

SAVELL BIRD & AXON

Transport & Traffic Consultants

The Church Commissioners

EXETER GATEWAY INTERMODAL FREIGHT TERMINAL

**Addendum to
the June 2000 Traffic Impact Assessment**

April 2005

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1 INTRODUCTION

- 1.1 This Addendum updates and expands on the June 2000 Traffic Impact Assessment (TIA) for the proposed Exeter Gateway Intermodal Freight Terminal.
- 1.2 The TIA looked at both phases of the proposed scheme, ie Phase 1 comprising the Intermodal Freight terminal freight distribution centre, and Phase 2 which is projected to increase the total development to some 152,725 sq metres. A Planning Application was submitted in 2000 for Phase 1, with an indicative masterplan for both phases. The new A30 dual carriageway Trunk Road had recently opened, and the TIA was based on projected traffic flows derived by Halcrow Fox in their TIA for the proposed Skypark and airport expansion developments. The TIA thus took account of the proposed Skypark and airport expansion developments, but did not make allowance for the proposed new settlement, the planning application for which was not submitted until several years later, or the major office proposals subsequently developed to the west of the M5. Assessment years were 2006 and 2011.
- 1.3 The Highways Agency (HA) and Devon County Council were concerned about the cumulative impact of these developments on the County and Trunk road networks, and commissioned Parson Brinkerhoff to prepare an assessment, which was part-funded by the developers. A series of reports were produced, culminating in the September 2004 report “**New Community and Exeter Area of Economic Activity - Phase 1 Access Strategy and Options for Phase 2**”.
- 1.4 This report identified an access strategy to accommodate Phase 1 of the Exeter Gateway IMFT proposal, elements of the airport expansion, and approximately 70% of the Skypark and New Community proposals. The main component of this strategy is the construction of the Clyst Honiton bypass and minor alterations to the layout of the A30 Exeter Airport junction. The remaining balance of these development schemes was expected to be developed subsequently, and the report outlined some general highway options to accommodate this, which are referred to as the Phase 2 Access Strategy.

- 1.5 In order to enable it to respond formally to East Devon District Council on the various applications the HA has requested that each developer prepare an Transport Assessment Addendum to bring the original reports, which were completed several years ago, up to date. These addenda would also support updated and amended planning applications
- 1.6 The Access Strategy and Options report identifies all of the areas where traffic impact is likely to be of concern, and includes assessments of the cumulative traffic impact of all of the major developments. This is the work that has been used to design the Access Strategy, and so there is no useful purpose served in reproducing this work separately in this TA Addendum. After discussions with the HA, it has been agreed that the Addendum need not repeat the traffic modelling work carried out by Parsons Brinkerhoff, provided that the Access Strategy and Options report is acknowledged, and the document itself and the updating memorandum is attached as an Appendix. This Addendum report therefore contains the following:
- Description of the proposals, phasing and access strategy;
 - Reference to the September 2004 Access Strategy Report and subsequent memorandum of 9 March 2005 as the location where traffic generation and traffic impact issues have been examined;
 - An explanation of the agreed method of dealing with Phase 2 of the Exeter Gateway proposals;
 - Confirmation of the intention to agree and implement a Travel Plan;
 - Confirmation of the need to agree and implement an appropriate construction management scheme to regulate traffic generation and routing of construction traffic during construction;
 - Proposals for discouraging or preventing traffic generated by the Exeter Gateway proposals IMFT from using the former A30.
 - Conclusions.

2 DESCRIPTION OF THE PROPOSALS, PHASING AND ACCESS STRATEGY

- 2.1 The Exeter Gateway proposals fulfil the allocation for an Intermodal Freight Facility and Distribution Centre shown on the proposals map in the emerging Local Plan on approximately 65 hectares of land north of the former A30 east of Clyst Honiton. The principle of development at this location has now been supported by the Local Plan Inquiry Inspector
- 2.2 Phase 1 of the development, which is the subject of the existing planning application, comprises the Intermodal Freight terminal plus warehousing, and will be situated towards the west of the allocated site, above the level of the floodplain of the River Clyst, and west of Hayes Farm. Vehicular access to Phase 1 will be provided from a traffic signal controlled junction at the north end of the proposed Clyst Honiton by-pass close to where it diverges from the former A30.
- 2.3 Phase 2 comprising further warehousing, will bring the total floorspace to 152,725 sq metres. It will be developed on the eastern part of the allocated site, to the north of Hayes Farm, and will take its access from the former A30 east of Hayes Farm.
- 2.4 Devon County Council responded to consultation on the Planning Application recommending a number of matters which it advised should be covered by condition and/or agreement. Appendix 1 to the 2002 committee report setting out the recommendation is appended to this statement (**Appendix 1**). In summary the County Council were concerned to ensure that:
- i) The development will be genuinely accessible by rail before any part of the development comes into operation;
 - ii) Limits are placed on the amount of floorspace that may be occupied prior to the time that the Clyst Honiton by-pass (referred to in the appendix as “the link road”) is completed and available for use;

- iii) Safeguards are imposed to ensure that the impact of the development, individually and in combination with other developments in the vicinity, is adequately mitigated.

2.5 It is proposed shortly to submit a planning application for the Clyst Honiton by-pass. This is likely to be a joint application by Devon County Council, the Church Commissioners and the New Community Partners, with Devon CC taking the lead in preparation of the application. All of the land required for the by-pass is either highway land, or is owned by Devon CC or the Church Commissioners.

2.6 Under the terms of the Memorandum of Agreement between the above parties, the HA and East Devon District Council, the bypass and associated works covered by the planning permission being sought must provide an acceptable form of access to the initial phases of all the developments, ie including phase 1 of the Exeter Gateway proposals. The Memorandum also provides that Phase 2 of Exeter Gateway will be capable of completion regardless of whether and when a Phase 2 Access Strategy is implemented, provided traffic is limited in the peak hours. Moreover, it will not be liable for any costs associated with a Phase 2 Access Strategy. A copy of the Memorandum of Agreement is appended to this Addendum (**Appendix 2**).

2.7 The County Council is therefore tasked to design an appropriate scheme for the Clyst Honiton by-pass and associated measures (including the junction at the north connecting to the former A30 and the Phase 1 Exeter Gateway site). **Appendix 3** contains a draft layout for this which the Church Commissioners have agreed in principle. It is expected that this plan or a development of it will form part of the formal legal agreement between the highway and planning authorities, the landowners and developers, and the Church Commissioners under which the Church Commissioners will make their land available for the by-pass.

3 TRAFFIC GENERATION AND TRAFFIC IMPACT ISSUES

3.1 **Appendix 4** contains the Access Strategy Report dated September 2004 and **Appendix 5 contains** the subsequent Memorandum of 9 March 2005. The Access Strategy Report addresses the following topics:

- An assessment of highway conditions in the study area
- Accessibility by non-car modes
- Trip generation and distribution of developments
- Phase 1 Access Strategy
- Phase 2 Options

3.2 The report applies agreed trip generation rates, mode share data and trip distributions to each of the major development proposals, and assesses the impact of the resulting traffic generation levels on the critical parts of the road network at 2006 and 2016. It concludes that with minor improvements at the A30 Exeter Airport Junction and the construction of the Clyst Honiton by-pass, levels of development can be accommodated, equal to approximately 70% of the other current applications and 100% of Exeter Gateway Phase 1. This is the Phase 1 Access Strategy.

3.3 Phase 1 would also require a range of measures to reduce the dependence on single occupancy car based traffic. This would include the delivery of, or contributions to, a series of improvements to the public and private transport infrastructure.

3.4 In relation to Phase 2, three highway options are identified which would accommodate the remaining 30% of the emerging Structure Plan developments. The three options are identified in the report.

3.5 The Phase 1 Access Strategy and Options for Phase 2 have been agreed by all key stakeholders.

- 3.6 For the purposes of approving the planning applications for the developments, the HA's rules require their impacts to be assessed 15 years after opening. The appropriate design year is now considered by the HA to be 2026. Parsons Brinkerhoff were therefore commissioned to repeat the impact assessment for a design year of 2026, looking specifically at the impact of Phase 1 on the A30 airport junction, and M5 Junction 29. This work is described in their Memorandum dated 9th March 2005 (Appendix 5). The conclusion of this work was that the change in design year does not fundamentally alter the earlier conclusions in respect of the A30 Airport junction, and that Junction 29 should continue to operate within capacity in the peak hours.

4 EXETER GATEWAY PHASE 2 PROPOSALS

- 4.1 The Memorandum of Agreement provides that Phase 2 of Exeter Gateway will be capable of completion regardless of whether and when a Phase 2 Access Strategy is implemented, provided traffic is limited in the peak hours.
- 4.2 The Church Commissioners and their advisors are satisfied that this requirement can be complied with, and that it will not unduly affect the operation of the development. Firstly the traffic generation estimates used in the TA and in the Access Strategy Report are relatively robust as they make only limited allowance for the dispersal of arrivals and departures due to the hours of operation which are likely to extend beyond the traditional commuter peaks. They assume that as a worst case, none of the freight movements will be rail linked. Therefore the likelihood is that unrestrained traffic generation may not reach the Phase 1 estimates until some way into the life of Phase 2.
- 4.3 Secondly, and provided adequate provision is made within individual leases, it will be possible to arrange shift patterns or employee starting times so as to minimise the need for employees or goods to arrive or leave during the peak hour.
- 4.4 Finally there is a nearby precedent for imposing limits. An agreement with the EDF development further west on the A30 involved the employer stating in their Transport Assessment that there would be a low number of car based trips accessing the building during peak hours. To provide assurance that this limit would not be exceeded, the employer agreed to a monitoring of the travel demand and a toll or penalty should the limit of trips be exceeded.

5 TRAVEL PLAN

- 5.1 The original TA stated that the Church Commissioners were prepared to enter into a commitment to draw up and implement a Green Transport Plan in consultation with Devon County Council, and administered through the site management with the objective of minimising the number of cars brought to the site and reducing car dependency.
- 5.2 It is anticipated that the eventual Transport Plan will be drawn up under contemporary guidance, and reflecting the measures agreed for the other major developments in the area. The relatively small numbers employed at the proposed IMFT and distribution warehousing means that there will be limited opportunities to effect mode change on its own, but there may be better opportunities for linking up with adjacent development for the purposes of maximising the effectiveness of public transport initiatives, publicity and car sharing schemes.

6 TRAFFIC DURING CONSTRUCTION

- 6.1 At this stage the scheme has not been designed in detail, and there are no estimates of volumes of material or build rates on which to base an estimate of construction traffic. It is unlikely that construction alone will give rise to any traffic capacity concerns, and the main issue will be routing of heavy lorries, and their means of access to and from the site during construction. Given that part of the site has operated as a quarry for several years until recently, it is unlikely that construction issues will be difficult to resolve.
- 6.2 At present it is not known if the Clyst Honiton by-pass will be available for use at the start of the building programme. Therefore the precise routing of construction traffic cannot be decided at present. It would therefore be appropriate to impose a condition on the planning permission requiring a routing agreement to be agreed with the highway and planning authorities prior to the start of construction, when its requirements will be capable of being more appropriately defined.

7 RESTRICTING ACCESS TO FORMER A30

- 7.1 As with construction traffic the precise circumstances in which the development will be operating at different times during its life are not known at present. There is a general assumption that goods traffic will be discouraged from using the former A30 through Clyst Honiton, although this will only be a practical requirement once the Clyst Honiton by-pass is built. Up to that time, goods traffic may need to pass through Clyst Honiton, although the amount of development, and hence the amount of traffic, will be limited.
- 7.2 It would therefore be appropriate to attach a lorry routing requirement, either as a condition of the permission, or as a clause of the S106 agreement, to enable appropriate lorry routing controls to be imposed.
- 7.3 Meanwhile the Church Commissioners have agreed to contribute up to £100,000 towards remedial measures on the former A30, which could include measures to discourage through traffic and facilitate bus services.

8 CONCLUSIONS

- 8.1 This Addendum report provides an up to date description of the Exeter Gateway proposal, its phasing and access strategy, and explains that the latter has been considered in detail in an assessment of cumulative impact contained in the Access Strategy Report (September 2004). This report considers traffic generation and traffic impact issues, and concludes that with improvements to the A30 airport junction and the construction of the Clyst Honiton by-pass, Phase 1 of the development can be accommodated together with about 70% of the other major developments. These conclusions are confirmed for a design year of 2026 in the subsequent Memorandum.
- 8.2 Meanwhile a separate Memorandum of Agreement provides a framework within which the Church Commissioners will make available the land in their ownership to enable the by-pass to be constructed, and for the design of the by-pass and ancillary works (to be designed by Devon County Council) to accommodate Phase 1 of the major developments, and Phases 1 and 2 of Exeter Gateway.
- 8.3 The Memorandum of Agreement (to which the HA are also a signatory) confirms that provided it generates no more traffic in the peak hour than was allowed for in the Phase 1 Access Strategy, Phase 2 could proceed without any further contributions.
- 8.4 This Addendum also:
- Confirms the intention to draw up and implement an agreed Travel Plan, and;
 - to draw up and implement an appropriate construction management scheme to regulate the routing of construction traffic during construction, and ;
 - Confirms the willingness to accept a condition or S106 clause preventing traffic generated by the Exeter Gateway proposals IMFT from using the former A30 once an alternative route is available.

APPENDIX 1

Planning and Highway Consultation

East Devon District: Outline Planning Application: Road/Rail Intermodal Freight Terminal, Warehousing and Link Road to New A30, Hayes Farm, Clyst Honiton, Near Exeter

Application No. 00/P1394

In the event of planning permission being granted, the following matters should either be covered by condition and/or the agreement.

1. Before development commences, the Local Planning Authority is to be satisfied that W7 wagons can access the development from the Exeter to Bristol main railway line.
2. Before any part of the development is occupied or brought into operation an adequate rail junction with the Exeter to Salisbury mainline is to be provided that gives access to the Intermodal Freight Terminal at all times of day.
3. Before occupation of any warehouse unit the Intermodal Freight Terminal with operating rail sidings, security fencing, stacking areas and necessary office management facilities is to be completed and operational.
4. The railhead and up to 12,000 square metres of warehouse floor space may be constructed and occupied prior to the construction and availability for use of the link road to the A30(T). Upon occupation of in excess of 12,000 square metres and less than 37,000 square metres the link road is to be completed and available for use within five years. No occupation in excess of 37,000 square metres of floor space, will be permitted until such time as the link road is available to use.
5. The developer shall enter into a Legal Agreement with the Local Planning Authority and/or the Highway Authority as appropriate that:
 - (a) a refined Transport Assessment be prepared in accordance with the comments made in Section 5 of this report, to enable the effects of this development, when combined with other developments in the vicinity, to be assessed comprehensively with them;
 - (b) the developer fully funds the seeking of appropriate traffic management measures at the appropriate time, and, if approved, their implementation to discourage or curtail the use of the former A30 near Clyst Honiton by any vehicle except high occupancy vehicles and/or buses and cyclists;
 - (c) the developer prepare a Green Travel Plan for the whole of the development whose obligations will pass to the individual developments within it, to encourage the shared use of cars to travel to work, and to encourage use of alternative modes of transport other than the private car.

APPENDIX 2

CLYST HONITON BYPASS MEMORANDUM OF AGREEMENT

The Memorandum of Agreement is made between the Church Commissioners "Church Commissioners", Persimmon Homes, Hallam Land, Taylor Woodrow, Westbury, Redrow Homes "the New Community Partners", Devon County Council, the Highways Agency and East Devon District Council in respect of the delivery of the Clyst Honiton Bypass.

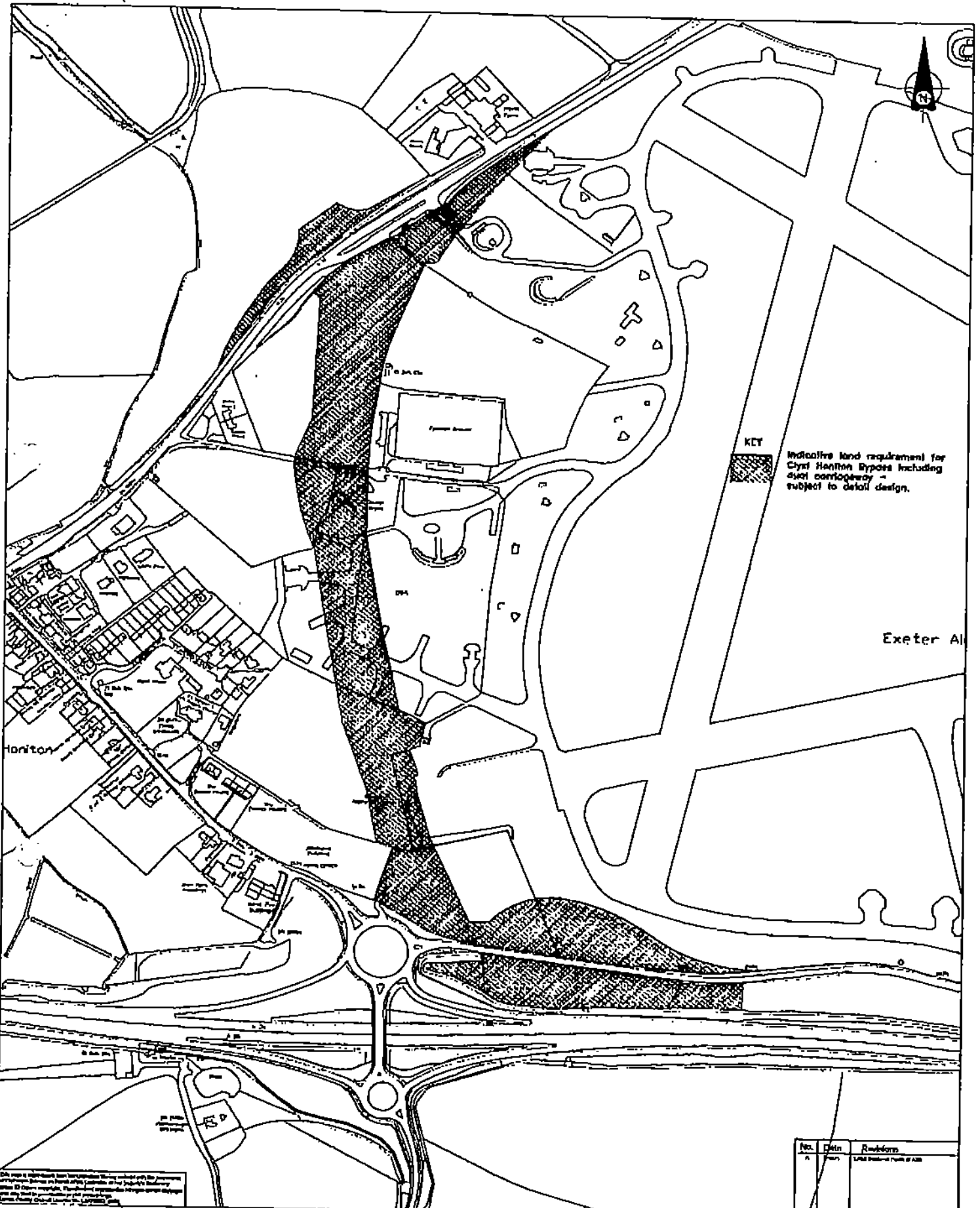
Set out below are details of the arrangements whereby the parties to the agreement will work together to deliver the construction of the proposed Clyst Honiton Bypass as part of the strategic developments planned for the East of Exeter.

1. The Church Commissioners and Devon County Council will make their land available to facilitate the Clyst Honiton Bypass and its associated local junction improvements (from land in their ownerships or control as identified on the attached plan) for £1 and commit to the necessary highway agreements to facilitate the adoption and use thereof as public highway as set out in Phase 1 of the Access Strategy agreed by the Highways' Authorities, East Devon District Council and the South West Regional Development Agency presented as Core Proof of evidence by Kate Little, Head of Planning & Countryside Services, East Devon District Council to the Local Plan Inquiry into the emerging East Devon Local Plan (Reference No. CD/8/6). The Church Commissioners shall not be required to deliver their land until (a) enforceable legal agreements are in place providing for construction and adoption of the Clyst Honiton bypass and associated Phase 1 works and (b) resolution to grant planning permission has been given to the Church Commissioners for the intermodal freight facility and distribution centre.

I certify this to be a true copy of the original document

S. Little
County Solicitor,
Devon County Council

-7 JAN 2005



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J01

EAST OF EXETER LINKS
Clyst Horiton Bypass

DRAWING TITLE:
INDICATIVE LAND PLAN

No.	Date	Revisions
1		Initial Issue - (work in progress)

Scale:	1:1000
Drawn by:	ADJ
Checked by:	ADJ
Drawn:	ADJ
Drawn Date:	12/06/05
Drawn No.:	04PH055/7A

2. The Church Commissioners and Devon County Council will also dedicate additional land as reasonably necessary on the same basis for Phase 2 Improvements identified in the aforementioned document, in particular this provides for the potential dualling of the Clyst Honiton Bypass and facilitate the adoption thereof as public highway when necessary for £1.
3. The Highways Authorities acknowledge that all of the proposed Intermodal Freight Facility and Distribution Centre as shown on the Emerging East Devon Local Plan Proposals Map (approximately 65ha) will be implemented for the purpose of the aforementioned Access Strategy with the Phase 1 Access Strategy in place provided there is an agreed limit on traffic movements during the peak hours. For the sake of clarity, the Intermodal Freight Facility and Distribution Centre will be capable of completion regardless of whether and when a Phase 2 Access Strategy is implemented provided traffic is limited in the peak hours. Moreover, the Intermodal Freight Facility and Distribution Centre will not be liable for any costs associated with a Phase 2 Access Strategy.
4. All of the above are subject to a grant of planning permission for the Clyst Honiton Bypass and associated works that provides an acceptable form of access to the initial phases of all the major developments.
5. All infrastructure associated with the Clyst Honiton Bypass and associated junction improvements shall be provided to the boundary of Church Commissioners land and Devon County Council land with there being no ransom strips.
6. As soon as is reasonably possible, and in any event within six months of this agreement, Devon County Council will submit a full planning application

together with requisite fee supported by the appropriate technical documentation sufficient for the determination of the planning application for the construction of the Clyst Honiton Bypass. And that application will fall within, and only within the land owned or controlled by the Church Commissioners' and Devon County Council (as shown on the attached plan)

7. Provided that the New Community Partners obtain planning permission for that part of the Strategic Developments Planned for the East of Exeter known as the New Community they will:-

- Fund the final design of the Clyst Honiton Bypass;
- Construct the bypass from the A30 trunk road to and including a junction connection with the old A30 as agreed by the Highway Authority and the provision of a junction on the bypass north of the airport runway to access the new terminal and to control surge traffic;
- Fund the cost of any mitigation works associated with the Clyst Honiton Bypass;
- Bear the cost of all claims made under the Land Compensation Act 1973 as a consequence of the use of the Clyst Honiton Bypass.

Provided that on receipt of such claims the New Community Partners are as soon as reasonably practicable advised thereof and are thereafter kept informed by the County Council in relation thereto the objective being to minimise the level of any claim.

Provided that, in the design and construction of the above mentioned, the County Council and the Highways Agency (the Highways Authorities) will at all times work with the New Community Partners to seek to effect a solution that minimises the cost thereof so far as is practicable having regard to the

need to achieve a road which is fit for purpose having regard to prevailing design standards.

All the above being necessary to deliver the Clyst Honiton Bypass and its associated junctions, as defined above as required by Phase 1 Access Strategy following receipt of planning permission.

8. Following the construction of the Clyst Honiton Bypass by the New Community Partners and the development of 40% of Skypark, the owner of Skypark will pay the New Community Partners the lesser of the following sums:
 - a. 17.5% of the cost of construction of the Clyst Honiton Bypass as certified by the County Environment Director, or
 - b. £1,000,000
9. The parties to this Memorandum of Agreement agree that it provides sufficient confidence that the Clyst Honiton Bypass can be constructed so as to permit the enabling development identified in section 5.9 of Kate Little's Core Proof of Evidence and for clarification purposes the Highway Authorities and East Devon District Council agree that paragraph 5.9.3 of Kate Little's Core Proof of Evidence Document CD3/8/8 shall be deleted. The precise level of enabling development will require the approval of the Highways Agency.
10. The parties will hereafter work towards a formal legal agreement for the transfer of the land as set out above.

The Memorandum of Agreement has been agreed by the following parties:

1. Church Commissioners

Signed 

Name S. S. McELLIGAN

Position Agent to the Church Commissioners

Date 5.1.05

New Community Partners


Signed 

Name M. A. MUNNERY

Position Director, Human Resources

Date 5/1/05

New Community Partners

Signed 

Name DEREK WOODWARD

Position STRATEGIC PROJECTS DIRECTOR

Date 5/1/05

2. New Community Partners

Signed 

Name P. R. DAVIS

Position STRATEGIC UNIT DIRECTOR

Date 5/1/05

Signed 

Name TREVOR PILEAM

Position PROJECT MANAGER

Date 5/1/05

Signed 

Name PAUL CHESTER

Position PLANNING DIRECTOR

Date 5/1/05

3. Devon County Council

Signed 

Name ROBERT RASH

Position COUNTY SOLICITOR DEVON COUNTY COUNCIL

Date 5/1/05

4. Highways Agency

Signed 

Name John Parsons

Position NETWORK STRATEGY MANAGER

Date 5th January 2005

5. East Devon District Council

Signed 

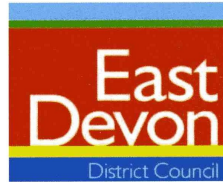
Name KIRSTIE HAXTON

Position CORPORATE DIRECTOR ENVIRONMENT

Date 5.1.05

APPENDIX 3

APPENDIX 4



EAST DEVON DISTRICT COUNCIL REVISED DEPOSIT LOCAL PLAN

NEW COMMUNITY AND EXETER AREA OF ECONOMIC ACTIVITY

PHASE 1 ACCESS STRATEGY AND OPTIONS FOR PHASE 2

Report No. TUE91002A/4.1/1/5

FINAL REPORT

September 2004



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1 INTRODUCTION

1.1 Background

1.1.1 Since 2001 a partnership of the Highways Agency (HA), Devon County Council (DCC), East Devon District Council (EDDC) and the developers have been working towards producing an Access Strategy for the proposed developments in the East Devon Area of Economic Activity (AEA). The work initially involved undertaking a comprehensive traffic study and associated traffic models. The study area is shown in Figure 1. This transport assessment included an analysis of the likely traffic generation of the individual development sites and how they would interact. A key element of the assessment was to ensure that the combination of the development sites formed part of a sustainable package that fulfilled national and local transport policies.

1.1.2 The programme for the Local Plan Inquiry into the EDDC Revised Deposit Local Plan (RDLP) has agreed to review the AEA developments in Stage 1 of the Local Plan Inquiry. This document summarises the position of the Key Stakeholders (HA, DCC, EDDC and the Regional Development Agency) in developing a phased approach to the transport issues associated with the developments. The highway access strategy is phased in accordance with the predicted traffic demand. The developers (Skypark, Exeter Airport, Inter-Modal Freight Terminal and East Devon New Community) have been involved throughout this process in the strategy and technical development over several years.

1.1.3 On production of the Draft version of this document the four developers were invited to comment upon its content and several meetings and discussions were held. This has allowed the Key Stakeholders to review their comments and amend the draft document where they believe it is appropriate.

1.1.4 Comments have also been received from Connect, the HA's maintaining agent for the Private Finance Initiative, Design Build Finance and Operate (DBFO) contract for the A30/A35 Project road.

1.2 Development Sites

1.2.1 In the Local Plan period up to 2011, it is anticipated that 2900 dwellings will be constructed at the proposed East Devon New Community (EDNC), Proposal AEA1. The employment land will be accommodated on 25 hectares at a proposed business park (Skypark), Proposal AEA3.

1.2.2 In addition to Skypark and the EDNC, the Local Plan identifies:

- An Inter-Modal Freight Terminal (IMFT), Proposal AEA2. The reason of which is to facilitate the transfer of freight from road to rail with all the advantages that this brings nationally
- The expansion and development of Exeter Airport, Proposal AEA4 supported by the recent Government White Paper

1.2.3 A location plan of the proposed developments is shown in Figure 2.

1.2.4 The emerging Devon Structure Plan requires the development of 3000+ dwellings and 30 hectares of employment land in the AEA by 2016. In addition the Structure Plan identifies an opportunity for a Science Park (25 hectares) on land adjacent to the A30 to the east of M5 Junction 29.

- 1.2.5 The size of the development and its juxtaposition offers good opportunities for reducing the demand for car-based travel. A series of schemes to encourage the use of walk, cycle and public transport modes will be developed together with the appropriate car restraint measures.
- 1.2.6 Access for vehicle-based traffic, other than internal movements along the old A30 between developments and some local traffic, is planned to be primarily via the trunk road network, including making use of the A30 Exeter Airport Junction. This will involve the construction of the Clyst Honiton Eastern Bypass (CHBP) and other transport works, which is outlined in Proposal AEA5 in the RDLP.
- 1.2.7 The impact of the AEA developments requires an assessment of the operation of the A30 trunk road, its junctions at Exeter Airport & Blackhorse, and M5 Junctions 29 & 30. In addition to these locations, Moor Lane Roundabout to the west of Junction 29 has some influence on the operation of the trunk road network. The locations of these junctions are shown on Figure 1.

1.3 Aim and Objective

- 1.3.1 The HA, DCC and the Regional Development Agency (RDA) have been working in partnership with East Devon District Council and the developers to produce a sustainable development and to derive a recommended strategy for phased access to the development off the A30 Trunk Road.
- 1.3.2 This report explains the Highway Authorities view of Access Phases and provides support to the RDLP, taking into account the developments in the AEA. These include the EDNC, Skypark, IMFT and the new Exeter Airport terminal and access options for the emerging Structure Plan land uses in the AEA.
- 1.3.3 The contents of this report include:
- Assessment of existing highway layout and conditions in the study area
 - Accessibility by non-car modes
 - Trip generation and distribution of developments
 - Phase 1 Access Strategy
 - Phase 2 Options

2 EXISTING CONDITIONS

2.1 Study Area

2.1.1 The study area covers the local trunk road network between Moor Lane Roundabout and M5 junctions 29 & 30 to the west and the A30 Daisy Mount junction to the east. It also includes the old A30 road between Blackhorse Junction and the site of the proposed EDNC near Rockbeare. The study area can be seen in Figure 1.

2.2 A30 Daisy Mount

2.2.1 Daisy Mount Junction is located approximately 10 kilometres to the east of M5 Junction 29 and is a grade separated 'dumbbell' junction that connects the A30 trunk road to the old A30. The junction provides access from the east to the villages along the old A30, including Rockbeare and other communities in East Devon. It is considered that the junction has considerable spare capacity for additional traffic.

2.3 A30 Exeter Airport Junction

2.3.1 Approximately 2 kilometres to the east of M5 Junction 29 there is a grade-separated 'dumbbell' junction that connects to Exeter Airport, Clyst Honiton and the local roads. Figure 3 shows a plan of existing layout of the A30 Exeter Airport Junction.

2.3.2 The A30 Exeter Airport Junction was provided by the Highways Agency in August 1999 as part of the A30 trunk road improvement as a strategic connection to Exeter Airport. It also provides a bypass for the village of Clyst Honiton, which previously formed the main route to the Airport and the Industrial Estate from the old A30. The infrastructure is a considerable asset to the network in the area, is of a high quality and has spare capacity.

2.3.3 The northern roundabout at the junction has an inscribed circle diameter of 70 metres and has five arms: A30 eastbound offslip, Clyst Honiton, B3184, A30 eastbound onslip and the bridge that connects to the south roundabout. The main constraints at this junction are the five arms and the comparatively high number of vehicles accessing the existing industrial area and airport via the B3184.

2.3.4 The southern roundabout has an inscribed circle diameter of 50 metres and has four arms: A30 westbound offslip, Bishops Court Lane, A30 westbound onslip and the bridge that connects to the north roundabout. The carriageway on the bridge between the two roundabouts is 8.9 metres wide with footways on either side. The limited diameter of the southern roundabout has a significant impact on the capacity of the A30 Exeter Airport Junction.

2.4 Blackhorse Junction

2.4.1 Blackhorse Junction is located between the A30 Exeter Airport Junction and M5 Junction 29. It connects to the A30 trunk road, the old A30 road and Sowton Lane, and mainly serves the villages of Blackhorse, Sowton and Rockbeare. The junction is grade separated although it only provides slip roads for traffic travelling to and from the A30 West.

2.4.2 On the A30 eastbound carriageway between M5 Junction 29 and Blackhorse Junction there are 4 lanes at the motorway junction that merge, approximately 40 metres downstream, to 2 ahead lanes plus a nearside lane used as a dedicated lane for the Blackhorse Junction offslip.

2.4.3 On the A30 westbound carriageway between Blackhorse Junction and Junction 29 there are 2 ahead lanes, plus a nearside lane dedicated for traffic heading towards the M5 South. The other two lanes are used by traffic heading towards Exeter.

2.4.4 The speed restrictions to the west of Blackhorse Junction are 40 mph on the A30 westbound carriageway and the national speed limit on the eastbound carriageway. To the east of Blackhorse Junction the A30 is subject to the national speed limit in both directions. Figure 4 shows the as-built and current layout of Blackhorse Junction, the weaving areas on the A30 to the west of the junction, and the location of the speed restrictions now in place.

2.4.5 The Blackhorse Junction was originally designed to the superseded Department of Transport standard TD 22/86 in order to accommodate the access of local traffic on to the trunk road. The current Design Manual for Roads and Bridges (DMRB) standard TD 22/92 (Layout of Grade Separated Junctions) states the following in paragraph 4.23:

TD 22/92 Paragraph 4.23: For Rural All-Purpose Roads with design speeds of 120 or where speed limits have been imposed to create a design speed of 100A kph, the Desirable Minimum weaving length shall be 1 kilometre with an Absolute Minimum of 450m for the extreme cases with traffic forecasts at the lower end of the range for the specific carriageway as mentioned in 4.22. Here, for example, on carriageways up to 3 lanes wide, the maximum distance over which successive merges and diverges are likely to interact and cause weaving is around 2 kilometres and this should be taken as the maximum weaving length.

2.4.6 If Blackhorse Junction were to be designed for the current standard such a design, although below the desirable minimum standard, can be accepted as a relaxation from standard for 'extreme cases' as long as the traffic flows are at the lower end of the traffic flow range stated in Table 2.1 of TA 46/97 (Traffic Flow Ranges for Use in the Assessment of New Rural Roads). The current (2003/04) Annual Average Daily Traffic (AADT) flow is approximately 37,000 vehicles per day at this location. Therefore these flows are not considered to be at the lower end of the range.

2.5 M5 Junction 29

2.5.1 Junction 29 is located at the intersection of the M5 and the A30 trunk road. Improvements to the motorway junction were completed in 1999, which now allows for nearly all movements to take place between the M5 and A30. Figure 5 shows a plan of the existing layout of Junction 29.

2.5.2 The missing movement is from Exeter to the M5 South. As development has increased to the west of the M5 and congestion has increased at M5 Junction 30, there is an increased demand for the movement, particularly in the PM peak with traffic exiting from the employment sites having destinations on the A38 and A380 corridors. This movement either takes place by way of a u-turn at Blackhorse Junction or by using M5 Junction 30.

2.5.3 Junction 29 is a signal-controlled junction with the A30 running underneath the mainline motorway. There are signals at the junctions serving the M5 northbound slip roads and the M5 southbound off-slip road. At the M5 southbound offslip junction there are 4 lanes at the stop line from the west, with 2 lanes for traffic travelling from the M5 northbound offslip and 2 lanes for traffic travelling from Exeter.

- 2.5.4 The design of the traffic signals at Junction 29 complies with the guidelines stated in TA 12/81 (Traffic Signals on High Speed Roads). The 40 mph speed limits on the approaches to the junction are below the recommended 85th percentile speed of 65 mph when traffic signals should not be installed.
- 2.5.5 The A30 to the east of Junction 29 was upgraded to dual carriageway standard in late 1999 to connect to the existing Honiton Bypass. The section of Honiton Road to the west between Junction 29 and Moor Lane Roundabout was improved in 2003 to dual carriageway standard by DCC with developer contributions.
- 2.6 Moor Lane Roundabout**
- 2.6.1 To the west of Junction 29 is Honiton Road, a major route towards the city of Exeter. Along Honiton Road, the first major junction is Moor Lane Roundabout. It connects to Ambassador Drive and Moor Lane.
- 2.6.2 The roundabout has undergone major improvements recently to remove the queues on its approaches. These improvements were completed in 2003. The junction is now a signal-controlled roundabout with a dedicated left-turn lane from the east to Moor Lane. The new layout of the roundabout is shown on Figure 7. As a result of the improvement there are no peak hour queues on the A30 westbound approach and the slip roads at M5 Junction 29 generally operate within capacity.
- 2.6.3 Honiton Road is a single carriageway route into Exeter. A new signal junction was also constructed to the west of Moor Lane Roundabout to access the Met Office Headquarters. Further west there are several private accesses and a roundabout at the junction with Wilton Way, all of which limit the capacity of the road.
- 2.6.4 A Public Transport Interchange is located adjacent to Honiton Road. The site has recently been improved and extended. The site has a dedicated access lane from Moor Lane Roundabout and signals on to Honiton Road to allow egress from the site for buses. The proximity of the site to the M5 and A30 trunk roads means that there is potential for the site to form a gateway to Exeter and linkages to additional bus routes in the future.
- 2.6.5 Ambassador Drive is a dual carriageway link to the Exeter Business Park. The size of the business park has increased rapidly in recent years including the construction of the Met Office, Electricité de France (EDF) and the Bevan Ashford office. Recent agreement with the Met Office and EDF have resulted in a series of initiatives to encourage new employers to have travel plans and reduced parking for commuters, which are being rolled out to other employers in the area.
- 2.6.6 An innovative agreement with the EDF development involved the employer stating in their Transport Assessment that there would be a low number of car based trips accessing the building during peak hours. To provide assurance this target would not be broken, the employer agreed to a monitoring of the travel demand and a toll or penalty should the target number of trips be exceeded.
- 2.6.7 Moor Lane Roundabout is seen as a key distribution point for the local road network. It connects to the trunk road network, Sowton Industrial Estate, Exeter Business Park, the Public Transport Interchange and Honiton Road. Honiton Road is heavily trafficked and is at or close to capacity during peak periods. The recent junction improvement provides spare capacity and is designed to accommodate some future development traffic flows when Ambassador Drive is extended through to Pinhoe Road (locally known as the Monkerton Link).

2.6.8 A planning application for the Monkerton Link is being prepared by DCC and is due to be submitted in the near future

2.7 Pedestrians and Cyclists

2.7.1 A pedestrian and cycle route is provided throughout the study area and provides a route between Exeter and Blackhorse. On the approaches to Moor Lane Roundabout, footways are located on both sides of the roads, apart from the Moor Lane approach where the footway is only located on the east side.

2.7.2 Pedestrian crossings are located on the south side of the roundabout and on the western Honiton Road arm, 150 metres from the roundabout.

2.7.3 Between Moor Lane Roundabout and M5 Junction 29, a footway is located on the south side of the carriageway. A pedestrian crossing is provided at the M5 southbound offslip junction where the A30 eastbound stoplines and the M5 southbound stoplines are located. The footway then continues to Blackhorse on the north side of the A30 dual carriageway.

2.8 M5 Junction 30

2.8.1 The trunk road network to the north and east of M5 Junctions 29 to 31 consists of the M5 and the A30/A303 corridor. To the south and west, the trunk road and principal road network consists of the A380 to Torquay and the A38 and A30 corridors to Cornwall. Junctions 29 to 31 of the M5 act as the common intersection point between these routes, connecting roads to the south and west with those to the north and east. Junction 30 lies in the middle of this section of the motorway network. The existing layout is shown in Figure 6.

2.8.2 In addition, Junction 30 forms the main gateway to Exeter and is the only motorway junction providing all-movement access into Exeter. It is also the means of access to the Moto Motorway Service Area (MSA), which is the southern-most service area on the M5.

2.8.3 The junction consists of a conventional two-bridge signal controlled roundabout layout. The roundabout, as shown in Figure 6, connects to three links on the county road network: the A376 Exmouth Road, the A379 Spur Road and Sidmouth Road leading to the Moto MSA.

2.8.4 Observations and analysis of M5 Junction 30 have identified that the existing motorway junction is currently operating at or above capacity, with significant queuing on several approach arms in both the AM and PM peak periods. Of greatest concern for the Highways Agency is the queuing that 'blocks back' on to the running carriageway of the M5, particularly during the AM peak hour from the M5 northbound off-slip. This queue has safety implications for traffic using the motorway as a through-route as well as for those wishing to exit the motorway at that point.

2.8.5 Traffic forecasts indicate that an increasing level of demand will exist to 2011, due in part to development-related trip-end growth and also to background growth in traffic. This growth could therefore be expected to cause further safety concerns over the operation of the motorway in the future.

2.9 Traffic Flow Data

- 2.9.1 The two-way 2002 annual average daily traffic (AADT) flow on the M5 between Junctions 29 and 30 is in the order of 68,000 vehicles, while the average August Saturday flow rises up to 112,000.
- 2.9.2 On the A30 Trunk Road to the east of M5 Junction 29, the two-way 2003/04 AADT flow is around 37,000 vehicles, which rises to 49,000 for the average August flow on a Friday.
- 2.9.3 A summary of the peak hour traffic movements throughout the study area is shown on Figures 8 and 9.

3 ACCESSIBILITY OF SITE BY NON-CAR MODES

3.1 Public Transport

3.1.1 Public transport services to the east of Exeter will require improvements in order to serve the proposed AEA developments. The concept of an Exeter Gateway at the Honiton Road Public Transport Interchange, linked to a series of bus routes both radial and orbital to serve Exeter, has been considered by DCC.

3.1.2 The main element of public transport services that serve the proposed AEA developments will be high quality and frequent bus services. These services will connect the AEA either directly or indirectly to residential and employment areas in Exeter. This will ensure a choice of mode is available for a large proportion of trips from the AEA to the Exeter area. In this context the old A30 road has the potential for a high frequency bus route. In order for this to become an effective scheme, a bus lane will be required for Exeter-bound buses to travel through M5 Junction 29 without delay.

3.1.3 Public transport for Skypark and the IMFT requires the provision of enough capacity to cater for a significant proportion of modal shift. This will include a shared contribution with the East Devon New Community (EDNC) for public transport to the latter. Contributions toward the public transport interchange to the east of Exeter are also required.

3.1.4 Policy ST12 of the existing Structure Plan requires the provision of a new railway station on the Exeter-Waterloo line, as part of the first phase of the EDNC. It is important that good public transport links are provided between this, the new Exeter Airport terminal and Skypark.

3.2 Travel Plans

3.2.1 In order to ensure that the AEA does not rely on the private car for access there is a need for the development sites to produce individual Travel Plans which are complementary to each other. Travel Plans are used to assist individuals and organisations in the promotion of alternative transport modes that are more sustainable than single occupancy private journeys. Reduced traffic congestion, protection of the environment, healthier lifestyles and less social exclusion are just some of the benefits of such plans.

3.2.2 Travel Plans are seen as a valuable part of employee relations and good business planning for employees. Recent travel plans for the Met Office and EDF in the vicinity of M5 Junction 29 have set targets for reduction in single occupancy private car journeys associated with penalties if these targets are not met. It is anticipated that the AEA produces an opportunity for an innovative area-wide travel plan, which is self-financing over the long term. Funding streams could include parking charges, which could in turn provide revenue support for public transport services and infrastructure improvements such as cycle racks, web sites and information systems.

3.2.3 There are lots of actions that can be included in a travel plan for employers and it is unlikely that a single plan will incorporate them all. Travel plans would have to be produced for Skypark, IMFT and Exeter Airport, which set targets and have a mechanism for monitoring and penalties should the targets not be met.

3.2.4 Travel plans for residential developments are less well developed. Key issues that affect trip generation are household occupancy, car availability and opportunities for a choice of travel by an alternative mode. To ensure trip generation from the residential development is low there will be need for a number of measures possibly including car clubs, subsidised public transport and high quality infrastructure for slow modes.

3.2.5 The Highways Authorities will assist in setting up and monitoring the area-wide travel plan. However, the Travel Plan would be established and maintained by the developers and occupiers of the AEA. The monitoring of its success will be by way of an annual Monitoring Report, which will be made available to the Highway Authorities and District Council. An essential element of this report will be progress towards targets and actions for the future.

3.3 Provision of Information

3.3.1 As the planning applications for the AEA sites progress there will be a need for further information and justification of travel plans. It is anticipated that this information will be provided as addendums to the Transport Assessments and Travel Plans to ensure the sustainability of the development.

4 TRIP GENERATION AND DISTRIBUTION FOR DEVELOPMENTS

4.1 Introduction

4.1.1 There are several proposed developments in the Exeter Area of Economic Activity (AEA) as identified in the East Devon Local Plan. It is recognised that the developments will have a significant impact on the local trunk road network. Figure 2 shows the locations of these developments.

4.1.2 It has been considered that the use of the AM peak period will provide sufficient information to reach conclusions relating to development impact. The AM peak is considered to represent the most significant of the two peak periods. Therefore trip rates have only been calculated for the AM peak.

4.1.3 Trip rates have been calculated for each of the AEA developments using various sources of information. The following section summarises the trip generation and distribution for the four major developments.

4.2 Trip Generation - East Devon New Community

4.2.1 Surveys were undertaken at several housing developments in Somerset to derive the trip rates for the ENDC. The process of how these rates were calculated is described in the report East of Exeter Developments Forecasting Report: Preliminary Model Run (Document Reference: HHITN220/701/2/4). The following table summarises the hourly vehicle trips per dwelling generated for the AM peak hour.

Hourly Vehicle Trips Per Dwelling:

	Inbound	Outbound	TOTAL
AM Peak Hour	0.13	0.51	0.64

4.2.2 For the purpose of this assessment, an assumption has been made that 20% of the total trips generated by the residential development will contained internally within the residential development during the AM peak. These trips are in addition to the above trip rates. Taking this factor into account, the inbound trip rate will be 0.10 vehicles per dwelling and the outbound rate will be 0.41.

4.2.3 These new trip rates have been compared to trip rates for mixed private housing from the TRICS 2004 database. The 40th percentile trip rates from TRICS are very close to the calculated rates with the 20% containment factor. Therefore the 40th percentile rates have been used to derive the generated trips. These rates are shown in the following table.

TRICS 40th Percentile Hourly Vehicle Trips Per Dwelling:

	Inbound	Outbound	TOTAL
AM Peak Hour	0.11	0.42	0.53

4.2.4 These rates have been applied to the size of the development to determine the total number of vehicles travelling to and from the EDNC in the AM peak hour. The following table shows the number of trips for the Local Plan proposal of 2900 dwellings.

AM Peak Hour Vehicle Trips:

	Inbound	Outbound	TOTAL
2900 dwellings	319	1218	1537

4.3 Trip Generation - Skypark

4.3.1 Trip rates from the TRICS database have been used to calculate the trip generation of the Skypark development. These trip rates are approximately 40th percentile values to reflect the assumption that traffic generation will be reduced by 20% due to modal switch and travel plans. The following table summarises the vehicle trips per 100 m² generated in the AM peak hour. It is anticipated that the B8 (Storage and Distribution) land use will not feature significantly within Skypark. Therefore it has not been taken into account in the assessment.

TRICS Hourly Vehicle Trips Per 100 m²:

	Code	Inbound	Outbound	TOTAL
Office employment	B1	1.64	0.20	1.84
Industrial estate employment	B2	0.91	0.15	1.06

4.3.2 These rates have been applied to the size of the development to determine the total number of vehicles travelling to and from the Skypark development in the AM peak hour. It has been assumed that the B1 land uses will account for 60% of the area and the B2 land uses will account for 40%.

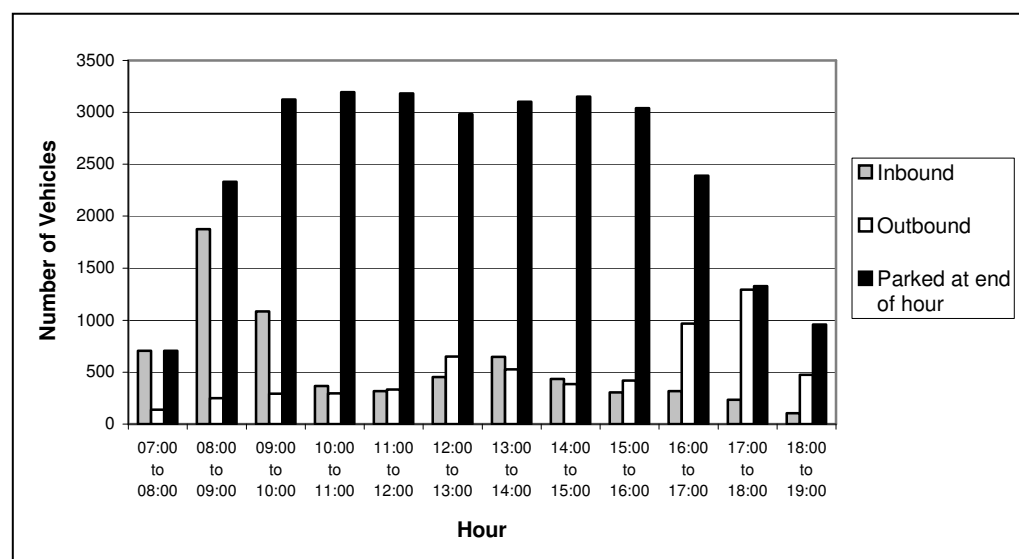
4.3.3 The gross floor area for the Local Plan allocation of Skypark has been assumed to be 110,000 m². For the Structure Plan requirement, the gross floor area has been assumed to be 140,000 m².

4.3.4 The following table shows the number of trips for the 110,000 m² scenario and the 140,000 m² scenario.

AM Peak Hour Vehicle Trips:

	Inbound	Outbound	TOTAL
110,000 m ² GFA	1483	198	1681
140,000 m ² GFA	1871	250	2121

4.3.5 An assessment has been made to determine the number of parking spaces that are required at the Skypark development. The graph below shows the predicted parking accumulation at the Skypark on a weekday. This has been calculated with the worst-case scenario of 140,000 m² gross floor area.



4.3.6 It can be seen that the maximum number of parked vehicles will be approximately 3200. This is equivalent to a parking ratio of one space per 44 m² for the combination of B1 and B2 developments tested. Which is approximately a 20% reduction on the levels of parking provision identified in the RDLP Policy TA8 which, where possible, agree with PPG13.

4.3.7 It is recognised that at this stage the parking analysis is of a preliminary nature. However, it has been confirmed that these levels of parking may be achievable in the long term. The Transport Assessments will identify an appropriate mechanism for achieving them. It must be recognised that the constraint of car parking at an early stage is important for achieving the modal split assumptions.

4.4 Trip Generation - Exeter Airport

4.4.1 It was agreed with Devon County Council that the trip generation for the new Exeter Airport terminal would be approximately 200 vehicles in each direction in the AM peak hour following the completion of the development.

4.4.2 The following table shows the number of hourly trips expected for 2 million passengers per annum that was used for the purpose of this assessment. This assessment is based on data collection carried out at the Exeter, Bristol and Southampton airports.

AM Peak Hour Vehicle Trips:

	Inbound	Outbound	TOTAL
2016 Airport	200	200	400

4.5 Trip Generation - Inter-Modal Freight Terminal

4.5.1 The following table summarises the hourly vehicle trips per 100 m² generated by the IMFT in the AM peak hour. Details of how these rates were derived are described in the report East of Exeter Developments Forecasting Report: Preliminary Model Run (Document Reference: HHITN220/701/2/4).

Hourly Vehicle Trips Per 100 m²:

	Inbound	Outbound	TOTAL
AM Peak Hour	0.25	0.10	0.35

4.5.2 These rates have been applied to the size of the development to determine the total number of vehicles travelling to and from the IMFT in the AM peak hour. The following table shows the number of trips expected for the 152,725 m² of development. The travel plan would undertake a parking accumulation exercise and would be likely to estimate a 20% reduction in parking requirements in line with the other employment developments.

	Inbound	Outbound	TOTAL
2016 IMFT	382	152	534

4.6 Trip Distribution

4.6.1 The following table summarises the distributions for each of the developments in the AM peak hour to the major origins/destinations in the area. The distributions represent the Local Plan applications.

	EDNC	Skypark	Airport	IMFT
M5 North of J29	5%	8%	7%	10%
M5 South of J30	18%	24%	21%	24%
A30 East of Exeter Airport	7%	8%	3%	15%
Old A30 (Rockbeare)	2%	2%	6%	2%
Broadclyst	6%	6%	6%	2%
A376 (East of J30)	5%	6%	5%	5%
Exeter via J30	13%	10%	11%	8%
Honiton Road (West of J29)	28%	26%	27%	27%
Internal AEA Developments	11%	9%	8%	6%
Other	5%	1%	6%	1%
TOTAL	100%	100%	100%	100%

4.6.2 The table shows that the most prominent origins/destinations for the developments are the M5 to the south of Junction 30 and Honiton Road to the west of Junction 29.

4.6.3 The trip distribution methodology was identified in a joint study with the developers and reported in the East of Exeter Developments Forecasting Report: Preliminary Model Run (Document Reference: HHITN220/701/2/4). This document was agreed by Highway Authorities and made available to the developers at the time.

4.7 Background Traffic Growth

4.7.1 The developments have been assessed for a design year of 2016 and the relevant background traffic growth factor has been applied. This year was chosen (in 2001) as it is the year described in the emerging Devon Structure Plan. At that time (2001) it also fell between the Devon County Council requirement of 2011 and the Highways Agency requirement of 2021-26. The Department for Transport (DfT) Circular 04/2001 identifies in paragraph 17 that the assessment year should be 15 years after the development opens. There may be a need to reassess the background growth in the Transport Assessment addendums.

4.7.2 To enable the production of the Transport Assessments, traffic flows on each link of the network can be provided. This would identify the level of traffic from each development together with the local background traffic flows.

4.7.3 The assessment makes the assumption that all the development will be complete within the Local Plan period. Any development that is rolled over to the next plan period or is considered as part of the emerging Structure Plan would need to be accompanied by a further analysis with an appropriate design year and relevant background traffic growth between 2026-2031. Recent guidance from HA Headquarters identifies that any deviation from this would have to be secured by a Departure.

5 PHASE 1 - EAST DEVON LOCAL PLAN PROPOSALS

5.1 General

5.1.1 Proposals AEA 1-5 in the East Devon Local Plan identify the four developments in the AEA, as well as the proposed Clyst Honiton Eastern Bypass (CHBP) and other transport works.

5.1.2 The partnership approach progressed by the Key Stakeholders has developed an assessment methodology. As part of this process a provisional (not exhaustive) list of infrastructure requirements associated with the developments has been established as shown below:

DRAFT PHASE 1 TRANSPORT INFRASTRUCTURE REQUIREMENTS	
High Quality Public Transport Services:	
Internal service - residential and commercial areas	
Local service to interchange from AEA developments	
A series of direct and indirect services to the main residential and employment areas	
Rail Improvements:	
New Station	
Points and motorised signals	
Highway Improvements:	
Clyst Honiton Bypass	
A30 Exeter Airport junction improvements	
Green travel improvements including measures along old A30	
Bus lane through Junction 29	
Moor Lane and Junction 29 improvements	
Cycle improvements (possible bridge)	
Contributions Towards:	
Honiton Road gateway public transport interchange	
Ambassador Way extension, Monkerton Link	
M5 Junction 30 improvements	
Note: This list is not exhaustive, and could be subject to modifications of items during the detailed approval of the Transport Assessment Addendums	

5.1.3 Although not specified it has been assumed that, in the first instance at least, the CHBP will be single carriageway standard and will be connected to the existing A30 Exeter Airport Junction with the minimum of works. It is assumed that the CHBP would connect through to the old A30 road, providing a strategic connection to the developments. The drawing shown on Figure 10 is a schematic layout of the CHBP.

5.1.4 Therefore taking the CHBP as shown in Figure 10, it is necessary to identify the level of development that can take place (Phase 1) and how this would affect the other junctions in the AEA. The level of development will be controlled by the layout of the local transport network in the area and the main local constraints that include the following:

- I. Take account of the implications of the Airport Public Safety Zones
- II. Ensure the A30 Exeter Airport Junction does not go over capacity
- III. Limit the use of the old A30 in its current form and maximise its potential as a public transport route
- IV. Understand the implications on the operation of M5 Junctions 29 & 30 and Moor Lane Roundabout (and Monkerton link)

5.2 Traffic Analysis

5.2.1 Taking into account the constraints mentioned above, an assessment has been carried out to ascertain the level of development that can be accommodated at the A30 Exeter Airport Junction with minor modifications and the construction of the CHBP. The results of this analysis predicted that the following levels of development can be accommodated, which equate to approximately 70% of the major current applications (i.e. 2900 houses and 110,000 m² of employment):

- 2,200 houses in the East Devon New Community.
- 70,000 m² of employment at Skypark. The 70,000 m² is based on a B1/B2 mix of 60:40. This gives a threshold of traffic, which could be converted into an equivalent range of development mix as appropriate.
- In addition it has been assumed that the new Exeter Airport Terminal will be fully built and catering for approximately 1.21 million passengers per year by 2011 (assuming linear growth from passenger predictions).
- 100% of IMFT Phase 1. The application for IMFT is Phase 1 which is 50% of its total development proposal.

5.2.2 This level of development has been assumed to be Phase 1. The predicted traffic flows around the study area in the AM peak hour with the proposed Phase 1 developments in place are shown in Figure 11.

5.2.3 It has been considered that the use of the AM peak period will provide sufficient information to reach conclusions relating to development impact. The AM peak is considered to represent the most significant of the two peak periods. It is recognised, however, that further work may be required at a later date in order to establish the PM peak pattern of congestion for detailed junction design. For the purpose of this assessment, the PM peak has been taken as the reverse of the AM.

5.3 A30 Exeter Airport Junction

5.3.1 The proposed layout of the A30 Exeter Airport Junction is identified in Figure 12. The changes from the existing layout are the connection of the CHBP to the north and the closure of the existing arm to Clyst Honiton. There will be improvements to the movement from the A30 eastbound offslip to the CHBP by way of the construction of a dedicated left turn slip.

5.3.2 Traffic accessing the industrial area at the location of the existing Exeter Airport site on the B3184 will be able to use the existing junction layout to gain access and egress. The future year traffic projections do not include any significant increase in traffic from the industrial area, which has expanded recently and is using up the spare capacity in the network. Any future expansion in this area will need to comply with this phasing strategy.

5.3.3 One of the controlling elements in terms of the capacity of the existing layout is the size of the roundabout to the south of the A30. The geometric layout of this roundabout determines the ultimate capacity of the junction and the volume of traffic travelling over the bridge. Hence, the number of vehicles turning right on to the A30 to travel towards Exeter has been limited to 1000 vehicles in the peak hours to ensure the junction operates within capacity. Various alternatives to the existing roundabout layout have been investigated, but no design has been identified that clearly demonstrates any additional capacity is available at this junction within the existing highway boundary.

5.3.4 The operation of the two roundabouts at the A30 Exeter Airport Junction with the Phase 1 developments in place has been assessed using the roundabout capacity program ARCADY 5. The following tables summarise the results for the AM and PM peaks at 2016 background traffic levels.

5.3.5 North Roundabout

AM Peak with Phase 1 Developments:

	RFC	Queue
A30 Eastbound Offslip	77%	3
Clyst Honiton Bypass	89%	7
B3184 Airport	33%	1
From South Roundabout	24%	0

PM Peak with Phase 1 Developments:

	RFC	Queue
A30 Eastbound Offslip	58%	1
Clyst Honiton Bypass	77%	3
B3184 Airport	82%	4
From South Roundabout	5%	0

5.3.6 South Roundabout

AM Peak with Phase 1 Developments:

	RFC	Queue
Bishops Court Lane	0%	0
From North Roundabout	87%	6
A30 Westbound Offslip	41%	1

PM Peak with Phase 1 Developments:

	RFC	Queue
Bishops Court Lane	0%	0
From North Roundabout	94%	12
A30 Westbound Offslip	8%	0

5.3.7 ARCADY has been used to analyse the operation of the southern roundabout. It is recognised that traffic approaching from the North Roundabout is very unlikely to encounter any opposing flow. This gives some comfort that in practice there may be slightly more capacity available than the ARCADY analysis shows.

5.3.8 The proposals shown in Figures 10 and 12 have a relatively large amount of capacity capable of accommodating a significant amount (approximately 70%) of the proposed AEA developments.

5.3.9 There is also a balance between the need to build a single carriageway Clyst Honiton Bypass and making best use of the A30 Exeter Airport Junction, which is known to have spare capacity. It is considered that major improvements to dual the CHBP and provide a complementary improvement to the Airport Junction would be considered over-provision for Phase 1.

5.3.10 In addition there is a balance between the major traffic generating developments. The EDNC will mainly generate traffic in the AM peak travelling in the outbound direction, whereas Skypark will generate traffic in the AM peak travelling in the inbound direction. Consequently by limiting both developments it is possible to achieve a situation where the junctions operate within capacity. On the other hand, it is not possible to increase one development in size and reduce another or swap traffic flows between the two major developments as these flows are travelling in opposite directions and could have an adverse impact on the operation of the network and the capacity of the junctions.

5.4 Airport Public Safety Zones

- 5.4.1 The Department for Transport (DfT) Circular 1/2002 (Control of Development in Airport Public Safety Zones) identifies various levels of risk and measures to be taken to mitigate the risk of death or injury in the event of an aircraft accident on take off or landing. Figure 10 shows the two risk contour areas. In the highest risk area (1:10,000 CAA assessment), the CHBP is proposed to go through a tunnel. The tunnel will be approximately 100 metres long and the standard of the carriageway will be a 7.3 metre wide two-way single carriageway road.
- 5.4.2 For the section of CHBP passing through the lower risk area (1:100,000 LPA assessment), consideration has been given to paragraph 19 of the circular entitled Transport Infrastructure. The paragraph states that "careful attention should be given to the number of major road junctions and to related features such as traffic lights and roundabouts which may lead to an increase in the number of stationary vehicles within a zone."
- 5.4.3 Since the CHBP is not a motorway or anything similar to it, it is not prohibited from operating within the lower risk area of the public safety zone. The junctions at either end of the road have been analysed and are predicted to operate within capacity with Phase 1 of the developments. Therefore there would be a limited number of stationary vehicles for a short period of time in the public safety zone. This complies with the requirements of paragraph 19 in the DfT circular.
- 5.4.4 In order to further mitigate the likely impact of any congestion, the junction where Skypark connects with the CHBP will be signalised in order to manage any surges in demand, which could have an impact on the roundabout on the northern side of the A30 Exeter Airport Junction. There will be a series of loop detectors, which will control the amount of traffic accessing the CHBP within the public safety zone and ensure that the traffic runs smoothly and does not queue on the approach to the roundabout. The final layout of this junction will be considered in detail during the design process of the CHBP together with a Road Safety Audit.

5.5 Blackhorse Junction

- 5.5.1 The Blackhorse Junction was originally designed to the superseded Department of Transport standard TD 22/86 in order to accommodate the access of local traffic on to the trunk road. It is located between the A30 Exeter Airport Junction and M5 Junction 29. The distance between the Blackhorse Junction slip roads and M5 Junction 29 is approximately 600 metres in both directions.
- 5.5.2 The current DMRB standard TD 22/92 (Layout of Grade Separated Junctions) states that the desirable minimum for the distance between junctions on all-purpose rural roads is 1 kilometre, as described in paragraph 2.4.5 of this report.
- 5.5.3 If Blackhorse Junction were to be designed for the current standard such a design, although below the desirable minimum standard, can be accepted as a relaxation from standard for 'extreme cases' as long as the traffic flows are at the lower end of the traffic flow range stated in Table 2.1 of TA 46/97 (Traffic Flow Ranges for Use in the Assessment of New Rural Roads). The current (2003/04) Annual Average Daily Traffic (AADT) flow is approximately 37,000 vehicles per day at this location. Therefore these flows are not considered to be at the lower end of the range.

5.5.4 Therefore in order to ensure that traffic flows on the slip roads at the Blackhorse Junction do not increase in Phase 1 of the developments, a signalised junction will be constructed where the old A30 connects with the CHBP. The layout of this junction and the settings of the traffic signals will control the volume of traffic to existing levels on the old A30 and Blackhorse Junction. There may be a need for further measures on the old A30 to accommodate a public transport route and/or reduce speeds to assist in controlling traffic to existing levels.

5.6 M5 Junction 29

5.6.1 Figure 13 shows possible changes to the layout of Junction 29. This would include the incorporation of a bus lane on the A30 in a westbound direction. In addition to the bus lane there may be a need to review the operation of Junction 29 with the additional development traffic. The DfT Circular 4/2001 states in paragraph 3 that the HA will wish to ensure that the junction will “cater safely and efficiently for the anticipated traffic levels”.

5.6.2 The modification that will be needed at this junction would be the introduction of a bus lane beside the A30 in a westbound direction under the M5. This would give buses additional priority on the approach to Moor Lane Roundabout should queuing occur for short periods during peak hours. A design for this has been carried out by the Connect Consortium, who are the Design Build Finance Operator for the A30 trunk road in Devon, in conjunction with the Skypark consultants.

5.6.3 The layout in Figure 13 has been analysed and assessed using the traffic signal program TRANSYT 11. The following tables summarise the results for the AM and PM peaks with Phase 1 at 2016 background traffic growth.

AM Peak with Phase 1 Developments:

Approach	Degree of Saturation	Mean Max Queue (pcus)
A30 (From East)	51%	6
Honiton Road (From West)	73%	9
M5 Northbound Offslip (To Exeter)	88%	11
M5 Northbound Offslip (To A30 East)	45%	9
M5 Southbound Offslip (To Exeter)	57%	7
M5 Southbound Offslip (To A30 East)	43%	3

PM Peak with Phase 1 Developments:

Approach	Degree of Saturation	Mean Max Queue (pcus)
A30 (From East)	48%	5
Honiton Road (From West)	84%	13
M5 Northbound Offslip (To Exeter)	33%	2
M5 Northbound Offslip (To A30 East)	48%	10
M5 Southbound Offslip (To Exeter)	20%	2
M5 Southbound Offslip (To A30 East)	20%	1

5.6.4 It can be seen that the layout of Junction 29 will operate within capacity with no approaches over the 90% threshold degree of saturation.

5.7 Moor Lane Roundabout

5.7.1 The Moor Lane Roundabout improvement was completed in 2003 and has resulted in the removal of the majority of delays that previously occurred at the junction and tailed back to M5 Junction 29.

5.7.2 There is a current proposal for the construction of the Monkerton Link connecting Moor Lane Roundabout, via Ambassador Way, to Pinhoe Road. The Monkerton Link would provide additional exit capacity for Moor Lane Roundabout to allow traffic entering the junction from Sowton Industrial Estate and the A30 East to have an alternative route into parts of Exeter. In analysing the junction in the future situation with the AEA developments in place, it has been assumed the Monkerton Link has been built but the current layout of the Moor Lane Roundabout is unaltered.

5.7.3 An assessment has been carried out using TRANSYT 11 and the results for the AM and PM peaks is summarised in the following tables with Phase 1 at 2016 background traffic growth.

AM Peak with Phase 1 Developments:

Approach	Degree of Saturation	Mean Max Queue (pcus)
Honiton Road (From West)	94%	21
Honiton Road (From East)	74%	12
Ambassador Drive	86%	12
Moor Lane	86%	7

PM Peak with Phase 1 Developments:

Approach	Degree of Saturation	Mean Max Queue (pcus)
Honiton Road (From West)	98%	28
Honiton Road (From East)	75%	12
Ambassador Drive	101%	28
Moor Lane	93%	15

5.7.4 This shows that in the AM peak the junction is operating at capacity although the arm with the lowest level of degree of saturation is the trunk road approach from the east. In the PM peak the junction is also operating at capacity but the approach where the over capacity occurs is from Ambassador Drive. The trunk road approach from the east is operating within capacity.

5.7.5 An assessment has been carried out to check the operation of Moor Lane Roundabout without the Monkerton Link in place. Following the completion of the Phase 1 developments, it is predicted that in the AM peak hour the roundabout will still be operating at capacity and the trunk road approach from the east will be running without any capacity problems. However, in the PM peak hour it is predicted that the volume of traffic exiting the roundabout on the Honiton Road (West) arm will be more than 1800 vehicles. This will cause the exit to go over capacity and will result in exit blocking on to the circulatory carriageway, which would seriously deteriorate the operation of the junction. Therefore it is imperative that the Monkerton Link is implemented as soon as possible.

5.8 M5 Junction 30

- 5.8.1 A study of M5 Junction 30 has identified a series of measures which would ensure that the forecast levels of growth could be accommodated in future years without the junction going significantly over capacity. These measures, which integrate together to form the recommended scheme option (see Figure 14), provide additional capacity while aligning with current national and local highways policies and anticipate that every effort will be made to ensure opportunities to encourage the use of sustainable modes.
- 5.8.2 The improvements to M5 Junction 30 are designed to mitigate the impact of a variety of developments and background traffic growth. However, it can be seen from the trip distribution table that the AEA developments generate additional traffic at Junction 30. To mitigate the effects of this traffic, the developments will be expected to make a contribution to the cost of the improvements identified in Figure 14.
- 5.8.3 The proposed improvements to M5 Junction 30, together with improvements to the junction which provides access to the MSA, Sowton industrial estate and Sidmouth Road, are not able to accommodate an unrestrained increased demand. Measures to reduce the high right-turn movement from Sowton Industrial Estate to the M5 South by way of alterations to Junction 29 would assist the operation of Junction 30.

5.9 Enabling Development

- 5.9.1 The analysis undertaken identifies that additional traffic cannot be accommodated at the Blackhorse Junction other than normal traffic growth. This is the preferred position of the HA. However, there are circumstances where it may be possible for the HA to consider additional traffic using the junction for a short period of time.
- 5.9.2 Consideration has been given to a level of enabling development while the CHBP (Proposal AEA 5) is being designed and constructed. The enabling development would assist the developer in terms of allowing some housing or employment units to be constructed before the CHBP was open. This would overcome the requirements in Circular 04/2001 that "Conditions will generally take the form of a requirement that the highway works be completed before work on the development can begin" (Paragraph 16). There may be the need for additional low cost measures to mitigate the impact of additional traffic flows.
- 5.9.3 The enabling development would only be allowed if sufficient confidence were given to the HA that the CHBP was certain of being constructed and suitable conditions would need to be derived.
- 5.9.4 The level of enabling development would equate to the early build rates of the developments and the design and construction period for CHBP, likely to be between 1 and 2 years.

5.10 Summary

- 5.10.1 The Local Plan identifies the Clyst Honiton Bypass and other transport works in proposal AEA5. This link together with minor alterations to the existing layout of the A30 Exeter Airport Junction could accommodate approximately 70% of the current Local Plan allocations of the major traffic generating developments (East Devon New Community, Skypark) and elements of the IMFT and Airport development.

- 5.10.2 Measures would have to be put in place including signalised junctions on the old A30, signing and intelligent transport systems to ensure that the Blackhorse Junction would continue to carry flows at the lower end of the range stated in TA 46/97 (Traffic Flow Ranges for Use in the Assessment of New Rural Roads), and that no queuing occurs in the Airport Public Safety Zone.
- 5.10.3 An assessment has been carried out at M5 Junction 29 and Moor Lane Roundabout when Phase 1 of the AEA developments will be complete. Junction 29 will be operating within capacity and Moor Lane Roundabout will operate at capacity. Both junctions are unlikely to cause congestion on the trunk road network or have any detrimental effects on the M5 slip roads.
- 5.10.4 M5 Junction 30 currently experiences congestion during peak periods. Measures have been identified to provide additional capacity to mitigate the traffic impact of the proposed developments and background traffic growth. It is anticipated that the AEA developments will contribute to the cost of the provision of these measures.
- 5.10.5 Moor Lane Roundabout is a distribution node on the network allowing traffic to access and egress from a number of directions. The provision of the Monkerton Link connection from the roundabout to Pinhoe Road provides additional entry and exit capacity with an additional route for traffic to travel into and out of Exeter. Without the Monkerton Link and with the Phase 1 developments in place there would be additional pressure on Honiton Road to the west, which is predicted to go over capacity and cause exit blocking which would have a negative impact on the operation of Moor Lane Roundabout.
- 5.10.6 In order to assist the delivery of the development and allow some construction prior to the implementations of the CHBP, the HA are prepared to allow some enabling development to take place and gain access to the A30 trunk road via the Blackhorse junction.

6 PHASE 2 - OPTIONS

6.1 General

6.1.1 An assessment of the capacity of the Clyst Honiton Bypass (CHBP) and its connection to the existing A30 Exeter Airport Junction has identified that approximately 70% of the major development sites described in the East Devon Local Plan (Skypark, EDNC) can be accommodated. This is considered to be Phase 1 of the AEA developments.

6.1.2 In order to accommodate the extra 30% and additional developments in the emerging Structure Plan, additional infrastructure will be required and various options have been identified.

6.1.3 In addition to the requirements for further transport infrastructure, consideration has been given to the development of the Local Plan. In particular, paragraph 12.2 states that the main proposal is that there will be a requirement for 2900 dwellings at the EDNC. The 2016 emerging Devon Structure Plan states that it is expected that the level of development will increase to 3000+ dwellings by 2016.

6.1.4 Furthermore there is likely to be some flexibility in the growth of the new Exeter Airport terminal and the IMFT depending on economic and transport conditions that prevail during the development of the Local Plan. A further issue that would have to be considered is the identification in the emerging Structure Plan of a possible Science Park, as identified in proposal ST19 and in the Key Diagram.

6.1.5 In considering various options for improvements to the transport infrastructure, it is not possible at the current time to envisage all the issues and constraints that would be in place when additional transport infrastructure is required. Therefore at this stage it is appropriate to identify three further options for improvement, which could be developed in line with the emerging land use pattern and transport requirements that prevail at the time.

6.1.6 Figure 15 identifies the following three options.

- Improvements to Exeter Airport Junction which will allow the whole of the developments to access the trunk road network at a single location
- Improvements to Blackhorse Junction which will make greater use of the old A30 as an alternative access for the developments
- Improvements to M5 Junction 29 which will make greater use of the old A30 as an alternative access for the developments

6.2 Option 1 - Improvements to the Clyst Honiton Bypass and A30 Exeter Airport Junction

6.2.1 In order to create more capacity at the A30 Exeter Airport Junction, a possible improvement could include constructing an additional bridge over the A30 and new slip roads to and from the A30 East to form a grade separated roundabout junction. In order to make use of the additional capacity, the CHBP would have to be improved to dual carriageway standard to ensure that the balance with link and junction capacity is maintained. The B3184 link to the existing industrial estate would remain and connect to the new junction.

6.3 Option 2 - Blackhorse Junction

6.3.1 Improvements could be made in the vicinity of the existing Blackhorse Junction, which will make greater use of the old A30 to provide additional capacity for accessing the developments. In addition improvements would be made to the old A30 and its connections to provide enhanced facilities for buses and slow modes.

6.3.2 Improvements to Blackhorse Junction could take the form of a new upgraded junction on the A30 trunk road. Such a scheme would need to provide benefits to the operation of the trunk road and is likely to require third party land.

6.3.3 It is considered that there are likely to be problems with the implementation of such a junction due to the topographical constraints. There will also be a need to ensure that the junction does not have a detrimental impact on the safety and capacity of the trunk road network. There are options at this location but there may be difficulties in providing a layout that fulfils the design standards and criteria of the Highways Agency.

6.4 Option 3 - M5 Junction 29

6.4.1 There is an option to provide an alternative connection between the M5 Junction 29 and the old A30 to access the AEA developments. This would require the developers to provide alterations to the layout of Junction 29.

6.4.2 The DMRB design standard TA 86/03 (Layout of Large Signal Controlled Junctions) identifies the concept of a composite signal control junction. A design of such a junction at this location should have the following features:

- Additional connection to the old A30 road
- Provision of the right turn facility from Exeter to the M5 South
- Removal of the Blackhorse Junction and the weaving sections on the A30 to the east of Junction 29
- Facilities to enhance bus priority and green travel on the old A30

6.4.3 It is recognised that the introduction of such a composite signal control junction would introduce additional traffic signals for all movements, would reduce the length of the M5 southbound offslip and would require an innovative design. It is considered that this option will make best use of the available infrastructure and address most of the existing issues that currently prevail.

7 CONCLUSION

- 7.1.1 The Devon County Structure Plan and the Revised Deposit East Devon Local Plan (RDLP) identify the New Community and Exeter Area of Economic Activity (AEA) situated adjacent to the A30 trunk road to the east of Exeter.
- 7.1.2 The four proposals for development identified on the RDLP are:
- AEA1 New Community – 2900 houses
 - AEA2 Inter-Modal Freight Facility
 - AEA3 Strategic Employment Land at Skypark – 25 hectares
 - AEA4 Development at Exeter Airport
- 7.1.3 In addition the emerging Structure Plan, to 2016, identifies in the Key Diagram
- New Community - 3000+ dwellings
 - Skypark - 30 hectares
 - Inter-Modal Freight Facility – 65 hectares
 - Exeter Airport Improvements
 - Science Park – 25 hectares
- 7.1.4 In order to identify the transport infrastructure necessary to accommodate the proposed and emerging developments in the AEA, DCC and the HA have been working with the key stakeholders and the developers to undertake the transport assessment and identify a Phase 1 Access Strategy and Options for Phase 2.
- 7.1.5 The Phase 1 would allow approximately 70% of the total AEA developments to take place and makes the best use of the available infrastructure. The main access to the AEA developments is off the A30 at Exeter Airport junction by way of the Clyst Honiton Bypass, Proposal AEA5 in the RDLP. Only minor improvements would be needed to the A30 Exeter Airport Junction.
- 7.1.6 Phase 1 would also require a range of measures to reduce the dependence on single occupancy car based traffic. This would include the delivery of, or contributions to, a series of improvements to the public and private transport infrastructure.
- 7.1.7 Phase 2 would accommodate the remaining 30% of the AEA developments in the RDLP plus the emerging Structure Plan developments. Three options have been identified as follows:
- Improvements to Exeter Airport Junction which will allow the whole of the developments to access the trunk road network at a single location
 - Improvements to Blackhorse Junction which will make greater use of the old A30 as an alternative access for the developments
 - Improvements to M5 Junction 29 which will make greater use of the old A30 as an alternative access for the developments
- 7.1.8 The Phase 1 Access Strategy and Options for Phase 2 has been agreed by all key stakeholders and provides support to Stage 1 of the Revised Deposit Local Plan Inquiry when the AEA developments will be considered.

FIGURES

APPENDIX 5

It can be seen that Junction 29 should operate within capacity in the peak hours of 2026 with the highest degree of saturation at 90%.

A30 Exeter Airport Junction

The layout of the A30 Exeter Airport Junction shown in Figure 12 of the Access Strategy document has been assessed using ARCADY 5 to determine its operation in 2026 with Phase 1 development levels. The following four tables show the results for the AM and PM peak hours for both of the roundabouts at this junction.

North Roundabout:

2026 AM Peak with Phase 1 Developments:

Approach	RFC	Queue
A30 Eastbound Offslip	79%	4
Clyst Honiton Bypass	91%	9
B3184 Airport	36%	1
From South Roundabout	24%	0

2026 PM Peak with Phase 1 Developments:

Approach	RFC	Queue
A30 Eastbound Offslip	58%	1
Clyst Honiton Bypass	78%	3
B3184 Airport	86%	6
From South Roundabout	5%	0

South Roundabout:

2026 AM Peak with Phase 1 Developments:

Approach	RFC	Queue
Bishops Court Lane	0%	0
From North Roundabout	89%	7
A30 Westbound Offslip	44%	1

2026 PM Peak with Phase 1 Developments:

Approach	RFC	Queue
Bishops Court Lane	0%	0
From North Roundabout	96%	16
A30 Westbound Offslip	9%	0

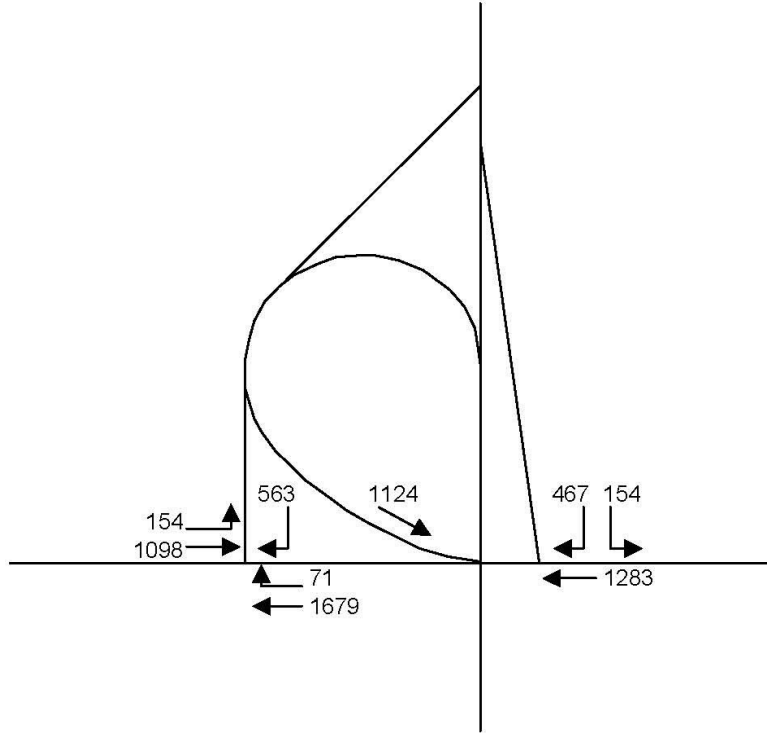
The results for the A30 Exeter Airport Junction show that the north roundabout will generally operate within capacity apart from the Clyst Honiton Bypass approach in the AM peak where it will be approaching capacity with an RFC value of 91%. The maximum queue on this approach in the AM peak is predicted to be 9 vehicles long. This will be longer than 30 metres, which is the maximum length of the queue before it goes into the Airport Public Safety Zone.

The south roundabout should operate within capacity in the AM peak hour, but in the PM peak hour it will be close to capacity with an RFC value of 96% on the northern approach. The maximum queue in the PM peak on the northern approach is predicted to be 16 vehicles long. This is not long enough to block back to the north roundabout.

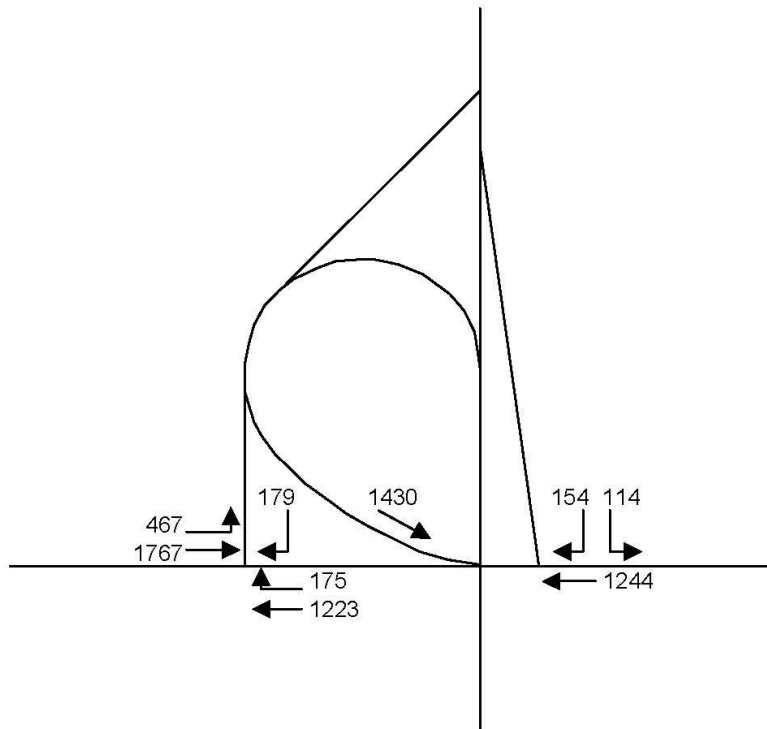
In conclusion, the A30 Exeter Airport Junction will not operate over capacity in 2026 with the development levels at Phase 1.

Figures

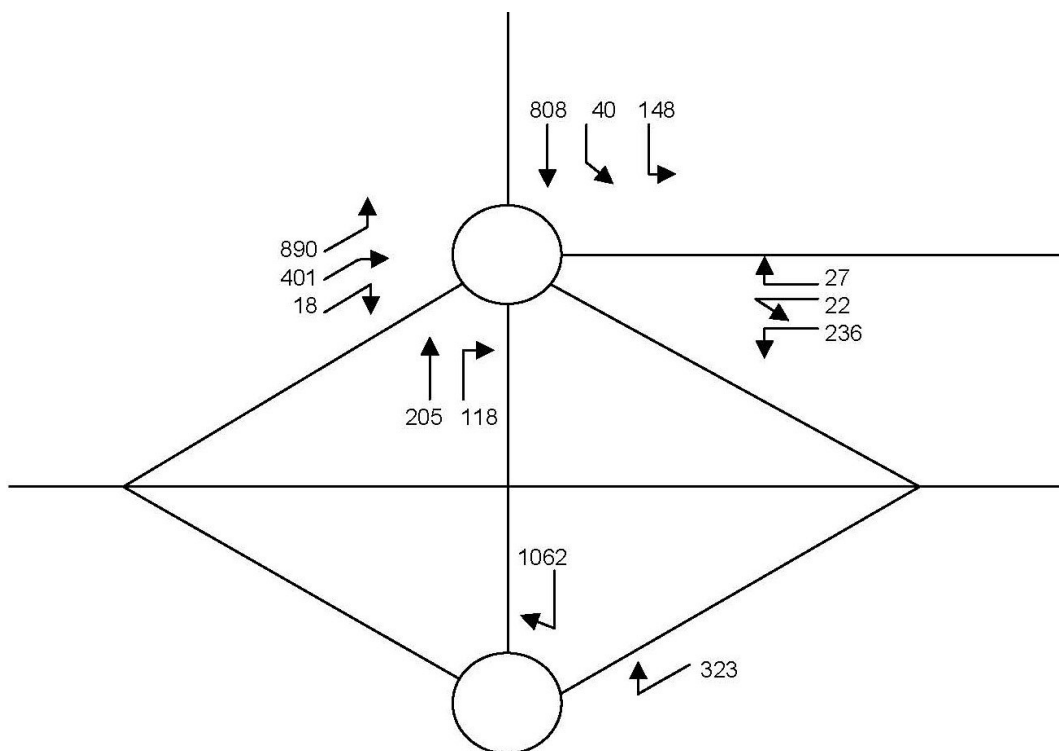
M5 Junction 29 - 2026 AM Peak Hour Turning Movements:



M5 Junction 29 - 2026 PM Peak Hour Turning Movements:



A30 Exeter Airport Junction - 2026 AM Peak Hour Turning Movements:



A30 Exeter Airport Junction - 2026 PM Peak Hour Turning Movements:

