



Protocol for the use of Dorset County Council transport models.

Version	Date	Produced by	Reviewed by	Notes
1	13 August 2012	WS	PDC/NR/MH	
1a	13 September 2012	WS		
2a	6 December 2012	WS		Alterations following legal advice

1. Introduction

The Transportation Modelling Team at Dorset County Council have produced and worked on several traffic models across Dorset.

These models may be of use to individuals or groups in a variety of situations including analysing planning applications, producing Transport Assessments and when master-planning larger sites. Dorset County Council are making these transport models available for use by, or on behalf of, external parties. This has many joint benefits including saving on time and money, avoiding duplication of work and avoiding issues arising when different, conflicting, models exist for the same site. Working with DCC on an existing transport model ensures, as far as possible, that all parties are in agreement regarding the impacts that any given proposal may have.

Dorset County Council's in-house modelling team can also be commissioned to produce entirely new models on behalf of an external party with some of the same benefits outlined above.

This note outlines the transport models currently held by Dorset County Council and the software packages that the modelling team has experience of using. It also clearly identifies any licensing agreements, charges and conditions that would be applied when using the models.

In addition to the standard modelling tools, Dorset County Council can undertake Accession modelling on behalf of developers and has access to 'Dorset DIAMOND', a county wide spreadsheet based traffic model. More details on both are provided later in this document.

Depending on the underlying reason for requiring transport modelling input, the first point of contact with DCC will be with the Transportation Development Management Team (if the request is related to a specific planning proposal) or with the Transport Planning - LDF Team. These Officers will be able to provide guidance on what level of modelling is appropriate and will liaise with the modelling team as appropriate. Contact details are provided in Appendix A.

This protocol will be regularly updated and readers are advised to check on the Dorsetforyou website for the most recent version.

A list of definitions is provided in Appendix B.

2. Transport models held by Dorset County Council

The DCC models identified in this section have been developed over a number of years and have been calibrated and validated to WebTAG / DMRB guidance. Local Model Validation Reports (LMVRs) and any available Technical Reports, Audits and Future Year Modelling Reports for DCC models can be made available for review by developers and their consultants prior to committing to any licence fee agreement.

Table 1 Models available

Model	Software	Initial Developer	Base Model	Auditor	Modelled Years	Model Completion Date
Weymouth Relief Road model (© DCC 2008)	SATURN / TRIPS / DIADEM	DCC	DCC/WSP	PB	2007, 2012, 2016, 2027	Dec 2008
Weymouth Transport Package model (© DCC 2009)	SATURN / TRIPS / DIADEM	DCC/ WSP	Atkins		2008, 2012	Nov 2009
South East Dorset model	SATURN / EMME	Atkins	Atkins (re-base DCC)	AECOM	2008, 2026	July 2009
Wimborne SATURN model (© DCC 2009)	SATURN	DCC	Atkins	n/a	2008, 2016, 2026	Dec 2009
Wimborne Paramics model (© DCC 2010)	Paramics	DCC	DCC	n/a	2008, 2016, 2026	Mar 2010
Christchurch Paramics model (© DCC 2010)	Paramics	DCC	DCC	n/a	2008, 2016, 2026	Dec 2009, model extended Oct 2010
Dorchester model (© DCC 2012)	SATURN	DCC	DCC	n/a	2011, 2016, 2021, 2026	July 2012
Dorset Diamond Spreadsheet Model	Excel	AECOM	DCC	Halcrow	2008 to 2026	Mar 2010, re-validated June 2011

The above models have a base year version and one or more forecast year versions. Details of the main models available under license are provided in more depth in later sections.

Accession modelling is also available through Dorset County Council.

2.1 Weymouth Relief Road Model

2.1.1 This model was initially created in 2001 but has since been further developed and re-based to 2007 upon recommendations made by the Department for Transport. The model was built to obtain funding for the Weymouth Relief Road and associated Park & Ride site.

2.1.2 Modelling Programmes

- SATURN version 10.7.10 Level H– Highway Model
- CUBE5 (TRIPS) version 5.0.2 - Public Transport Model
- Diadem version 3.0 - Demand Model

2.1.3 Time periods modelled

AM peak (0800-0900), Inter peak (average of 1000-1600), PM peak (1700-1800)

Developed by DCC and WSP for the Weymouth Relief Road Major Scheme Business Case

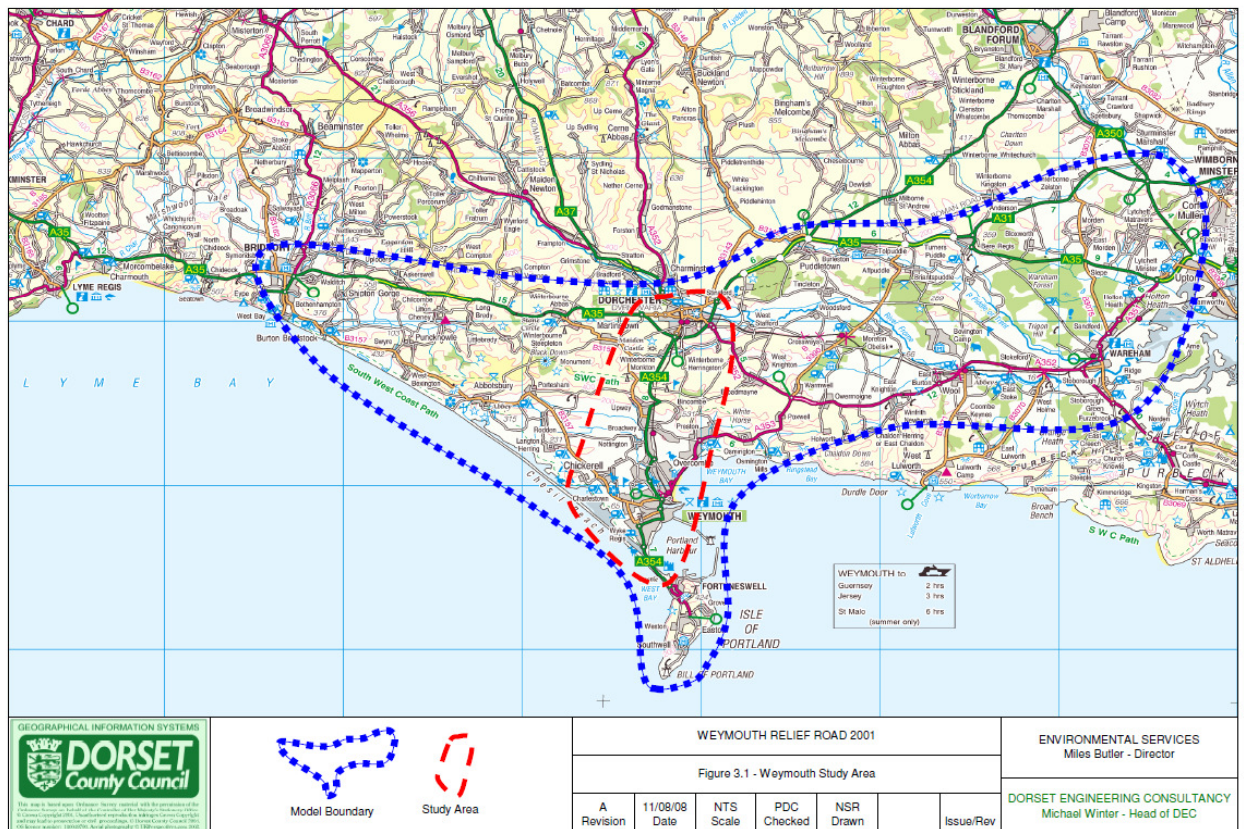


Figure 1 Weymouth Relief Road Study Area and Model Area

2.1.4 Base Matrices

The base matrices for the 2001 Base Model were developed from a number of sources;

- 2001 road side interview (RSI) cordon surveys. Origin, destination and journey purpose data collected,
- 2001 rail and bus travel surveys. Origin, destination and journey purpose data collected,
- Comprehensive set of manual traffic counts at junctions for 13 vehicle types,
- Comprehensive set of automatic traffic counts on strategic links,
- 2001 journey time run data.

2.1.5 Re-base to 2007

This 2001 Base Matrix was then Re-Based to 2007, following advice and approval from the Department for Transport, using the following additional information:

- 2007 rail and bus travel surveys. Origin, destination and journey purpose data collected,
- Comprehensive set of manual traffic counts at junctions for 13 vehicle types,
- Comprehensive set of automatic traffic counts on strategic links,
- 2007 journey time run data using GPS data logger devices.

2.1.6 Network & Zones

The model contains 246 zones, which are representative of large external zones to small areas within the town centre area of the model. 10 of these zones are 'dummy zones' and have been included to represent potential development sites in the future year models. The highway network has been coded utilising Ordnance Survey information, local knowledge and specific site visits and is consistent between SATURN and TRIPS.

2.1.7 Modelled Years

- Base Year – 2007
- Forecast Year – 2012, 2016 & 2027 Central Growth

2.1.8 Reports

- Existing Data Report ~ [DC2372_42 Rev C]
- Local Model Validation Report – Highways ~ [Joint WSP & DCC Report]
- Local Model Validation Report – Public Transport ~ [DC2372_44 Rev B]
- Forecast Report ~ [Joint WSP & DCC Report]

The model meets DMRB criteria for validation.

2.2 Weymouth Transport Package Model

2.2.1 This model was based on the Weymouth Relief Road Model and further developed by Atkins which included refinement of detail in the town centre area. The model was built to attain funding for large scale improvements in and around Weymouth Town Centre to improve public transport journey times in the area. The extent of the model is the same as that of the Weymouth Relief Road Model.

Modelling Programmes

- SATURN version 10.7.10 Level H – Highway Model
- CUBE5 (TRIPS) version 5.0.2 - Public Transport Model
- Diadem version 3.0 - Demand Model

Time Periods Modelled

- AM peak (0800-0900), Inter peak (average of 1000-1600), PM peak (1700-1800)

2.2.2 Base Matrix Development

Weymouth Relief Road Model base matrices were used as the base, with infilling undertaken within the Town Centre area.

2.2.3 Network & Zones

Weymouth Relief Road Model base networks were used as the base, with some additional detail within the Town Centre area to represent finer Town Centre zoning and proposed junction improvements on the Bus Corridor. The number of model zones was increased from 246 to 256, to take account of the greater detail.

2.2.4 Modelled Years

- Base Year – 2007
- Forecast Year – 2012 and 2027

2.2.5 Reports

- Model Convergence Technical Note ~ [Atkins Report]
- Local Model Validation Report – Highways Traffic ~ [Atkins Report]
- Local Model Validation Report – Passenger Transport ~ [Atkins Report]
- Forecast Report ~ [Atkins Report]

2.4 South East Dorset Multi Modal Transport Study Model

2.4.1 This model covers the areas of Bournemouth, Poole, Christchurch and Ferndown. The model was built by Atkins on behalf of a partnership group led by the Borough of Poole Council, and including Bournemouth Borough Council, Dorset County Council, the Highways Agency, the Government Office for the South West, the South West Regional Assembly and the South West Regional Development Agency.

The Model covers both highway and public transport trips by way of SATURN for highway trips and EMME for public transport. EMME was also used to undertake demand modelling calculations.

2.4.2 Modelling Programmes

- SATURN version 10.9.17 Level L – Highway Model
- EMME2 – Public Transport Model
- EMME2 – Demand Model

2.4.3 Time Periods Modelled

- Highways Model - SATURN
AM Peak (0800-0900), Inter Peak (average hour of 1000-1600), PM Peak (1700-1800)
- Public Transport Model - EMME
AM Period (0700-1000), Inter Peak Period (1000-1600), PM Period (1600-1900)
- Demand Model - EMME
AM Period (0700-1000), Inter Peak Period (1000-1600), PM Period (1600-1900), Off Peak Period (1900-0700)



Figure 2 South East Dorset Multi Modal Transport Study Area

2.4.4 Base Matrix Development

The prior matrices for the 2008 Base Model were developed from a number of sources:

- 2008 road side interview (RSI) cordon surveys. Origin, destination and journey purpose data collected,
- 2008 automatic number plate recognition (ANPR) surveys,
- 2008 rail and bus travel surveys. Origin, destination and journey purpose data collected,
- 2008 comprehensive set of manual traffic counts at junctions for 13 vehicle types,
- 2008 comprehensive set of automatic traffic counts on strategic links,
- 2008/09 journey time run data.

2.4.5 Network and Zones

The model contains 527 zones, which are representative of large external zones to small areas within the town centre areas of the model. The highway network was coded utilising Ordnance Survey information, local knowledge and specific site visits.

2.4.6 Modelled Years

- Base Year – 2008
- Forecast Year – 2026

2.4.7 Reports

- SEDMMTS Data Report ~ [Atkins Report]
- SEDMMTS Demand Model Development Report ~ [Atkins Report]
- SEDMMTS Local Model Validation Report – Public Transport ~ [Atkins Report]
- SEDMMTS Forecast Report ~ [Atkins Report]

The model meets DMRB criteria for validation.

2.4.8 Use of the South East Dorset Model is covered by its own protocol agreement. (See Appendix D)

2.5 Wimborne SATURN Model

2.5.1 This model was based on the South East Dorset Model and was created to provide improved traffic detail in the Wimborne area. It is a highway only model containing vehicle demand and fixed bus flows.

2.5.2 Modelling Programmes

- SATURN version 10.8.22 Level H – Highway Model

2.5.3 Time Periods Modelled

- AM Peak (0800-0900), Inter Peak (average hour of 1000-1600), PM Peak (1700-1800)

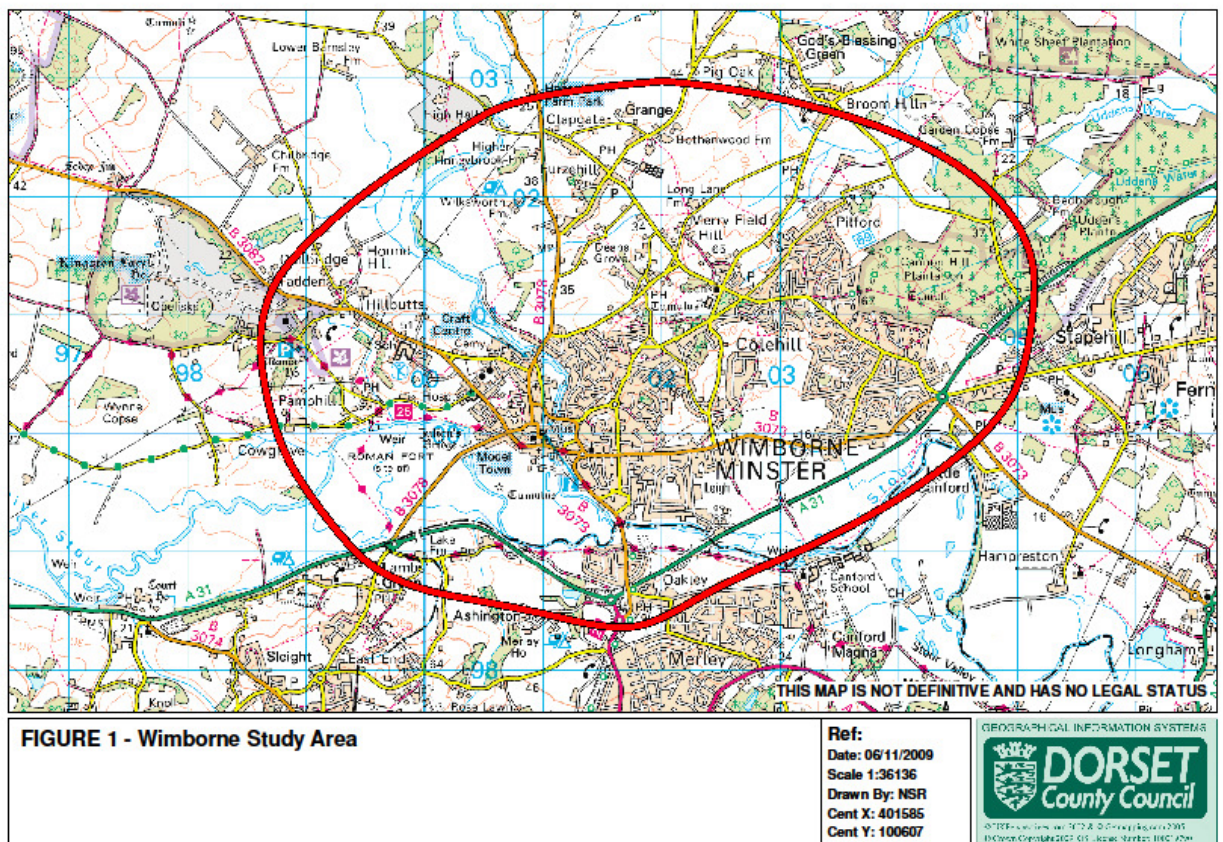


Figure 3 Wimborne SATURN Model Study Area

2.5.4 Base Matrix Development

South East Dorset Multi Modal Transport Study matrices were used as a base. The original RSI data was re-coded into finer zones within the Town Centre Area and reinforced with the following additional data;

- 2009 road side interview (RSI) cordon surveys. Origin, destination and journey purpose data collected,
- 2009 comprehensive set of manual traffic counts at junctions for 13 vehicle types,
- 2009 comprehensive set of automatic traffic counts on strategic links,
- 2009 car park surveys. Origin, destination and journey purpose data collected,
- 2009 journey time run data using GPS data logger devices,
- 2009 video driving surveys.

2.5.5 Network and Zones

The model contains 100 zones, which are representative of large external zones to small areas within the town centre area of the model. Two of these zones are 'dummy zones' and have been included to represent potential development sites in the future year models. The highway network has been coded utilising Ordnance Survey information, local knowledge and specific site visits.

2.5.6 Modelled Years

- Base Year – 2008
- Forecast Year – 2016 & 2026 Central Growth

2.5.7 Reports

- Report of Survey ~ [DC5182_J002_01Rev0]
- Local Model Validation Report ~ [DC5182_J003_01Rev0]
- Forecast Report ~ [DC5182_J004_01RevA]

The model meets DMRB criteria for validation.

2.6 Wimborne Paramics Model

2.6.1 This model was based on a cordon of the Wimborne SATURN Model. It is not a multi-modal model but covers the highway trips of the Wimborne SATURN Model and fixed bus flows.

2.6.2 Modelling Programmes

- Paramics version 2010.0

2.6.3 Time periods modelled

- AM Period (0700-1000), PM Period (1600-1900)

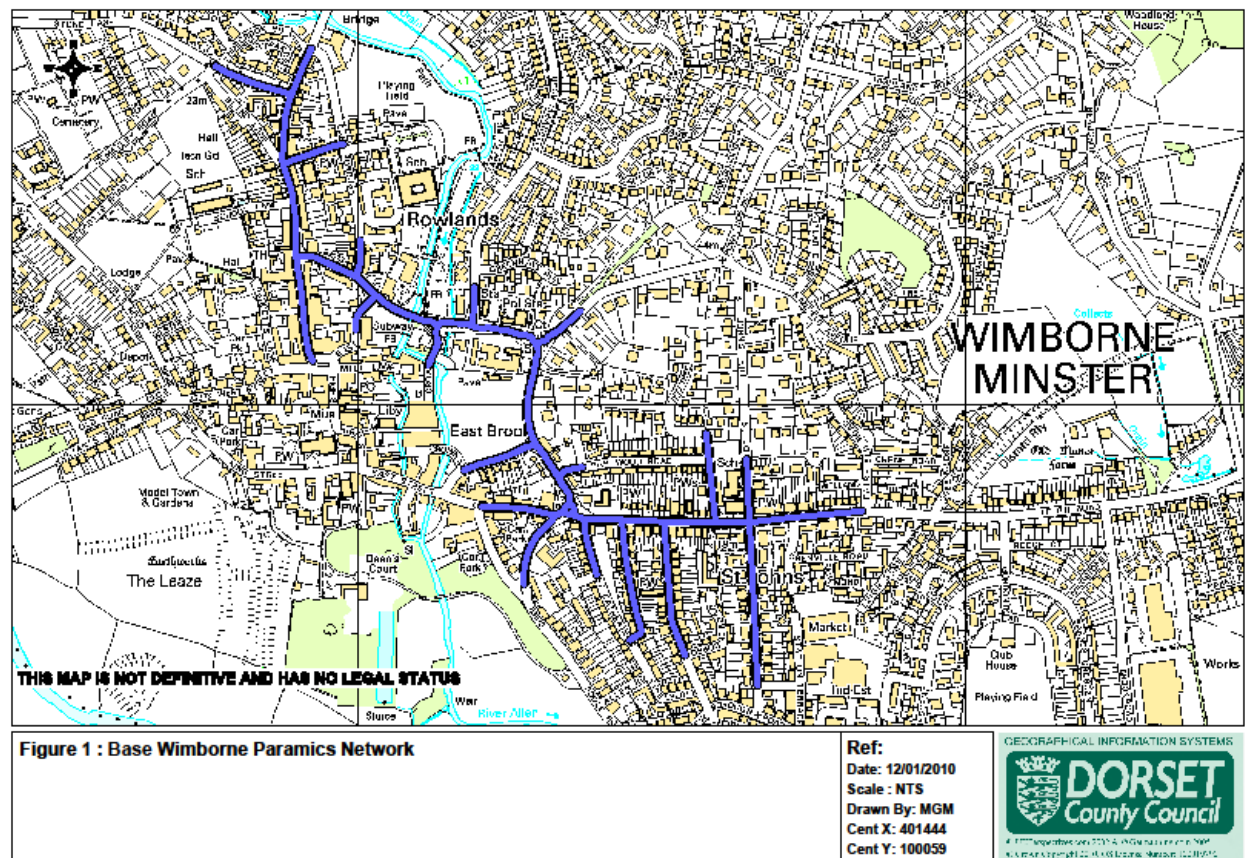


Figure 4 Wimborne Paramics Model Study Area

2.6.4 Base Matrix Development

A cordon of the Wimborne SATURN Model matrices was used as a base. This was then adjusted to reflect observed traffic count information at a number of key junctions within the model. The following additional data, collected in 2009, was used to create the base model.

- Comprehensive set of manual traffic counts at junctions for 13 vehicle types,
- Comprehensive set of automatic traffic counts on strategic links,
- Journey time run data using GPS data logger devices,
- Video surveys of driven journey time routes.

2.6.5 Network and Zones

The model contains 20 zones, which are representative of small areas within the town centre area of the model. The highway network has been coded utilising Ordnance Survey information, local knowledge and specific site visits.

2.6.6 Modelled Years

- Base Year – 2008
- Forecast Year – 2016 & 2026 Central Growth

2.6.7 Reports

- Report of Survey ~ [DC5182_J002_01Rev0]
- Local Model Validation Report ~ [DC5182_J003_02RevB]
- Forecast Report ~ [DC5182_J004_02RevA]

The model meets DMRB criteria for validation.

2.7 Christchurch Paramics Model

2.7.1 This model originally covered the Christchurch Town Centre area, but was extended to include Somerford Roundabout and Roeshot Hill in 2010. Although additional data was collected in 2010 for this extension, little difference in traffic flows from 2009 to 2010 were noted and the base year of 2009 was maintained. It is not a multi-modal model but covers highway trips with fixed bus flows.

2.7.2 Modelling Programmes

- Paramics version 2010.0

2.7.3 Time periods modelled

- AM Period (0700-0930), PM Period (1600-1830)

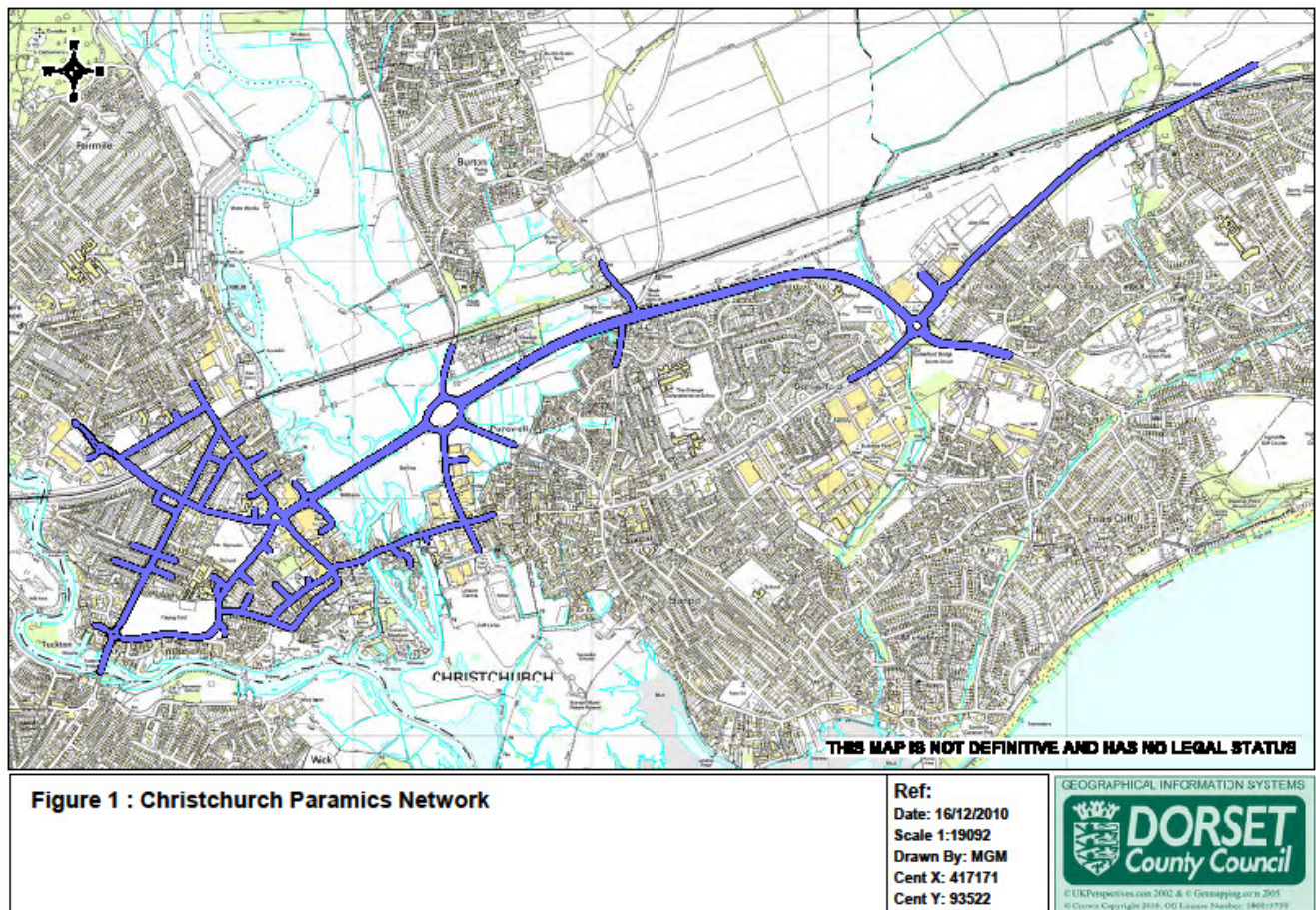


Figure 5 Christchurch Paramics Model Study Area

2.7.4 Base Matrix Development

The Christchurch Paramics Model matrices were based upon origin and destination surveys undertaken by recording registration numbers of all vehicles entering and exiting the model area and internal zones. Additional information used to create the base model consisted of the following data,

- 2009 & 2010 comprehensive set of manual traffic counts at junctions for 13 vehicle types,
- 2009 & 2010 comprehensive set of automatic traffic counts on strategic links,
- 2009 & 2010 journey time run data using GPS data logger devices,
- 2009 & 2010 video surveys of driven journey time routes,
- 2010 queue surveys.

2.7.5 Network and Zones

The model contains 40 zones, which are representative of external zones and small areas within the town centre area of the model. Five of these zones are 'dummy zones' and have been included to represent potential development sites in the future year models. The highway network has been coded utilising Ordnance Survey information, local knowledge and specific site visits.

2.7.6 Modelled Years

- Base Year – 2009
- Forecast Year – 2016 & 2026 Central Growth

2.7.7 Reports

- Inception Report ~ [DC5181_J001_01Rev0]
- Report of Survey ~ [DC5181_J001_02Rev0]
- Local Model Validation Report ~ [DC5181_J002_01Rev0]
- Model Extension Inception Report ~ [DC5181_J003_01Rev0]
- Model Extension Report of Survey ~ [DC5181_J003_02Rev0]
- Model Extension Local Model Validation Report ~ [DC5181_J003_03Rev0]
- Model Extension Forecast Report ~ [DC5181_J004_01Rev0]
- Model Extension Forecast Report (Supplement 2026) ~ [DC5181_J005_01Rev0]

The model meets DMRB criteria for validation.

2.8 Dorchester Transport and Environment Model

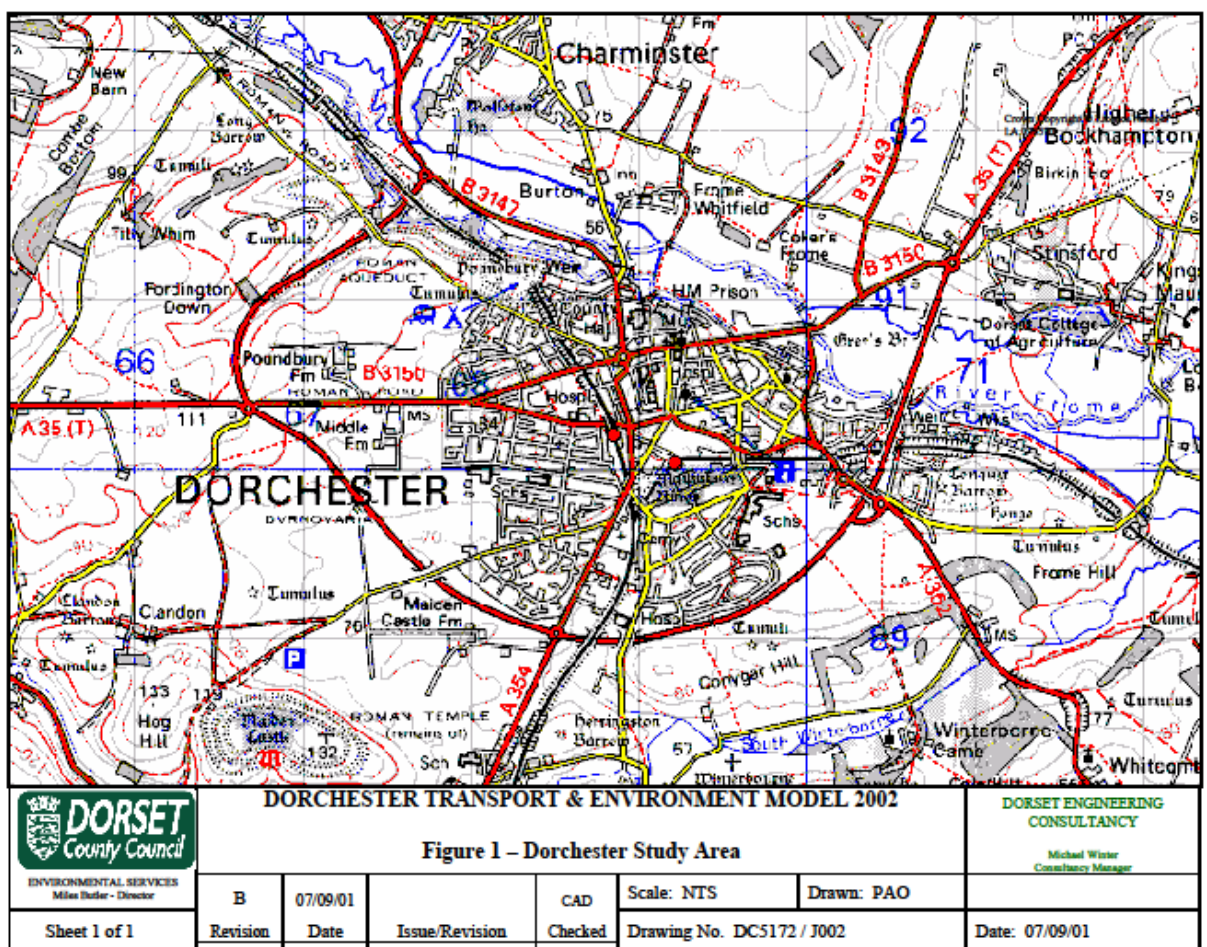
2.8.1 This model covers the Dorchester area and was built to assess development proposals and highway schemes within Dorchester. It is a Highways only model with fixed bus flows.

2.8.2 Modelling Programmes

- SATURN version 10.9.24 Level L – Highway Model

2.8.3 Time periods modelled

- AM Peak (0800-0900), Inter Peak (average hour of 0930-1630), PM Peak (1700-1800)



Dorset Engineering Consultancy
 DC5172_03 Figure 1- DorchStudy.DOC

DC 5172/J002
 11/05/2006

Figure 6 Dorchester Transport and Environment Model Study Area

2.8.4 Base Matrix Development

The prior matrices for the 2011 Base Model were developed from a number of sources:

- 2001 & 2002 road side interview (RSI) cordon surveys. Origin, destination and journey purpose data collected,
- 2002 registration matching surveys,
- 2002 rail and bus travel surveys. Origin, destination and journey purpose data collected,
- 2002 town centre pedestrian interviews and counts,
- 2011 comprehensive set of manual traffic counts at junctions for 13 vehicle types,
- 2011 comprehensive set of automatic traffic counts on strategic links,
- 2011 journey time run data.

2.8.5 Network and Zones

The model contains 200 zones, which are representative of external zones and small areas within the town centre area of the model. The highway network has been coded utilising Ordnance Survey information, local knowledge and specific site visits.

2.8.6 Modelled Years

- Base Year – 2011
- Forecast Year – 2016, 2021 & 2026 Central Growth

2.8.7 Reports

- Dorchester Transport and Environment Plan – SATURN Model Update - Report of Survey ~ [DC5186_J003_01_Rev0]
- Dorchester Transport and Environment Plan – SATURN Model Update - Local Model Validation Report ~ [DC5186_J003_02_Rev0]
- Dorchester Transport and Environment Plan – SATURN Model Update - Forecast Report ~ [DC5186_J004_01_Rev0]

The model meets DMRB criteria for validation.

2.9 Dorset Diamond

- 2.9.1 Dorset DIAMOND was developed for Dorset County Council to provide a tool that undertakes an initial assessment of a number of development growth scenarios up until the year 2026. It enables Dorset County Council to determine where the impacts of additional trips are likely to be greatest and therefore which areas may require further assessment using more detailed and localised methods. The model provides a tool that can quickly assess multiple scenarios at the County level as well as assessing the traffic impact pattern of individual development sites.
- 2.9.2 DIAMOND was initially developed for the Highways Agency to allow assessment of the impact of draft RSS related development trips on the Strategic Road Network (SRN) and supporting local network. A secondary purpose was to assist in engaging with Local Authorities regarding the impact of proposed growth on their local network. This evolved into a more sophisticated model for the South West, with greater zone and network detail than the regional Highways Agency model, but containing the same base 'engine'.
- 2.9.3 Dorset DIAMOND uses MS Excel software, combining traditional modelling techniques with a bespoke solution. The main premise of the model is that base year stress is calculated from observed traffic count information, providing a 2008 base year, removing the need for this to be modelled from known trip distributions. Proposed development trips are then added on top of the base network flows (adjusted to allow for background traffic growth) using the algorithms programmed within Excel. The distribution and assignment of the additional development trips are modelled using recognised techniques (e.g. Frank Wolfe algorithm) that consider the effects of congestion on driver route choice.
- 2.9.4 The average runtime for Dorset DIAMOND is under ten minutes which is significant benefit over traditional models that have longer run-times and associated costs. The resultant output displays a thematic map showing network flow and stress levels. There are also schematic maps that can be used to view and quantify stress on the network.
- 2.9.5 The model can be used to review the impact of either a single development or a series of development scenarios within an area to determine their combined impact. This can include assessing the impact of changing trip mode share. Two growth option scenarios can be run. The first is a fixed RSS scenario that has been pre-run to determine the highway flows. The second is background economic growth that accounts for the natural increase in highway traffic due to an increase in wealth and car ownership (obtained from TEMPRO).
- 2.9.6 Dorset Diamond can only be operated in house by DCC on behalf of an external client and cannot be released externally.

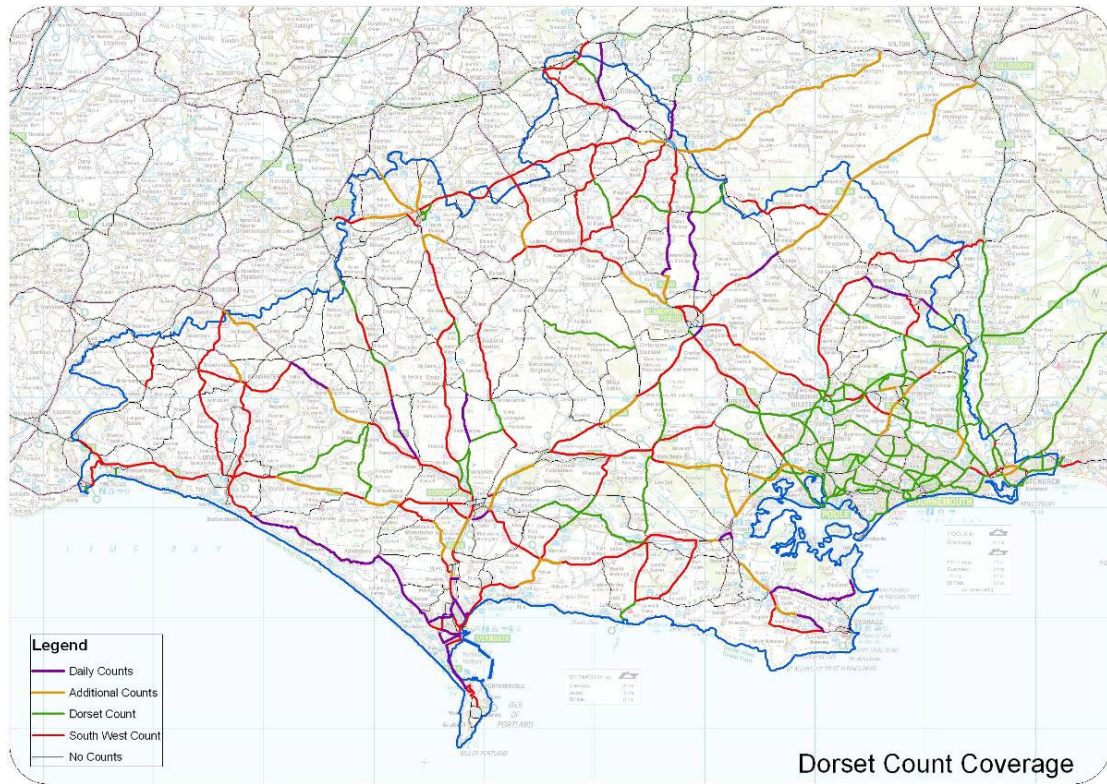


Figure 7 Indication of Dorset DIAMOND modelled network

2.10 Accession

2.10.1 Accession was designed by the UK Department for Transport and developed by MVA and Citilabs. Accession is the first software package to fully address all aspects of travel time and cost mapping using digital road networks, public transport timetable data and flexible, on-demand transport. Endorsed by the UK government, it is able to deliver key performance indicators through the analysis of geo-demographic data using travel time, cost or distance. Accession was designed by the UK Department for Transport and developed by MVA and Citilabs using the latest technology.

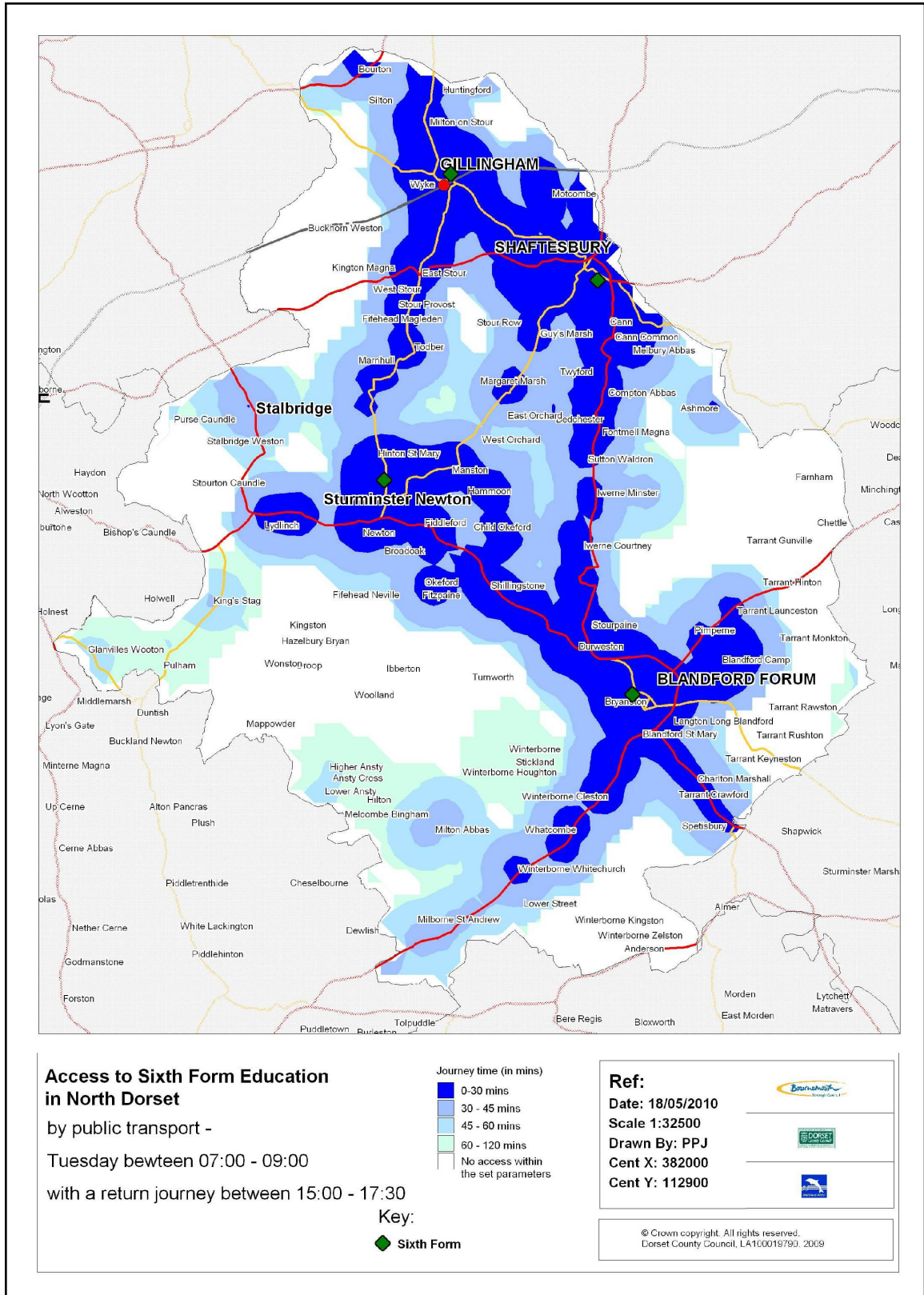
2.10.2 The software has been used by Dorset County Council to measure a range of transport and accessibility indicators as well as undertaking scenario testing in relation to development impacts.

2.10.3 The Dorset County Council Accession Model can be applied to provide multi-modal accessibility assessments for individual developments. Examples of information which can be gathered include:

- Multimodal time based assessments for accessing key health, employment, leisure, education, retail and transport (HELERT) destinations in Dorset. Journey times by walk/cycle, passenger transport and the car are calculated.
- Assess pedestrian and cyclist access to local destinations.
- Measure the impact of future congestion 'scenarios' on accessibility by bus services and the car.
- Assess accessibility for future year scenarios which take account of the phasing of developments.
- Assess the population which can access direct and indirect passenger transport services by walking.
- Test the accessibility benefits of proposed improvements to infrastructure and passenger transport services.

2.10.4 Contact information for advice and a quotation for Dorset County Council work on Accession can be found in Appendix A.

Fig. 8 Example output from Dorset Accession



3. MODEL ACCESS LICENCE AGREEMENT AND FEES

- 3.1 This section sets out the terms and conditions of model access, schedule of charges, user rights and ownership rights relating to DCC models. All fees quoted in this section are exclusive of VAT.
- 3.2 Only where expressly identified and agreed beforehand will DCC incur any costs associated with any item identified in this protocol. All other charges will be passed onto the third party in question.
- 3.3 Fees for the use of Dorset Accession will be charged at an officer day rate of £500 and will be payable to the Consultation and Research Group, Dorset County Council.
- 3.4 Use of the South East Dorset Multi Modal Transport Model is covered by a separate protocol of use provided in Appendix D.
- 3.5 The Fee Schedule for the remaining models has been designed to ensure that Dorset County Council's models are continually maintained, upgraded and re-based when necessary to ensure that adequate model provision for the assessment of development proposals is preserved. In this regard there will be an access fee of £750 for use of any of Dorset County Council's models.

Model	Software	Access Fee
Weymouth Relief Road Model (© DCC 2008)	SATURN / TRIPS / DIADEM	£750
Weymouth Transport Package Model (© DCC 2009)	SATURN / TRIPS / DIADEM	£750
South East Dorset	SATURN / EMME	Separate protocol in appendix D
Wimborne SATURN Model (© DCC 2009)	SATURN	£750
Wimborne Paramics Model (© DCC 2010)	Paramics	£750
Christchurch Paramics Model (© DCC 2010)	Paramics	£750
Dorchester Model (© DCC 2012)	SATURN	£750
Dorset Diamond Spreadsheet Model	Excel	£350

Use of a model by a third party.

- 3.6 DCC will only release full versions of models to third parties. If a third party wishes to cordon a model they may do so after they have received the full version.
- 3.7 Data for individual junctions within a model will be provided at a cost of £100 per junction up to a maximum of 50 junctions.

- 3.8 Full SATURN .ufs model assignment files will be provided at a cost of £5000 for the first file and £2000 for any subsequent files.
- 3.9 Prior to a model being provided to a third party for their use the protocol form and Agreement provided in Appendix C shall be completed and agreed by both parties. Use of the model will be restricted only to the project(s) identified on the protocol form and agreement unless formally agreed in writing with Dorset County Council.
- 3.10 Upon completion of the project the third party will provide the following information to Dorset County Council;
- A full written description of any changes made to the model
 - A description of the scenarios and tests that were analysed using the model
 - Copies of all model computer files.
- 3.11 The resultant model and all subsequent variations will remain the property of Dorset County Council and upon completion of the designated project the third party will delete all relevant files.

Modelling undertaken on behalf of a third party by Dorset County Council.

- 3.12 In addition to the model access fee identified in section 3.5, any work undertaken by DCC will be charged at an officer day rate of £500 of which 25% will be used to maintain the transport models held by DCC.
- 3.13 With the exception of Accession, a Modelling Protocol Agreement should be completed and signed by all parties involved prior to the commencement of any modelling work. DCC may decline to undertake modelling on behalf of a third party if it feels that the model is not suitable to analyse the proposed development or scenario.
- 3.14 Work undertaken by Dorset County Council, using any of the models identified in section 3 with the exception of SEDMMTS, on behalf of a third party will be charged at £500/officer day or pro-rata hourly rate. (TIMESCALES AND FEES WILL BE AGREED PRIOR TO SIGNING THE PROTOCOL FORM).
- 3.16 In some instances additional data collection may be required to inform the modelling process. DCC will quote separately for this work.
- 3.17 Dorset County Council will retain ownership rights and intellectual property rights on all modelling outputs developed in relation to third party projects.
- 3.18 Where Dorset County Council undertake modelling work for a third party the following information will typically be required;
- Site location plan and layout plan
 - Development description and planned land uses by number of units/floor area as appropriate
 - Timescales for development including any phasing
 - Proposed access locations and junction layouts if known
 - Proposed parking levels

- Any other transport schemes proposed including bus, rail, cycle and pedestrian.
 - Transport and traffic demand data for the peak hours, unless being provided by Dorset County Council. (This will typically be 08:00 to 09:00 and 17:00 to 18:00 but may vary with individual proposals depending on land use and location).
 - Trip distribution assumptions
 - Trip rate reduction attributable to smarter choices.
- 3.19 DCC require an Invoice Reference Number or Order Number from the 3rd party and a name and address to which the invoice should be sent, prior to the commencement of the work.
- 3.20 DCC will make all reasonable endeavours to provide the agreed deliverables within the agreed timescales, on the condition that they have been provided with all the necessary information to carry out the agreed tasks. DCC will not be liable for any costs, charges or losses sustained or incurred by the third party that arise directly or indirectly from a delay in providing the agreed deliverables in the agreed timescales.
- 3.21 If DCC is prevented or delayed by any act of omission of the 3rd party, its agents, subcontractors or consultants, DCC will not be liable for any costs, charges or losses sustained or incurred by the 3rd party that arise.
- 3.22 It is important to note that carrying out this work and producing the final report on behalf of the client in no way implies Dorset County Council endorsement or otherwise for any scheme or development. Nor does it imply endorsement or otherwise for the transportation network and/or land use assumptions supplied by the client as inputs into any accessibility modelling work. In cases where modelling is being undertaken in association with a development proposal agreement to schemes and actions modelled will be made by the relevant Transportation Development Management Engineer.

APPENDIX A DORSET COUNTY COUNCIL CONTACTS

Transportation Development Management Team

Steve Savage – Transport Development Liaison Manager
S.K.Savage@dorsetcc.gov.uk
01305 224157

Local Transport Plan – LDF Team

Kate Tunks – Principal Transport Planner
K.Tunks@dorsetcc.gov.uk
01305 228534

Transportation Modelling Team

Phil Channer – Principal Engineer
P.D.Channer@dorsetcc.gov.uk
01305 225376

Accession

Peter Jackson – Senior Consultation and Research Officer
P.P.Jackson@dorsetcc.gov.uk
01305 224614

All of the above contacts are based at;

Dorset County Council
Environment Directorate
County Hall
Colliton Park
Dorchester
Dorset
DT1 1XJ

Appendix B DEFINITIONS

DIADEM - Dynamic integrated assignment and demand modelling

DIADEM is a software tool maintained and supported by Atkins Limited on behalf of the Department for Transport.

DMRB – Design Manual for Roads and Bridges.

It provides a comprehensive manual system which accommodates, within a set of loose-leaf volumes, current Standards, Advice Notes and other published documents relating to Trunk Road Works.

It may also be applicable in part to other roads with similar characteristics. Where it is used for local road schemes, it is for the local highway authority (local roads authority in Scotland and Northern Ireland) to decide on the extent to which the documents in the manual are appropriate in any particular situation.

LMVR – Local Model Validation Report

A report produced for most models which generally includes; specification of the modelled area, zoning system and networks; a description of data required; a description of the matrix, network building process and validation; the calibration process used; any validation procedures used.

Matrix

Matrix (Trip Matrix)

The number of people or trips 'supplied' to a model are held in a matrix or number of matrices. These are essentially a two-dimensional arrays of cells where rows and columns represent each of the model zones. Each of the matrix cells contains the trips associated with travel between the row (origin) and column (destination). An example of a simple matrix is show within the table below:

	Destinations			
Origins	1	2	3
1	X_{11}	X_{12}	X_{13}	
2	X_{21}	X_{22}	X_{23}	
3	X_{31}	X_{32}	X_{33}	
....				

It can be seen from the table above that the traffic flow associated with the trip from zone 2 to zone 3 is represented by cell X_{23} .

Network

This is the representation of the physical highway or other transport network within the software package.

Paramics

Paramics is a micro-simulation traffic flow modelling system for the analysis and design of urban and highway networks. It presents its output as a real-time visual display for traffic management and road network design. S-Paramics represents the actions and inter-actions of individual vehicles as they travel through a road network. It models the detailed physical road layout, and includes features such as bus operations, traffic signal settings, driver behavioural characteristics and vehicle kinematics.

SATURN

SATURN (Simulation and Assignment of Traffic to Urban Road Networks) is a suite of network analysis programs developed at the Institute for Transport Studies, University of Leeds and distributed by Atkins Limited. It has six basic functions; as a combined traffic simulation and assignment model for the analysis schemes from relatively localised networks (typically of the order of 100 to 200 nodes) through to major infrastructure improvements; as a “conventional” traffic assignment model for the analysis of much larger networks; as a simulation model of individual junctions; as a network editor, data base and analysis system; as a matrix manipulation package for the production of, e.g., trip matrices; as a trip matrix demand model covering the basic elements of trip distribution, modal split etc.

TRIPS

An element of CUBE VOYAGER modelling software

WebTAG

WebTAG is the Department for Transport’s website for guidance on the conduct of transport studies. The guidance includes or provides links to advice on how to; set objectives and identify problems; develop potential solutions; create a transport model for the appraisal of the alternative solutions; how to conduct an appraisal which meets the Department’s requirements.

The website also includes advice on the modelling and appraisal appropriate for major highway and public transport schemes.

Zone

A model zone is a geographical area based on features such as land use, network access and demography. Models usually contain small 'finer' zones in the immediate area of interest. These are often surrounded by larger 'coarser' zones. It is common practice to base the zones on defined census areas, with larger zones being made-up of multiple census zones. The number and location of zones defines the location of the 'Origins' and 'Destinations' of the modelled trips.

APPENDIX C
DORSET TRANSPORT MODEL PROTOCOL FORM
(For South East Dorset Multi-Modal Transport Model protocol see Appendix C)

Section One - Party Identification and Sign-up			
Core Modelling Team	Organisation	Name	Signature
Project Manager	DCC	Phil Channer	
Third Party	Organisation	Name	Signature
Government Body / Stakeholder(s)			
Private Developer(s)			
Private Consultant(s)			
Other(s)			
Section Two - Contact Details			
Organisation	Named Contact	Phone Number	Email Address
DCC	Phil Channer	01305 225376	P.D.Channer@dorsetcc.gov.uk
Section Three – Model(s) or sections of Model(s) Covered by this Protocol			
Model	Type and Version Number / Reference	Scope / Coverage / Time Periods	
Section Four - Model User Rights, Third Party Use of Model <i>(Fill in where third party is using a model or part of a model supplied by DCC)</i>			
Provide a description of the Project(s) to which use of the Model is to be restricted.			
Provide a description of the model or part of model to be supplied by DCC			

Details of any information provided that is to be considered confidential.		
Section Five – Agreed Work and Deliverables (Fill in where DCC is undertaking modelling work on behalf of a third party)		
Model Type	Year	Version Number / Reference
Base Model		
Future Model		
Details of Agreed Work and Deliverables		
Model Runs		
Model Extensions / Updates		
Required outputs		
Section Six – Timescales (Fill in where DCC is undertaking modelling work on behalf of a third party)		
Details of Work		Agreed Timescales for Completion and Delivery
Section Seven – Agreement of fees in accordance with protocol		
VAT		
Invoice Ref. No. or Order No.		

- 2.5 The Licensee recognises the Council's title to the Copyrighted Material and shall not claim any right, title or interest in the Copyrighted Material or any part of it.
- 2.6 The Licensee shall not assign, mortgage, charge or otherwise deal with the benefit of this Agreement (whether wholly or in part) nor grant any sub-licence, without the prior written consent of the Council.

3. Term of licence

- 3.1 This Licence shall begin on receipt of the Copyrighted Material by the Licensee and, subject to earlier termination in accordance with the provisions of this Agreement, shall remain in effect until the completion of the Project, when it shall automatically terminate.

4. Confidentiality

- 4.1 The terms and existence of this Agreement are confidential to the parties.
- 4.2 Each party agrees to maintain secret and confidential all confidential information that it may acquire from the other in the course of this Agreement, and to use the same exclusively for the purposes of this Agreement, and to disclose the same only to those of its employees, officers, agents and representatives to whom and to the extent that such disclosure is reasonably necessary for the purposes of this Agreement (and which employees, officers, agents and representatives shall be made aware of and required to acknowledge these confidentiality arrangements in writing).

5. Fees

- 5.1 The payments to be made to the Council for use of the Copyrighted Material are set out in the 'Protocol for the use of Dorset County Council transport models' provided to the Licensee.
- 5.2 Prices quoted are exclusive of VAT.
- 5.3 Payment shall be made within 30 days of receipt of a correct invoice.

6. Warranties and indemnities

- 6.1 The Licensee shall indemnify the Council against all actions, claims, costs, damages and expenses which may arise from the breach of any of the terms of this Agreement by the Licensee.

- 6.2 The Council and the Licensee warrant that they have full power to enter into this Agreement.
- 6.3 The indemnity in Clause 6.1 shall survive the termination of this Agreement.

7. Termination

- 7.1 This Agreement shall terminate automatically on the completion of the Project.
- 7.2 The Council may terminate this Agreement with immediate effect by giving written notice upon:
 - 7.2.1 failure on the part of the Licensee to make any payment due to the Council under this Agreement for 21 days after such payment shall have become due; or
 - 7.2.2 failure on the part of the Licensee to perform any of its other obligations under this Agreement; or
 - 7.2.3 the voluntary or compulsory liquidation of the Licensee, or the appointment of a receiver, administrator or administrative receiver over all or any of its assets, or the bankruptcy of the Licensee or its making an arrangement or composition with its creditors, or the Licensee ceasing for any reason to carry on business, or the Licensee taking or suffering any similar action which, in the opinion of the Council, means that it is unable to pay its debts.
- 7.3 Termination of this Agreement for whatever reason shall be without prejudice to the rights and remedies of the Council in respect of any pre-termination breach by the Licensee of any of its obligations under this Agreement.
- 7.4 Upon termination of this Agreement, for whatever reason, the Licensee shall:
 - 7.4.1 provide a full written description of any amendments made to the Copyrighted Material, together with a description of the scenarios and tests analysed using the Copyrighted Material;
 - 7.4.2 discontinue all use of the Copyrighted Material and return immediately to the Council all material and computer files bearing or based on the Copyrighted Material; and
 - 7.4.3 delete all relevant files.

8. Notices

Any notice to be given under this Agreement shall be in writing and shall be hand delivered, sent by first class mail or email (confirmed by first class mail) to the address of the parties given at the beginning of this Agreement.

9. Whole agreement

This Agreement contains the whole agreement between the parties and supersedes any prior written or oral agreement between them and the parties confirm that they have not entered into this Agreement on the basis of any representations that are not expressly incorporated into this Agreement.

10. Variation

This Agreement may not be modified except by agreement in writing between the parties.

11. Third parties

This Agreement does not create any right enforceable by any person not a party to it.

12. Dispute resolution

12.1 If any dispute arises in relation to this Agreement, the parties will first consult in good faith in an attempt to come to an agreement in relation to the disputed matter.

12.2 Any dispute which cannot be resolved in accordance with 12.1 may be referred to mediation by either party.

13. Law and jurisdiction

This Agreement shall be governed by English law and the parties agree to submit to the exclusive jurisdiction of the English courts.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed the day and year first above written

Signed by

Designation

For and on behalf of the Council

Signed by

Designation

For and on behalf of the Licensee

APPENDIX D

SOUTH EAST DORSET MULTI-MODAL TRANSPORT MODEL PROTOCOL

**South East Dorset Multi-Modal Transport Model
MODELLING PROTOCOL**

1 Introduction

- 1.1 This note provides guidance on the protocols to be followed in the **development, use and sale** of the SE Dorset Multi Modal Transport Model (SEDMMTM) and associated outputs and data. The protocol **Form** at the end of this document should be completed:
- for each modelling task or study undertaken by or on behalf of the SE Dorset Transport Study Partnership or its successor; or
 - for all modelling activities undertaken in partnership between the identified organisations and third parties.
- 1.2 Details of each separate model activity should be identified herein. This document should therefore be updated and it represents a core element of the quality control and project management documentation.

2 Definition of Parties

- 2.1 As noted above, this is a live project management tool, and should therefore be a core part of task and study review activities. It is essential that all identified parties involved in any defined modelling task sign up to this protocol, thereby agreeing to the procedures outlined herein.
- 2.2 This protocol sets out the terms and conditions of model access, user rights and ownership rights relating to the model.
- 2.3 Section One of the Form identifies the parties involved.

3 Management of the model

- 3.1 In line with the SE Dorset Transport Study Partnership agreement, upon completion of the Transport Study, the SE Dorset Transport Modelling and Data Collection (SEDTMDC) Partnership Group has the responsibility for the ongoing management and ownership of the model. This Group is made up of representatives from the following Partnership organisations:
- Borough of Poole
 - Bournemouth Borough Council
 - Dorset County Council
 - The Highways Agency
- 3.2 These organisations, hereinafter known as 'The Partnership Group', jointly contributed to the data collection and construction of the transport model through the SE Dorset Transport Study Agreement. The continued joint ownership of the model is dependent upon future equal contributions towards the upkeep and maintenance from each of the partners. Details of the requirements for maintaining the model are outlined in Section 5 below

3.3 It is envisaged the day to day management of the transport model will be undertaken by one of the Partnership Groups' term consultants. Representatives of the Partnership Group should meet at least once a year, or as required, where the remit of the group should be to agree the following:

- Appointment of appropriate term consultant to take the lead role on day to day management of the transport model, and review performance of the consultant
- Co-ordinate traffic survey and data collection required for biennial updates and major model rebase
- Review the funding income and spend for the ongoing management of the transport model

In terms of the transport model itself, the Partnership Group should agree the following:

- Assumptions in the 'Do Minimum' or Reference Case model
 - what committed schemes should be included in future year networks
 - changes in land use assumptions – inclusion of new developments, changes to size and timing (e.g. airport industrial area)
- Technical aspects – e.g. having a consistent way of coding junctions
- Technical developments/ enhancements
- Priorities between model runs in the event of conflict
- Ensure consistent approach for Quality Assurance of model outputs

4 Contact Details

4.1 Section Two of the Form provides the contact details of the named individuals within each organisation(s).

5 Definition of the Model Covered in this Protocol

5.1 This protocol has been adopted by the persons identified in Section One of the Form and is to be applied in relation to the transport model.

5.2 The SE Dorset Multi Modal Transport Model (SEDMMTM) comprises:

- a SATURN highway model representing vehicle-based movements across the sub-region for a typical morning peak hour (08:00 – 09:00), an average inter-peak hour (10:00 – 16:00) and an evening peak hour (17:00 – 18:00);
- a EMME2 public transport model representing bus and rail-based movements across the same area and for the morning and evening peak and inter-peak time periods; and
- a five-stage multi-modal incremental EMME2 demand model that considers the impact on frequency choice, main mode choice, time period choice, destination choice, and sub-mode choice in response to changes in generalised costs across the 24-hour period (07:00 – 07:00).

5.3 The description of the model version supplied should be completed in Section 3 of the Protocol Form as follows:

- **Model:** the name attached to the model, which should be a unique identifier;
- **Type:** the software package(s) used to operate the model(s), including version numbers. This is essential such that all parties are aware of any constraints with regard to accessing and running individual models;

- **Scope/ Coverage/Time Periods:** including the geographical coverage and boundaries of the model, the time periods modelled, the modes included and any other factors that may constrain the future running or modification

5.4 To complete Section Four of the Form please select which of the following situations are relevant to the specific modelling activity being undertaken.

Updating the Model on behalf of the SE Dorset Transport Modelling and Data Collection Partnership Group

- Situation A –*updating the Model on behalf of the SE Dorset Transport Modelling and Data Collection Partnership Group.* To maintain the model in line with WebTag guidance it is necessary to undertake biennial updates which include; updating the base and forecast highway and public transport model networks; review of Demand growth, and; recalibrating/ validating the model as required. A major rebase of the model, including significant data collection, would be required every 5 years, or in advance of a Major Scheme Business Case submission. All model variations and revisions by either party will be issued for consideration by all parties. The resultant model and all subsequent variations will remain in joint ownership of the Partnership Group.

Development of the Model on behalf of one or more members of the SE Dorset Transport Modelling and Data Collection Partnership Group

- Situation B –*development of the Model by one or more partners of the SE Dorset Transport Modelling and Data Collection Partnership Group.* Further to the regular model updates, it is envisaged that one or more partners will want to improve the capability of the model in certain areas to test specific schemes or policies. All model variations and revisions by either party will be issued for consideration by all parties. The resultant model and all subsequent variations will remain in joint ownership of the Partnership Group.

Use of Model by Third Party

- Situation C – *the use of a model by a 3rd Party.* This will include the right to request updates and extensions of the model at the 3rd party's expense along with option tests. The updated model will come under the ownership of the Partnership Group and all associated rights and requirements ensue. Any updates and option tests will be undertaken by Term Consultants appointed by the Local Authorities or Highways Agency at the expense of the 3rd party.

6 Intellectual Property Rights

6.1 Where the Term consultants provide intellectual property developed on non-partnership projects to projects undertaken on the Term consultancy, the consultants will retain ownership rights and associated controls of the intellectual property.

7 Information Dissemination

7.1 As models are updated and revised, all relevant information relating to the changes made and uses to which models are being put, should be circulated to all named individuals within Section Two of the Form.

8 Deliverables

8.1 Within Section Five of the Form the Agreed Work and Deliverables should be documented. This should include details of the following items, if appropriate:

- References of models to be provided, whether base or future models;
- The year of the model provided;
- Any agreed revisions and updates required to the model; and
- Specific details of any model runs to be undertaken by the Term Consultants (of either the Local Authorities or the Highways Agency) along with the methodology for reporting output findings.

9 Arrangements for 3rd Party access

9.1 Only where expressly identified and agreed beforehand, will the Partnership Group incur any costs associated with any item identified in this protocol. All other charges will be passed onto the 3rd party in question with charges to be made in association with the structure below:

3 rd Party Involved		
Charge Type	Government Body / Stakeholder	Other 3 rd party
Administration Charges	Printing/ Posting / Packaging at Cost	Printing/ Posting / Packaging at Cost
Data Collection	Maximum of 25% of the cost of the data collected	Maximum of 100% of the cost of the data collected
Modelling Rates	At cost rates	200% of at cost rates
Processing Fee	Flat fee of £250	Flat fee of £250

All the above exclusive of VAT

9.2 The following default 'mechanisms' should be applied, unless individually specified:

	Level of access	Income to Partnership Group	Cost recouped by Term consultant
Strategic model	No direct access. Licensed for use	100% profit on modelling rates recovered from 3 rd parties	Modelling work charged at agreed rates.
Traffic data	*See below	Appropriate collection cost. [Depreciated linearly each year for next five years, until it is freely available.]	£250 processing fee

All the above exclusive of VAT

*The data is to be for the sole use of the purchaser and is not to be sold/ provided to third parties. Any subsequent reports should reference the information purchased from the Partnership Group. The data will be provided in

the same form as that received from the original survey company. The purchaser is reminded that the data has not been processed in any form from this original source, and the purchaser remains solely responsible for the appropriate use of the data.

- 9.3 Section Seven of the Form should identify clearly the payment arrangements for any purchase of data or models. This must include a statement indicating the recipient of monies (the Partnership Group or Term consultant) and the invoicing and payment schedules.

10 Timescale

- 10.1 The Partnership Group will make all reasonable endeavours to provide the agreed deliverables within timescales agreeable to all parties on the condition that the Partnership Group has been provided with all necessary information to carry out the agreed tasks. The Partnership Group will not be liable for any costs, charges or losses sustained or incurred by the 3rd party that arise directly or indirectly from a delay in providing the agreed deliverables in the agreed timescales.
- 10.2 If the Partnership Group, or that if its agents, subcontractors, consultants or employees is prevented or delayed by any act of omission of the 3rd party, its agents, subcontractors, consultants or employees the Partnership Group will not be liable for any costs, charges or losses sustained or incurred by the 3rd party that arise directly or indirectly from such prevention or delay.

11 Additional Information

- 11.1 Section seven provides space for additional lines in the protocol which should be added as required to document further information pertinent to the modelling requirements in question.

EXAMPLE Modelling Protocol Agreement

EXAMPLE Protocol should be deleted when completing new Protocol.

Remove contact details for named individuals

Section One - Party Identification and Sign-up			
Core Modelling Team		Organisation	Name
Partnership Group Representative			
Commissioning Partner(s)			
Term Consultant Project Manager			
Third Party		Organisation	Name
Government Body / Stakeholder(s)			
Private Developer(s)			
Private Consultant(s)			
Other(s)			
Section Two - Contact Details			
Organisation	Named Contact	Phone Number	Email Address
DCC			
DEC			
Partnership Group			
Section Three – Model(s) Covered by this Protocol			
Model	Type and Version Number / Reference	Scope / Coverage / Time Periods	
Strategic Highway Model	SATURN v10.8.21 software Version	2008 Validated Base Year AM/IP/PM Models 2026 Forecast Reference AM/IP/PM Models	
Strategic Public Transport Model	EMME2/? v ??		
Demand Model	EMME2/? v ??		
Section Four - Model User Rights			
Scenario Number	Provide a description of the Permitted use of Model		
Situation B	Development of the Model by one or more partners of the SE Dorset Transport Modelling and Data Collection Group. Further to the regular model updates, it is envisaged that one or more partners will want to improve the capability of the model in certain areas to test specific schemes or policies. All model variations and revisions by either party will be issued for consideration by all parties. The resultant model and all subsequent variations will remain in joint ownership of the Partnership Group.		
Section Five – Agreed Work and Deliverables			

Model Type	Year	Version Number / Reference
Base Model	2008	2008 AM and PM base model V2.b.x???
Future Model	2026	2026 AM and PM Model V3.a.x??
Details of Agreed Work and Deliverables		
Model Runs	Test the impact of future development and infrastructure scenario's at the airport business park and Parley area.	Short technical report documenting impact including changes in queues and delays to be provided.
Model Extensions / Updates	Disaggregate the model zone system around the airport and Parley area. Code the various infrastructure options	Short technical report documenting model development.
Section Six – Timescales		
Details of Work		Agreed Timescales for Completion and Delivery
Option tests using 2026 am/ip/pm model. Test impact of additional traffic through corridor using agreed model. Short technical report to document the findings and the impact on the corridor to include details of changes in delay and queuing.		Two weeks from date of receipt of completed protocol and necessary information.
Section Seven – Additional Information		
<p><i>details of scenario's tested and model runs to be provided in Model Run control sheet (template provided), appended to this protocol upon completion of work.</i></p> <p>To be charged at cost to the DCC Client – no income for the Partnership Group</p> <p>Any modelling work undertaken on behalf of PBA/ Bournemouth Airport to be charged @ 200% of cost. Costs to be recouped by Term consultant (DEC), 100% profit to be paid to Partnership Group Account Holder (Borough of Poole) to fund future model improvements.</p>		

Modelling Protocol Agreement

Italic text highlighted in yellow provides a description of the information required and should be overwritten or deleted as appropriate when completing the actual Protocol Agreement

Remove contact details for named individuals

Section One - Party Identification and Sign-up			
Core Modelling Team	Organisation	Name	Signature
Partnership Group Representative			
Commissioning Partner(s)			
Term Consultant Project Manager			
Third Party	Organisation	Name	Signature
Government Body / Stakeholder(s)			
Private Developer(s)			
Private Consultant(s)			
Other(s)			
Section Two - Contact Details			
Organisation	Named Contact	Phone Number	Email Address
Partnership Group			
Section Three – Model(s) Covered by this Protocol			
Model	Type and Version Number / Reference	Scope / Coverage / Time Periods	
Strategic Highway Model	<i>the software package(s) used to operate the model(s), including version numbers. This is essential such that all parties are aware of any constraints with regard to accessing and running individual models</i>	<i>including the geographical coverage and boundaries of the model, the time periods modelled, the modes included and any other factors that may constrain the future running or modification</i>	
Strategic Public Transport Model			
Demand Model			
Section Four - Model User Rights			
Scenario Number	Provide a description of the Permitted use of Model		
<i>Situation A/B/C</i>	<i>Select relevant descriptive text from Para 5.4 in main body of agreement above .</i>		
Section Five – Agreed Work and Deliverables			
Model Type	Year	Version Number / Reference	
Base Model	20xx		
Future Model	20xx		

Details of Agreed Work and Deliverables	
Model Runs	
Model Extensions / Updates	
Section Six – Timescales	
Details of Work	Agreed Timescales for Completion and Delivery
<i>Summary of work</i>	
Section Seven – Additional Information	
<i>Details of scenario's tested and model runs to be provided in Model Run control sheet (template provided), appended to this protocol upon completion of work.</i>	

Appendix 2. Management of income generated

Draft protocol of expenditure of modelling fund.

Parties:

Chief Engineer – Developer Related Infrastructure
Principal Engineer – Transportation Modelling
Senior Engineer – Transportation Modelling
Principal Transport Planner (LDF)
Engineer – Transport Development Management

Fund held by Highways under Chief Engineer – Developer Related Infrastructure.

Model access fees to be paid under a separate order number.
Also 25 % of the £500 day rate to be paid under this order number.

Initially, quarterly meetings will be held between Transport Modelling Team, Local Transport Plan – LDF Team, Transport Development Management and other Officers as necessary. Even with low fund value, this meeting will be undertaken to ensure joint working by the three teams. Frequency of meeting will be reviewed as appropriate.

Transportation Modelling Team to keep an up to date record of fund value.

Prior to the quarterly meeting Transportation Modelling Team to release details of current fund value.

Priorities for fund expenditure will be decided based upon maintaining a valid modelling base, on current and proposed development within the County and on other sources of funding available.

Funds may be released every three months for work to be undertaken or held over a longer period to contribute towards strategic model development.

Funds will only be spent on maintaining, updating or creating transport models or on undertaking transport surveys in support of modelling work.

The parties will review the protocol document as necessary and at least on an annual basis.