with any relevant data forwarded to PBA. Action: SG</p>
<p>4.</p>	<p>HCC Comments on Transport Assessment Scoping Statement</p> <p>NT ran through the Draft Transport Assessment Scoping Statement and HCC provided the following comments which PBA will incorporate into the Draft Scoping Statement.</p> <p>SG informed that HCC are about to commence a study of the A27 Corridor, to include the creation of a PARAMICS model that will include the Brook Lane Roundabout, the Botley Road Roundabout, Segensworth Roundabout, St Margarets Lane Roundabout and Titchfield Gyratory. The potential benefits of this study were discussed; however it was deemed that the timescales would be unlikely to fit with those of North Whiteley.</p> <p>SJ confirmed that the use of ARCADY / PICADY / TRANSYT / LINSIG were appropriate for the undertaking of junction models to inform the Transport Assessment.</p> <p>PBA agreed that a plan should be prepared for the Scoping Statement to illustrate the junctions that are to be modelled and those that will be modelled should the proportional impact of development be deemed material. Action: PBA</p> <p>The scenario to be used to test the proportional impact of development needs to be added to the Scoping Statement and agreed with HCC / HA. Action: PBA</p> <p>PBA agreed that a plan should be produced illustrating the extent of accident data to be assessed. It was agreed that accident data should be collected for a 3 year period with an update undertaken prior to the issue of the Transport Assessment. Action: PBA</p> <p>It was agreed that the traffic growth assumptions within the Scoping Statement needed consideration and amendment. Action: PBA</p> <p>A network drawing should be included within the TA setting out each link with the traffic that has been added due to growth / extant development / new development for ease of analysis by HCC. Action: PBA</p> <p>PBA to collate all information as above and circulate to HCC / HA as a Final Draft Transport Assessment Scoping Statement, with the TMSMR forming an Appendix. Action: PBA</p>
<p>5.</p>	<p>AOB</p> <p><u>S106 Contributions</u></p> <p>NT queried HCC's position on the potential introduction of CIL, noting that CIL legislation would require Section 106 tariff approaches to be dropped in 2014. SJ confirmed that HCC are still using their tariff system (Transport Contributions</p>

Policy, September 2007) based on Circular 05/05.

SJ stated that this is better related to smaller sites, with larger sites such as North Whiteley more likely to identify specific measures as part of the Transport Assessment process. However, SJ suggested that the Policy provides a useful means of gauging the likely scale of any contribution which would be sought for North Whiteley.

As set out within the Draft Transport & Access Strategy Framework document (through the WCC Transport Workshops), PBA are currently exploring the opportunity of setting up an intervention led Transport Review Group (TRG) approach.

This would set out an on-going involvement in managing the transport network and a Travel Plan Monitoring structure to respond by intervention at particular waypoints. As part of this process, a more refined approach to S106 contributions may be appropriate, whereby the use of transport measures are reviewed and changes agreed throughout the build out of the development to respond to the travel characteristics at that time.

SJ suggested that this may be acceptable to HCC following further consideration and presentation of a detailed approach. Normally HCC would have contributions legally secured by 2/3 of development completion.

Land Ownership

NT stated that PBA are currently collating highway boundary information, together with adjoining Land Registry information across the local road network to understand the extent of land available for any off-site highway improvements. In particular, PBA were interested in Whiteley Way and the opportunities for public transport priority measures along its length.

On site observations suggest that, whilst Whiteley Way has been constructed as a single carriageway between roundabout R1 and R2, it is clear that it has been designed as a dual carriageway to leave open the option of widening in the future. However, neither the highway boundary information nor Land Registry searches identify HCC's ability to deliver this widening and therefore was likely secured through legal agreement with Goodman, as freehold landowner.

SJ confirmed that he was chasing colleagues for a response on the legal right of HCC to purchase land to dual Whiteley Way between roundabouts R1 and R2.

Action: SJ

Our ref: SU 531 102
Your ref: 16659-126

Neil Thorne
Peter Brett Associates
Caversham Bridge House
Waterman Place
Reading, Berkshire
RG1 8DN

Cherrie Mendoza
Network Planning Manager
1B
Federated House
London Road
Dorking RH4 1SZ

Direct Line: 01306878119
Fax: 01306878147

5 October 2010

Dear Neil,

NORTH WHITELEY MDA TRANSPORT ASSESSMENT AND TRAVEL PLAN SCOPING STATEMENT

Thank you for giving us the opportunity to comment on the above document.

As you are aware, in the case of North Whiteley our interest primarily relates to M27 Junction 9, which would provide the main access to the development. This junction currently experiences heavy congestion in the AM and PM peak periods. Consequently the HA would be highly concerned if any additional traffic were added to this junction without careful consideration of mitigation measures. Whilst, the proximity of M27 Junction 9 makes it our primary concern, it should be stated that the HA would also be concerned if any additional traffic were added to the M27 or any of its junctions without careful consideration to mitigation measures.

GENERAL COMMENTS

3 Transport Assessment

3.4 Existing Transport Conditions

At our meeting on 2 June 2010 it was agreed that the Saturn model would be limited to cover Junction 9 only. However, if the interim results showed potentially material impacts at M27 Junctions 7 or 8, further junction analysis using the appropriate software would be need to be undertaken. Therefore the study area would need to be extended if and when impacts were confirmed at Junctions 7 or 8.

We would also request an operational assessment (merge/diverge assessments) of the slip roads at M27 J7, J8 and J10 using the methodology outlined in DMRB TD 22/06.

The current personal injury accident records for the most recent three/five-year period should be collected for the study area, which includes M27 Junction 9. Additionally if impacts are confirmed at Junctions 7 and/or 8, accident data will need to be collected at these locations.

The assessment should also identify any significant highway safety issues and provide an analysis of the recent accident history of the study area. Critical locations on the road network with poor accident records should be identified. The Transport Assessment should determine whether the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic management measures will help to alleviate the problems.

As part of the Transport Assessment the SRN accident records should be compared with local average accident rates and appropriate national statistics.

3.5 Land Use and Transport Strategy

Other than the North Fareham SDA, the HA is not aware of any local transport improvements being delivered within close proximity of the North Whiteley site.

Public Transport

The HA will be looking for a strong public transport strategy to be delivered alongside the development. Every effort should be made to mitigate the traffic impact of the development by managing down the demand for private car trips and encouraging public transport usage. This should help to increase the use of sustainable modes in the area whilst minimising the number of vehicles using M27 Junction 9, as far as possible.

It should be noted that Transport Secretary Philip Hammond has recently announced the suspension of the M4 Bus Lane thereby providing an extra lane to all motorists travelling towards London. This announcement could potentially have an impact on the proposed BRT network in South Hampshire and therefore should be considered in developing North Whiteley's transport strategy.

3.6 Transport Impacts of Development

Regular meetings with the WCC, HCC and the HA are recommended to discuss the SATURN model so that feedback is provided at key stages of the project. This will help to ensure that as much of the modelling work as possible is agreed ahead of the planning application submission.

Study Network

Detailed junction capacity analysis will be required at M27 Junction 9 and potentially Junctions 7 and/or 8 if the impact at these junctions is considered material.

Assessment Years and Traffic Growth

Trip Rates

It is requested that the proposed growth factors and trip rates are provided to the HA as soon as possible so that they can be agreed before use in both the Transport Assessment and the modelling.

Traffic Distribution

Trip distribution and the assignment (including the methodologies applied) of any vehicle traffic generated by the development on the SRN must be included and justified within the TA.

In the absence of dedicated survey data, it would be reasonable to estimate the trip distribution based on the 2001 Census Travel to Work data, as suggested in section 2.2 of the scoping note. The HA would request that enough detail is provided in relation to any calculations that are undertaken so that the HA is able to follow the methodology for deriving trip rates and distributions.

We would strongly suggest that the modelling takes into account the development phasing for North Whiteley and North Fareham SDA to ascertain the development traffic changes on the M27 over the assessment period. These would help in the development of a mitigation works implementation plan which would identify the mitigation required to successfully deliver North Whiteley in transport terms.

TRAVEL PLAN

The Travel Plan should be closely linked to the Transport Assessment and should reflect the objectives and requirements as set out in PPG13 and the DfT document "*Using the planning process to secure travel plans*". It should be emphasised that the HA actively supports the promotion of sustainable travel wherever possible.

We would also suggest that the parking strategy be consistent with the aim of encouraging sustainable modes of transport and therefore should be linked to travel planning measures identified in the process.

In order to be an enforceable and successful Travel Plan it must meet the following criteria:

Setting Targets

Trip rates and target of modal split should be determined for all transport modes transferred through into the TA.

These targets should be agreed with the HA, Hampshire County Council (HCC) and Winchester City Council (WCC) prior to finalising and should focus on achievable/practical outputs. The Travel Plan must be in place prior to the site opening.

Monitoring

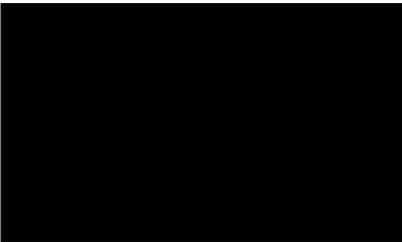
The monitoring survey should be carried out during a neutral time of the year, aiming to collect at least 95% of all person trips into and out of the site during the surveyed day. Monitoring arrangements must be agreed with the HA, HCC and WCC at the outset and must include appropriate triggers/restrictions if targets are not met.

Enforcement

If modal split targets are not then met (i.e. reducing the sole use of private car), then enforcement measures must be introduced. These enforcement triggers/restrictions must be agreed with the HA, HCC and WCC before hand.

This process must be continually monitored and updated over an agreed period of time to ensure that modal split targets are consistently met, introducing enforcement measures where necessary.

We hope that the above comments are helpful to you. Please do not hesitate to contact me to discuss anything further.



Network Delivery and Development
Email: cherrie.mendoza@highways.gsi.gov.uk

Appendix C - PBA 'Transport Modelling Scope and Methodology Report', August 2010

North Whiteley Consortium

North Whiteley

**Transport Modelling Scope and
Methodology Report**

Project Ref: 16659/126

Doc Ref: R001/revV5

August 2010

Peter Brett Associates LLP

10 Queen Square

Bristol

BS1 4NT

T: 0117 9281560

F: 0117 9281570

E: bristol@peterbrett.com



North Whiteley
Transport Modelling Scope and Methodology Report

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Project Name: North Whiteley
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Report Title: Transport Modelling Scope and Methodology Report
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	Name	Position	Signature	Date
Prepared by:	Gordon Finne	Senior Associate	GF	04/02/2010
Reviewed by:	Rob McDonald	Senior Associate	RMcD	17/02/2010
Approved by:	Tony Russell	Partner	APR	23/04/2010
For and on behalf of Peter Brett Associates LLP				

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North Whiteley
Transport Modelling Scope and Methodology Report



Contents

1	Overview	1
1.1	Background	1
1.2	Structure of this note	1
2	Aims and Objectives	2
2.1	What is the objective of the study?	2
2.2	What are the further uses of the model?	2
2.3	Recommendations prior to outset of building the model	2
3	Methodology – Base year	4
3.1	Overview	4
3.2	Demand modelling	5
3.3	Network creation	7
3.4	Assignment modelling	7
4	Methodology – Forecast years	9
4.1	Overview	9
4.2	Demand modelling	9
4.3	Network creation	10
4.4	Assignment modelling	10
4.5	Assessing Impacts outside of the Model Area	10
4.6	Scenario testing	11

Tables

Error! No table of figures entries found.

Figures

- Figure 3-1: Four Stage Model
- Figure 3-2: Model and Development Area
- Figure 3-3: Available Survey Data
- Figure 3-4: Model Validation Journey Time Routes
- Figure 3-5: Strategic Journey Time Routes

Appendices

- Appendix A - Figures
- Appendix B – Draft Programme

1 Overview

1.1 Background

- 1.1.1 This scoping document has been prepared in accordance with the “Guidance on Transport Assessment” published by Communities and Local Government and Department for Transport (March 2007) and should be read in conjunction with the North Whiteley Transport Assessment Scoping Note.
- 1.1.2 Preliminary discussions with the Planning and Transport Authorities have indicated the need to build a traffic model in order to model the impact of the proposed development at North Whiteley on the transport network. This latest draft of the note sets out a suggested process for undertaking a multimodal assessment of the proposed development and has been updated to reflect discussions held with representatives from the Highways Agency and their consultants Parsons Brinckerhoff on the 2nd of June 2010 as well as a meeting with the local council on the 9th July 2010...
- 1.1.3 The process set out in this report represents a robust and pragmatic approach to multimodal evaluation, combining spreadsheet modelling with SATURN modelling to evaluate the development proposals.
- 1.1.4 Alongside these proposals we suggest that an agreement schedule with the HA/HCC/TfSH is set up in which any assumptions which are made as part of the modelling and appraisal process is agreed.

1.2 Structure of this note

- 1.2.1 This Scoping and Methodology Report is split into 3 further sections and associated appendices:
- **Section 2:** Outlines the aims and objectives of the modelling element of the project and includes recommendations of how this model might interface with the work Transport for South Hampshire (TfSH) are undertaking on modelling in the area if required.
 - **Section 3:** sets out the technical methodology for the base year modelling exercise and is split into sub-headings of demand and network modelling.
 - **Section 4:** sets out the technical methodology for the forecast years both in terms of demand and network modelling and provides an overview of potential scenario testing.
 - **Appendix A** contains the figures referenced within this Report.
 - **Appendix B** contains a revised schedule of the proposed modelling tasks as well as a proposed agreement schedule of assumptions.

2 Aims and Objectives

2.1 What is the objective of the study?

- 2.1.1** The objective of this study is to ensure that the proposed Transport Modelling provides a sound basis for assessing the development proposals at North Whiteley. It is proposed that the site will be included within the Winchester City Core Strategy document which we understand will be subject to further consultation (Pre Submission) in October 2010. Any technical work required to inform this process will need to be completed by September 2010.
- 2.1.2** The modelling work is being undertaken to provide the basis for the Transport Assessment (TA) and Environmental Statement (ES) in support of a planning application in spring 2011.
- 2.1.3** It is recognised that TfSH are undertaking their own strategic modelling of the Whiteley area and have commissioned other studies including a strategic M27 corridor study. It is also understood that they are also in the process of developing a strategic model of the Solent area although this is not due to be completed until the end of 2011. Due to timescale constraints, it was agreed with TfSH that a separate model should be created for the assessment of the North Whiteley development proposals.
- 2.1.4** The core objective for the transport model will be to validate existing conditions on the network and to then assess future travel demand and the impact of the proposed development at North Whiteley. A package of transport and related measures (Transport Strategy) will be developed through the Transport Assessment process aimed at mitigating the potential impact arising from the development impact. In addition consideration will be given to reducing existing demand for travel in the greater Whiteley area.

2.2 What are the further uses of the model?

- 2.2.1** The model will look at a defined number of forecast scenarios which are set out in this document and which will be discussed with the approving authorities with the aim to demonstrate that the total transport strategy package proposed is sufficient to suitably mitigate a large element of the development impact upon the transport network. Alongside this, there may be a requirement from the developer to see further model runs which have a more detailed breakdown of development build-out scenarios in order to assess infrastructure requirements and the relationship with the implementation of the package of transport measures.
- 2.2.2** The model will be used to output data for Air Quality and Noise modelling. Factors will be used to convert from the modelled peak period flows to the necessary 18 hour and 24 hour data.

2.3 Recommendations prior to outset of building the model

- 2.3.1** The purpose of the M27 Corridor study is to assess the cumulative impact of major developments on the M27 motorway, motorway junctions and the links to major

developments, between Junctions 5 and Junctions 12. A 'parallel study' will focus on the more detailed transport interventions proposed as part of each development.

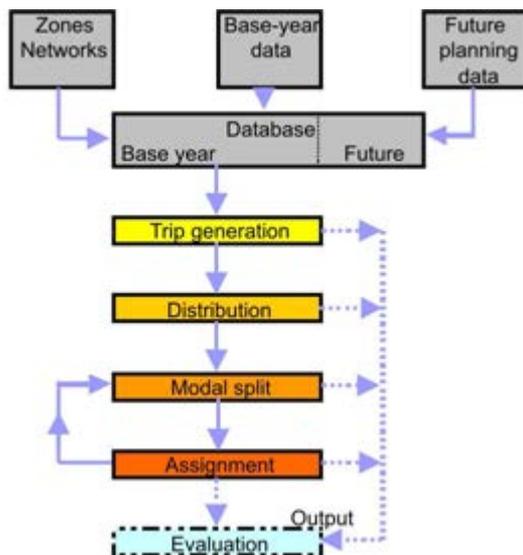
- 2.3.2** These studies will inform TfSH who have responsibility for delivering the future transport network for the sub-region.
- 2.3.3** Discussions have been held with TfSH and it was decided that due to the timescale-requirements of the assessment of the proposed North Whiteley development, that a separate model should be constructed to test the proposals. Working on the basis that the assumptions adopted for the creation of the M27 model have been generally sanctioned by TfSH and the HA, these assumptions will form the base-line of the modelling that will be undertaken for the North Whiteley assessments. These assumptions will be reviewed and where necessary amended with more detailed data/assumptions by the North Whiteley project team, also taking due account of any recommendations made by the HA on the M27 modelling work.
- 2.3.4** As part of securing access to the modelling data the North Whiteley Consortium agreed to undertake the detailed TRANSYT modelling of Junction 9, Segensworth Roundabout and the Whiteley Roundabout using traffic flows supplied by TfSH from the M27 Corridor study. This work in no way relates to any modelling or assessment work undertaken as part of the North Whiteley proposals. However, it is proposed that the validated base TRANSYT models will also be used as the base models for the detailed junction assessments following completion of the model.
- 2.3.5** It is anticipated that in seeking compliance with the modelling undertaken as part of the M27 Corridor Study this will enable PBA, the HA and TfSH to reach agreement more quickly on the local SATURN model as the basic assumptions will have already been partially agreed upon.
- 2.3.6** Furthermore it is proposed that a regular agreement schedule is set up in which key assumptions used within the modelling and appraisal are agreed with the HA/TfSH/HCC. At each key stage of the modelling process, internal Technical Notes are drawn up setting out the methodology for that particular task. These should form the background to any agreement discussions.
- 2.3.7** Discussions will be held with MVA, who are the consultants currently setting up the Sub-Regional model, to see if a common denominator in regard to the zoning system can be defined to allow easier data-comparisons in future.

3 Methodology – Base year

3.1 Overview

3.1.1 The model will be built on the structural basis of a standard four stage model as set out in Figure 3-1 below:

Figure 3.1: Four Stage Model



3.1.2 It is recognised that only some of these elements will be undertaken in a dedicated transport modelling package. The trip generation, distribution and assessment of modal split will be dealt with in a separate spreadsheet type environment and in turn will be fed from information based upon the assignment model and located within the SATURN suite of programmes. Any assumptions relating to trip generation rates and distribution will be agreed with the HA and HCC/TfSH. Some data handling may also be undertaken within the SATURN environment. The reasons for choosing this method over full choice modelling within a modelling software package environment are based on transparency and ease of use.

3.1.3 The proposed study area and development site is broadly described as shown in **Figure 3-2** located towards the end of this Report.

3.1.4 There has been some debate with TfSH about the extent of the proposed modelled study area. Whilst it has been suggested that to truly identify the potential impact of site specific traffic flow onto the individual strategic routes and motorway junctions the study area would have to be extended to consider M27 J7 to J10, this would not be feasible in the timescale available for this study. It is proposed therefore, and has been agreed with the HA, that since the M27 study has assumed that distribution from the North Whiteley development will predominantly be via J9 that our model will assume a similar assumption, but that sensitivity tests will assess the impact upon the wider area motorway junctions if development trip

distribution were by routes other than via J9. If it is found that there will be significant impact on the motorway junctions adjacent to Junction 9 then the operation of these junctions would be assessed in stand-alone junction specific modelling packages. It will be agreed with the HA what constitutes significant impact.

- 3.1.5** In terms of modelled periods it is proposed to model both the AM peak and PM peak hour periods of 08:00 - 09:00 and 17:00 - 18:00 respectively, representing an actual peak and not an average hour within the period. Inter-peak and Saturday peak models are not proposed given the nature of the development proposals. A note will be prepared and issued to the approving authorities setting out why these modelled periods represent the most congested time period.

3.2 Demand modelling

Data and surveys

- 3.2.1** The traffic model will be a vehicle demand model. The first stage in establishing vehicle travel demand for the area in question is to undertake an assessment of existing Origin-Destination data together with any other datasets which are available; such as retail studies, Census Data, count data etc. This will then provide a good understanding of what additional data is required in order to construct the relevant travel demand matrices.
- 3.2.2** Since we are seeking compliance with the M27 Corridor Study modelling, we will need to gain a full understanding of the data which underpins that particular study. This data, combined with other relevant sources should facilitate a more comprehensive understanding of existing travel movement patterns.
- 3.2.3** **Figure 3-3** appended sets out the data-sets which can be purchased from HCC and the proposed additional sites for manual vehicle turning counts which will be used to build the model. TfSH have supplied a list of contact names in the local authorities which could potentially supply journey-time and signal settings. Surveys will be undertaken in line with the guidance set out within DMRB.

Zone system

- 3.2.4** A zone system will be developed for the proposed model which will be at a finer level of detail sufficient to ensure that the main highway links are not straddled by a zone and that the zone system is of sufficient detail to cater for all possible future developments and land uses. Due consideration will be given to establishing a common denominator with the Sub Regional model if deemed appropriate.

Demand matrices and spreadsheet

- 3.2.5** Once survey data is available, the process of vehicle trip matrix creation can proceed. In essence, the origin destination data from surveys and census should be used to establish a base line matrix. Wherever there are 'gaps' within the matrices these will be in-filled by a process of seeding, whereby zero cells within the matrix are populated by small numbers to ensure that matrix estimation can also affect those movements. After the matrix estimation

is completed, the seeding will be removed again. We have been advised that the Census Journey to Work data may be biased and thus merit some further investigation.

3.2.6 Once the transport network has been created, the core matrices will be assigned. After some network adjustments to obtain a more realistic trip distribution (when compared to link count data) the matrix will be 'matrix estimated' to 'control counts'. It is important within this process to ensure that the fundamental nature of the matrix is not altered significantly. Some constraints may need to be placed upon certain movements to achieve this. This could be based upon information gained from retail surveys/location of employment centres/schools etc. Pre- and post- matrix estimation tests will be carried out to ensure that no undue distortion of the matrices has occurred. This will be done with assessments of trip length distribution and similar.

3.2.7 The matrices will be split by time period and also by user classes; namely cars/light vehicles, 'spare' user class¹ and HGV's. Buses will be preloaded within the network assignment.

3.2.8 All of the above should be carried out within the SATURN environment. Alongside the demand matrix production which will be used within the SATURN assignment model, a spreadsheet will be set up which will be used for splitting the matrices into differing trip purposes, namely:

- Person
 - Work (Journey to)
 - Employers' business
 - Education
 - Shopping
 - Personal business/other
- Commercial

3.2.9 It should be noted that data limitation may well restrict the level to which these can be created.

3.2.10 The modes by which these trips will be split are:

- Working at home
- Rail
- Bus
- Car driver
- Car passenger
- Walk

¹ See section 4.2

- Cycle

3.2.11 Within the spreadsheet a mode choice element will be set up to take timetable/fare etc. costs from public transport and highway time skims from the assignment model. This can provide an indication of comparative costs by mode. Based upon the outcome, decisions will be taken on how certain preferred sustainable modes can be made more attractive than car based travel.

3.2.12 Some thought will be given to the total costs of those trips with origins or destinations outside of the study/modelled area. The combined costs may alter the mode choice calculations. Furthermore it will be considered as if vehicle operating costs should or should not be included as part of these calculations. These decisions will be taken as the model is developed.

3.3 Network creation

3.3.1 Some care will be taken that the network created within SATURN complies more with the actual location and alignment of the real life transport network rather than the straight line schematic approach which can be taken in these types of model.

3.3.2 A link-based network will be created and then subsequent junction simulation added in accordance with the AM and PM peak network conditions. Google Earth can be used to obtain a basic understanding of the local highway geometry. This will be supplemented by site visits where more detailed highway layouts and speed restrictions are noted. This will then feed into standardised spreadsheets to establish the saturation flow values etc. to be used within the SATURN coding. At this stage it will be determined if speed-flow curves will be required within the detailed simulated area of the model. The use of 'dummy-nodes' will be avoided.

3.3.3 **Figure 3-4** shows the Journey Time surveys which will be undertaken as part of this study. Further away from the detailed study area we are proposing to use Traffic master journey time data to get an approximation of the regional journey times to/from the detailed study area. The key routes for which we are acquiring data is shown on **Figure 3-5**.

3.3.4 Bus routes would also be coded into the network. Whilst matrices will not be assigned to these, they will act as preloaded traffic as in real life, thus also contributing to the traffic mix on the highway network.

3.3.5 Once a matrix is assigned corresponding to the relevant period, the modelled flow will be checked against a number of independent control/validation counts. The network will then be refined to more closely relate to the count data. Once it is not possible to achieve a better fit by these means, the matrix estimation procedure highlighted in the previous section will be used.

3.4 Assignment modelling

3.4.1 The assignment parameters within SATURN will be set in such a manner as to emulate actual route choice. At the request of the HA, the assignment parameters will consider both

time and distance (PPK/PPM parameters) as set out in WebTAG guidance. The same Value of Time will be used for all trip purposes assigned.

- 3.4.2** As is set out above, there are several iterations necessary between the matrix creation and finalisation of the network before a 'final' assignment is created. Throughout this process it should be checked if the model is sufficiently converging, i.e., is deemed to be mathematically stable, and these findings will be detailed in the final modelling reports.
- 3.4.3** The matrices to be assigned will only have three user classes, these being cars/LGV, 'spare' user class and HGV's.
- 3.4.4** It will be a requirement that the model is validated against observed data within the base year. This will be done in accordance with DMRB criteria both on flow to count comparisons and on journey times.
- 3.4.5** All count data will be converted to PCU's for the purpose of modelling and then the outputs converted back to vehicles where inputs are required for Air Quality and Noise.

4 Methodology – Forecast years

4.1 Overview

- 4.1.1** A number of forecast scenarios need to be assessed by the transport model, in accordance with the DCLG / DfT Guidance on Transport Assessment (March 2007) and the Route Map transport strategy approach proposed by PBA. This will be based upon the modelling framework created for the base year. The assignment of road based traffic will be undertaken in SATURN, whilst demand and choice modelling will be carried out within a spreadsheet environment.
- 4.1.2** The proposed forecast years for informing the approving authorities will be 2016, 2021 and 2026. Assuming the planning application will be registered in 2011, 2016 represents 5 years after the date of registration for assessing the local transport network. 2021 represents 10 years after registration for assessment of the Strategic Road Network (SRN). 2026 represents the end of the WCC Local Development Framework (LDF) period.
- 4.1.3** A number of sensitivity tests will also be undertaken to assess the phasing of appropriate transport measures which might have to be introduced to more effectively manage/mitigate the development impact as the development is built out. Further information is to be provided on this Route Map approach to inform the Transport Assessment Scoping. The modelling assumptions for each build out phase will be agreed with the HA/HCC/TfSH.

4.2 Demand modelling

- 4.2.1** The spreadsheet will be set up in such a manner as to allow easy interpretation of relative costs by mode. This will then allow the user to manually adjust/establish by means of a range of elasticity calculation the relevant mode split (and allow for other effects such as peak spreading). This element will need to be considered for the site specific trip generation as well as the background matrix. From the outset the site specific calculations should allow for different build-out phases to be simulated.
- 4.2.2** For the forecast scenarios, the spreadsheet needs to include additional modes:
- Park and Ride;
 - 'spare' user class;
 - Car sharing.
- 4.2.3** Including a 'spare' user class is a modelling work-around which allows us to represent route usage which might be different to that of the general public. An example of this would be if there would be a restricted access route to the site which only certain user-groups, such as site residents for example, would have permission to use. In order to allow for a scenario such as this to be modelled, a separate 'mode' would have to be created within the model.
- 4.2.4** Growth in forecast demand would be determined by a number of factors. In the first instance, the growth assumptions used within the M27 modelling work would have to be assessed and

adjusted where necessary. This would include consideration of development specific trip generation, background growth in demand, reductions assumed due to an enhanced walk ,cycle network, demand management measures and travel planning and travel behaviour change measures. Furthermore assumptions made in regard to levels of motorway traffic need to be finalised. Agreement needs to be sought as to the final numbers used.

4.3 Network creation

4.3.1 There are three key stages to the network creation which is required for the forecast modelling runs.

4.3.2 In the first instance a future year base network will be created for both modelled time periods. This will incorporate any committed schemes which are to be added to the base year network.

4.3.3 Furthermore, once the proposed development is included within the forecasts a number of traffic management scheme options will be assessed until an optimum solution is attained. It will at this stage be necessary to consult other specific junction modelling packages to establish what this solution may be, and potentially feed back if design may affect coding.

4.3.4 Once the optimum final combination of proposed measures has been arrived at, further tests need to be undertaken for the developer which will seek to advise which schemes need to be constructed at which particular build-out stage.

4.4 Assignment modelling

4.4.1 The same assignment parameters that are employed within the base year should be used to ensure consistent results across all models. Only if for some reason a convergent solution cannot be reached will some parameters need altering.

4.5 Assessing Impacts outside of the Model Area

4.5.1 A combination of the Saturn model and the spreadsheet will be used to understand the likely range of impacts of the development proposals outside of the model area. Depending on the level of impact, further individual junction assessments may be required and this will be agreed with the HA / HCC should the need arise. Key areas which have been identified for potential review during scoping include:

- M27 Junctions 7, 8 and 10;
- Rural routes to the north of the development and in particular the junction of Winchester Rd / Titchfield Lane, Wickham.

4.6 Scenario testing

4.6.1 In order to keep the modelling relatively simple, it has been decided that a number of scenario tests will be undertaken to assess different forecast scenarios, rather than to extend the modelled area for example.

4.6.2 On this basis, the following scenarios are proposed:

- 2010 (year TBC by HCC dependent upon data sources) Validation Base (to include existing / occupied development);
- 2016 Base (existing + extant development);
- 2016 Phase 1 Development (development phasing TBC);
- 2021 Base;
- 2021 Phase 2 Development (development phasing TBC);
- 2026 Base;
- 2026 Full Development of North Whiteley.

4.6.3 A separate note will be issued which will confirm the size/layout associated with each build out phase modelled.

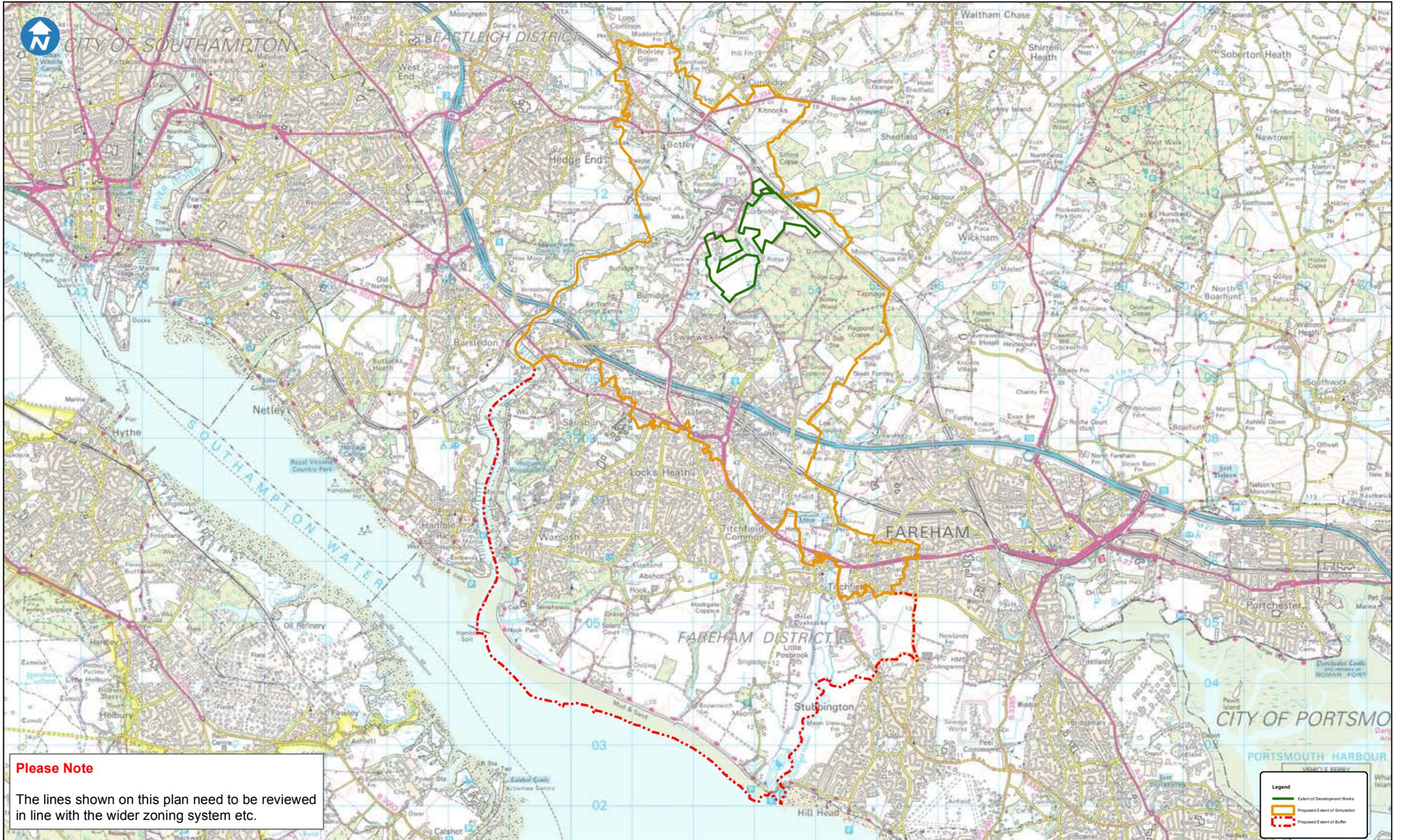
4.6.4 The following lists some of the additional scenario tests which may need to be run through the model:

- Developments are proposed in Eastleigh district and are included within the M27 corridor model. Consideration of the impact of these developments upon the trip distribution of North Whiteley development trips may require a sensitivity test to be set up in which the development trips from our site may use the A3024 more heavily than the A334.
- As already mentioned, different build-out phases need to be modelled to show which proposed measures should be implemented at which phase of construction.

Appendix A - Figures

North Whiteley
Transport Modelling Scope and Methodology Report





Please Note
 The lines shown on this plan need to be reviewed in line with the wider zoning system etc.

Legend	
	Extent of Development Works
	Proposed Extent of Simulation
	Proposed Extent of Buffer

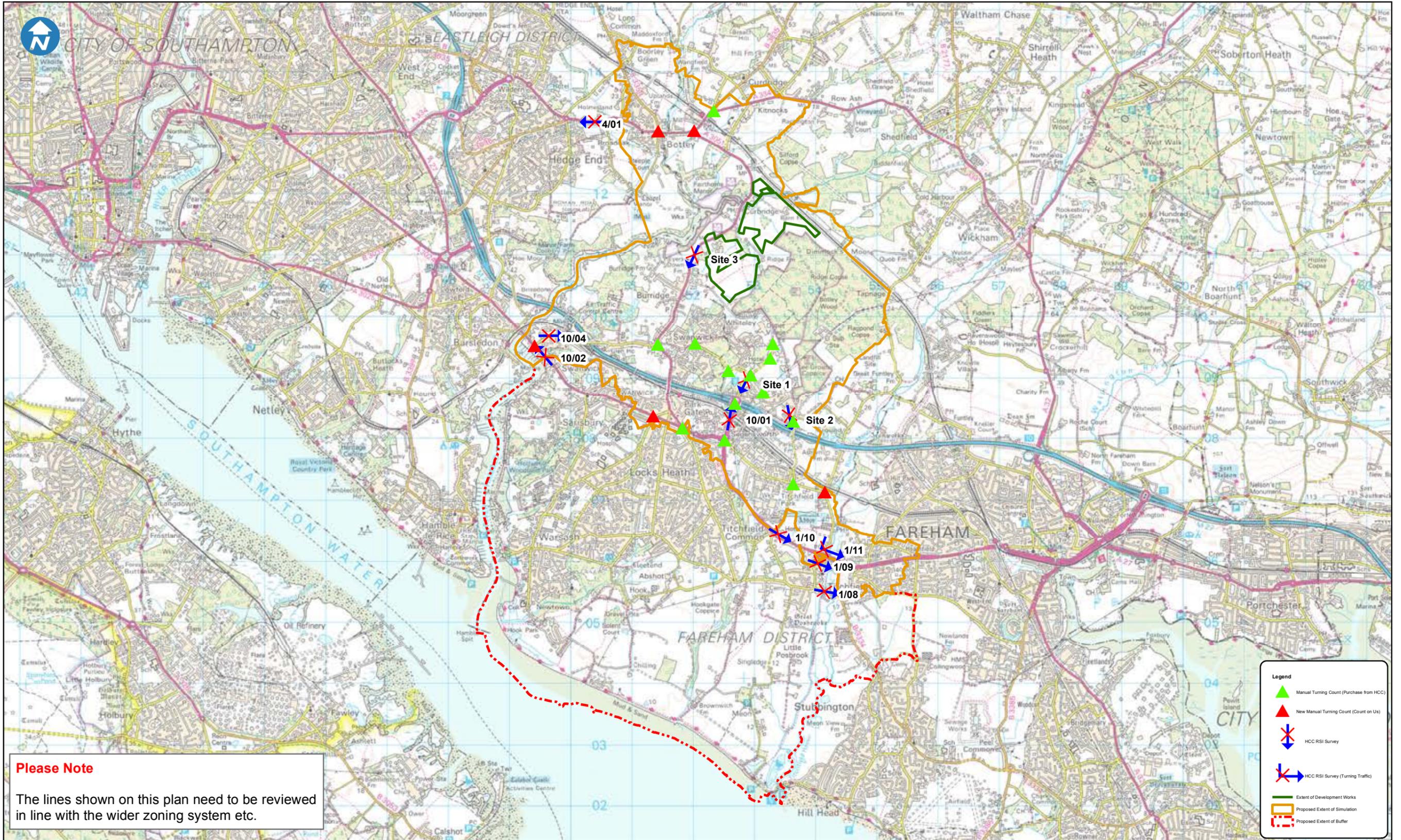
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North Whiteley Development

The proposed study area and development site

Date	August 2010
Scale	Not to Scale
Drawn By	PW
Checked By	RM
Figure Number	

Figure 3.2



Please Note

The lines shown on this plan need to be reviewed in line with the wider zoning system etc.



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North Whiteley Development
Scoping figure showing all count sites
(RSI counts shown as direction of survey)

Date August 2010
Scale Not to Scale
Drawn By PW
Checked By RM
Figure Number

Figure 3.3

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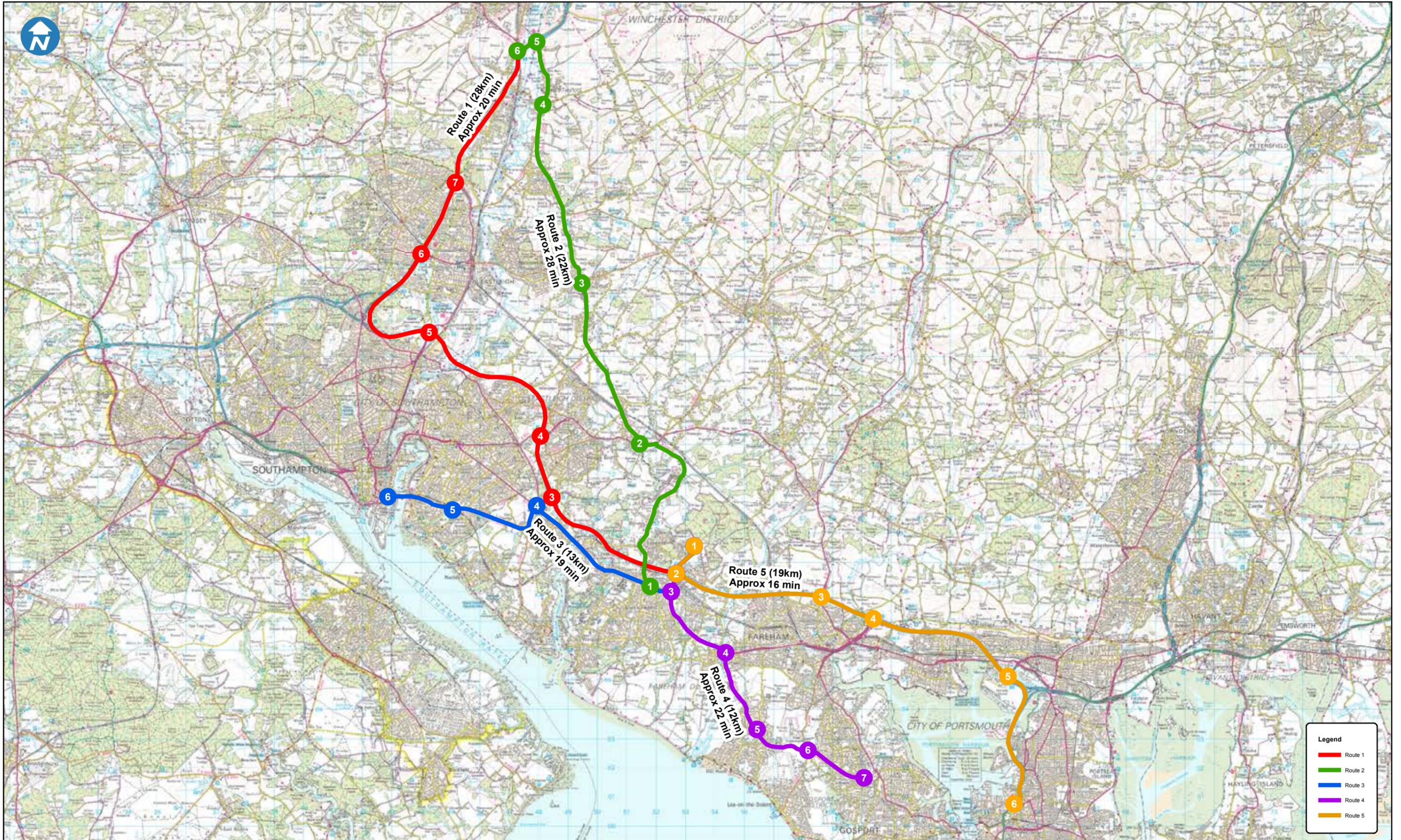
Model validation journey time routes

Date	August 2010
Scale	Not to Scale
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Figure Number	

Figure 3.4

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North Whiteley Development

Strategic Journey Time Routes

Date	August 2010
Scale	Not to Scale
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Checked By	AS
Figure Number	Figure 3.5

Appendix B – Draft Programme

North Whiteley
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Appendix D - Latest Masterplan, Phasing and Scenarios for Assessment