

**ACCESS APPRAISAL AND STRATEGY**

**FOR**

**RESIDENTIAL DEVELOPMENT**

**AT**

**COLEBROOKE LANE, CULLOMPTON**

**Jubb Consulting Engineers Limited**  
Alexander House  
Excelsior Road  
Western Avenue  
Cardiff  
CF14 3AT

Tel: 029 2052 4444  
Fax: 029 2052 4445  
E-Mail: [cardiff@jubb.uk.com](mailto:cardiff@jubb.uk.com)  
WWW: [www.jubb.uk.com](http://www.jubb.uk.com)



**REPORT CONTROL SHEET**

**Project:** Colebrooke Lane, Cullompton  
**Job No:** C9841  
**Client/Applicant:** David Christian C/o Genesis Town Planning  
**Title:** Access Appraisal and Strategy  
**Report Ref:** Rep01  
**Prepared by:** S. Radford  
BE (Hons), MSc  
**Reviewed by:** M. Hadley  
BSc (Hons), DipTP, MBA, MRTPI  
**Authorised by:** M. Tulloch  
BEng (Hons), CEng, MIStructE

<b>Version</b>	<b>Detail</b>	<b>Author</b>	<b>Checked</b>	<b>Approved</b>
A	Draft	SR Jun '13	MH Jun '13	MT Jun '13
B	Final	SR Jun '13	MH Jun '13	MT Jun '13

**CONTENTS**

1.0	Introduction
2.0	Site Assessment
3.0	Existing Highway Network
4.0	Development Proposal
5.0	Establishment of Development Impact
6.0	Framework Travel Plan
7.0	Conclusion

**FIGURES**

Figure 1	Site Location
Figure 2	Air Quality Action Plan – Eastern Relief Road
Figure 3	Local Movements Plan
Figure 4	Local Paths in Cullompton
Figure 5	Local Bus Routes and Bus Stops
Figure 6	Regional Railway Services
Figure 7	Local and Strategic Highways in Cullompton
Figure 8	Baseline Traffic Condition
Figure 9	2011 Census Ward Boundary
Figure 10	Development Traffic
Figure 11	Locations of Committed Developments
Figure 12	Future Year Base Flow

**APPENDIX A**

Appendix A	Concept Master Plan
Appendix B	LDP Allocation Plan
Appendix C	Public Transport Information
Appendix D	ARCADY Results for Swallow Way/Exeter Road Roundabout
Appendix E	PICADY Results for Exeter Road/Colebrooke Lane (East) T-Junction
Appendix F	Concept Highway Access

## 1.0 INTRODUCTION

- 1.1 Jubb Consulting Engineers Limited (JCEL) have been commissioned as Transport Consultant to advise on the transportation and highway issues associated with the feasibility of a potential residential development located either side of Colebrooke Lane on the southwest periphery of Cullompton. JCEL are experienced practitioners in this field and have undertaken a wide variety of assessments on behalf of both public and private sector clients.
- 1.2 The application site, known as Colebrooke Lane, occupies a Greenfield site of approximately 23 hectares. It is located in a semi suburban setting bounded by low intensity farmland to the southeast and existing residential properties to the north and east. A Site Location Plan is shown in **Figure 1** below, with a more detailed Site Boundary Plan included in **Appendix A**.



Figure 1 Site Location Plan

- 1.3 The proposed development could see the provision of up to 900 housing units in a mix of apartments and houses and a primary education facility with associated car parking, access and landscaping arrangements on a Greenfield of approximately 23 ha.
- 1.4 The concept of the envisaged scheme is to cater for the increasing housing demand and thus to enhance the economic prosperity and self-sufficiency of Cullompton. The proposal meets the longer term needs and aspirations to accommodate growth arising within the region in a sustainable manner with the site being promoted through the Local Plan process. The site includes an allocated land at the contingency site AL/CU/20 and a non-designated site off Colebrooke Lane.
- 1.5 The site is noted to benefit from:
- A close proximity to local education, employment, shopping and social facilities.
  - It is accessible by a number of cycleways and footpaths to existing facilities within the surrounding area and well served by a number of public transport services commuting between Exeter and nearby regional centres.
  - A location that provides an opportunity for people to travel to and from the site by a variety of means of travel other than solo car use.
  - The Planned Eastern Relief Road that will facilitate a more direct and improved access to application site from the Strategic Highway Network.
- 1.6 Movements internal to the site are managed to create a safe travel environment for all the road users, particularly facilitating easy access by foot and cycle. Taking into account the nature and location of the proposed development, the maximum parking standards outlined within the Local Plan are proposed to avoid any potential over-spill on street parking as a result of under provision.
- 1.7 Measures and initiatives in the form of network enhancements and travel planning will be proposed to support the delivery of a sustainable development, enhance the site connectivity by alternative means of transport and promote the usage of Active Travel where appropriate.

## **2.0 TRANSPORT PLANNING POLICY**

2.1 The design philosophy of any proposed development should echo Central and Local Government's vision to promote a sustainable transport regime with particular emphasis on priority measures for pedestrians, cyclists and public transport users.

### **Devon and Torbay Local Transport Plan 2011 – 2026**

2.2 Devon and Torbay Local Transport Plan 2011 to 2026 has been developed in response to the changes in priorities and policies of the Coalition Government with the aim to deliver a transport strategy that is of greater efficiency and better use of resources to meet economic, environmental and social challenges. This is a combined Local Authority submission covering the whole of Devon and Torbay.

2.3 The plan seeks to provide a transport system that will offer business, communities and individuals safe and sustainable travel choices whilst assisting in delivering a low carbon future, a successful economy and a prosperous healthy population living in an attractive environment. It will build on the success of the Local Transport Plan I & II and continue to deliver value for money schemes and policies to take the county forward over the next 15 years.

2.4 To achieve this, the strategy has five key strands:

- Deliver and support new development and economic growth;
- Protect the existing transport network by making the best use of the transport asset and prioritising maintenance;
- Work with communities to provide safe, sustainable and low carbon transport choices;
- Strengthen and improve the public transport network; and
- Become the place to be naturally active by developing and investing in the rural and urban cycle and walking network.

### **Mid Devon Emerging Local Plan 3**

2.5 Mid Devon District Council is in the development of an emerging Local Plan 3 that includes the Core Strategy adopted in July 2007 and the Allocations & Infrastructure Development Plan Document in 2010 prepared under the former LDF process.

➤ **Core Strategy**

2.6 The core strategy is the 'umbrella' document for the forthcoming Local Plan 3 and forms part of the Development Plan for Mid Devon. It sets out key principles that will be considered in determining the planning application and provides framework to steer the development and change in the District.

2.7 The Core Strategy states that the market towns of Tiverton, Cullompton, Crediton and Bampton will be the main focuses of the new development in balance with their individual infrastructures, economies, characters and constraints. Development will be targeted to:

- Provide a sustainable mix of homes, businesses, shops, leisure, health, education and many other users, creating a balance that increases self-sufficiency, resolves existing problems where this is feasible and helps to meet rural needs;
- Protect and enhance their environmental assets including their character, biodiversity, heritage, setting and air quality;
- Develop underused and Brownfield sites within the towns in preference to Greenfield land or public open spaces; and
- Enhance town centres as accessible, vital and viable locations for a vibrant mix of uses, and as public transport hubs.

➤ **Allocations & Infrastructure Development Plan Document**

2.8 The AI DPD contains policies on District-wide matters such as development strategy and supporting infrastructures. It outlines land use allocations in Tiverton, Cullompton, Crediton, Bampton and 7 of the 21 villages identified in the adopted Core Strategy.

2.9 Part of the proposed development is identified as a contingency housing site for 100 dwellings within the Mid Devon Local Plan (**Appendix B**). Policies that are related to the application site on transport grounds are:

**AL/CU/20 Colebrooke**

*A site of 4.8 hectares at Colebrooke is identified as a contingency site for residential development, to be released in accordance with policy AL/DE/1 subject to the following:*

- a. *100 dwellings with 35% affordable housing;*
- b. *Provision of two points of access from Siskin Chase;*
- c. *Provision of 2.7 hectares of Green Infrastructure, to include the retention of land in the floodplain as informal amenity open space;*
- d. *Measures to protect and strengthen trees, hedgerows and other environmental features which contribute to the character and bio-diversity, maintaining a wildlife network within the site and linking to the surrounding countryside;*
- e. *Provision of a Sustainable Urban Drainage Scheme to deal with all surface water from the development and arrangements for future maintenance;*
- f. *Detailed archaeological investigation and measures to record, and where necessary, protect the archaeological interest of the site through appropriate design, layout and mitigation.*

### **Mid Devon Local Plan**

- 2.10 The Mid Devon Local Plan was adopted in 2006 and contains site-specific policies including land allocations for development and generic policies to be used in determining planning applications. Since 2006, a number of Local Plan policies have been deleted, superseded or replaced, primarily through the adoption of the Core Strategy in 2007 and the Allocations & Infrastructure Development Plan Document in 2010. The saved policies that are relevant to the site on transport grounds are:

### **S7 Vehicle Parking**

*Parking Provision within new development will ensure that:*

- I. *The shared use of parking, particularly in defined town centres, is promoted;*
- II. *5% of parking spaces provided non-residential schemes are designated for exclusive use by the disabled;*
- III. *Appropriate provision is made for motorcycle parking;*
- IV. *Parking for at least one lorry per 1000sq.m gross floor area is provided with employment development;*
- V. *Convenient, safe and secure cycle parking is provided, meeting at least the requirements set out below;*
- VI. *Car parking in new developments is kept to a minimum and does not exceed the following maxima.*



**Air Quality Management**

- 2.11 Following the first round of air quality review and assessments, Mid Devon District Council has declared the whole market town as an Air Quality Management Area (AQMA) in November 2006 due to the recorded levels of Nitrogen Oxide.
- 2.12 An Air Quality Action Plan was subsequently published in November 2009 setting out measures that the Council intends to take in order to work towards achieving the objectives. As part of the mitigation measures, the development of an Eastern Relief Road is identified within the Local Transport Plan 3 and Local Plan in a bid to provide traffic relief to the town centre.

**AL/CU/14 Eastern Relief Road**

*An Eastern Relief Road linking Station Road to Meadow Lane will be provided subject to the following:*

- a. Public consultation exercise before the route is determined;*
  - b. Provision of replacement open space and sporting facilities within the Cullompton Community Association fields and/or elsewhere in Cullompton;*
  - c. Enhancement of the existing footpath to form a shared use foot and cycleway;*
  - d. Provision of a Sustainable Urban Drainage Scheme to deal with all surface water from the development and arrangements for future maintenance; and*
  - e. Measures to protect and strengthen trees, hedgerows and other environmental features which contribute to the character and bio-diversity, maintaining a wildlife network.*
- 2.13 Taking into account the strategic location of application site, it is felt that the Colebrooke Lane development will result in a greater use of the Eastern Relief Road that will draw traffic away from Cullompton Town Centre with a lower impact along the AQMA area.

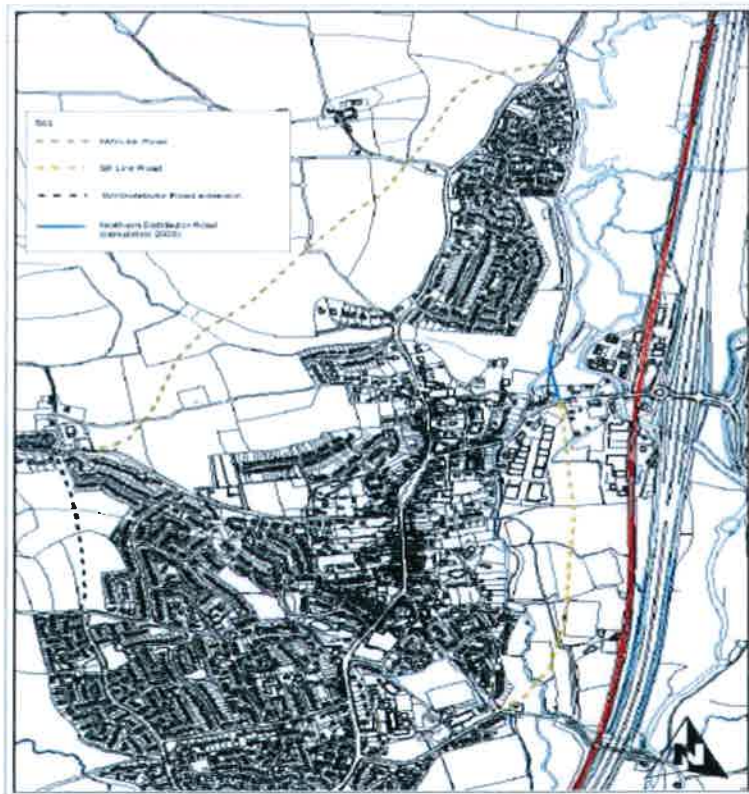


Figure 2 Air Quality Action Plan – Eastern Relief Road

### 3.0 SITE ACCESSIBILITY

3.1 Current National and Local planning policies highlight the importance of integrating land use, transport and planning decisions to address the needs of the future and present communities to create developments with good access to local infrastructure and supported by quality public transport services.

3.2 This section examines the level of accessibility by all means of transport to the site taking into account the context of its location. It demonstrates that the proposed development is reasonably serviced by public transport services and is accessible by a number of cycleways and footpaths linking with the surrounding area.

#### Site Location

3.3 The proposed development is situated within a comfortable walking distance of the employment, education, shopping and recreational facilities in Cullompton Town Centre and within close proximity to a wide range of compatible and supportive 'day to day' services which would support sustainable travel habits.

3.4 The proximity of the site to local facilities is summarised in **Table 3.1** below along with the estimated journey time by different means of travel. It should be noted that:

- All the above distances are approximately measured from the centre of the development site along a suitable walking route to the nearby facilities; and
- The estimated walking and cycling times are approximated using a walking speed of 80m/min (abstracted from *IHT Guidelines for: Providing for Journeys of Foot*) and a cycle speed of 240m/min.

Facilities	Location	Approx. Distance	Journey Time
Nursery/Crèche	Young Ones Day Nursery, 28 Tiverton Road, Cullompton EX15 1HT	1.5 km	18 min †
Primary School	Willowbank Primary School Manitoba Gardens, Cullompton EX15 1EZ	930 metres	11.6 min †
Secondary School	Cullompton Community College Exeter Rd, Cullompton, Devon EX15 1DX	700 metres	10.8 min † / 3.6 min ‡

Facilities	Location	Approx. Distance	Journey Time
Doctors	Bramblehaies Surgery, College Road, Cullompton, Devon EX151TZ	1.7 km	21.3 min ↑ / 7.1 min ↓
	College Surgery, Culm Valley Integrated Centre for Health Willand Road, Cullompton, Devon EX15 1FE	2.2 km	26.8 min ↑ / 8.9 min ↓
Dentist	Golds Place Dental Practice Ltd 26 High Street, Cullompton EX15 1AA	1.5 km	18.8 min ↑ / 6.3 min ↓
	Cullompton Dental Care 2 Higher Street, Cullompton, Devon EX15 1AJ	1.65 km	20.7 min ↑ / 6.9 min ↓
Pharmacy	Moss Pharmacy, 14 Fore Street, Cullompton EX15 1JL	1.3 km	16.3 min ↑ / 5.4 min ↓
Post Office	61A Fore Street, Town Centre, Cullompton EX15 1JY	1.2 km	15min ↑
Supermarket	Nisa 106-110 Exeter Rd, Town Centre, Cullompton EX15 1DZ	850 metres	10.6 min ↑ 3.5 min ↓
	Station Rd, Cullompton, Devon EX15 1FT	2.0 km	25 min ↑ / 8.3 min ↓
Nearest Bus Stop	Swallow Lane	242 metres	3 min ↑ / 1 min ↓
Cullompton Town Centre	Fore Street/High Street	1400 metres	17.5 min ↑

Table 3.1 Local Facilities and Services

- 3.5 A new primary school will also be facilitated as part of the development proposal to cater for the demand of primary education arisen from the scheme and neighbouring communities.

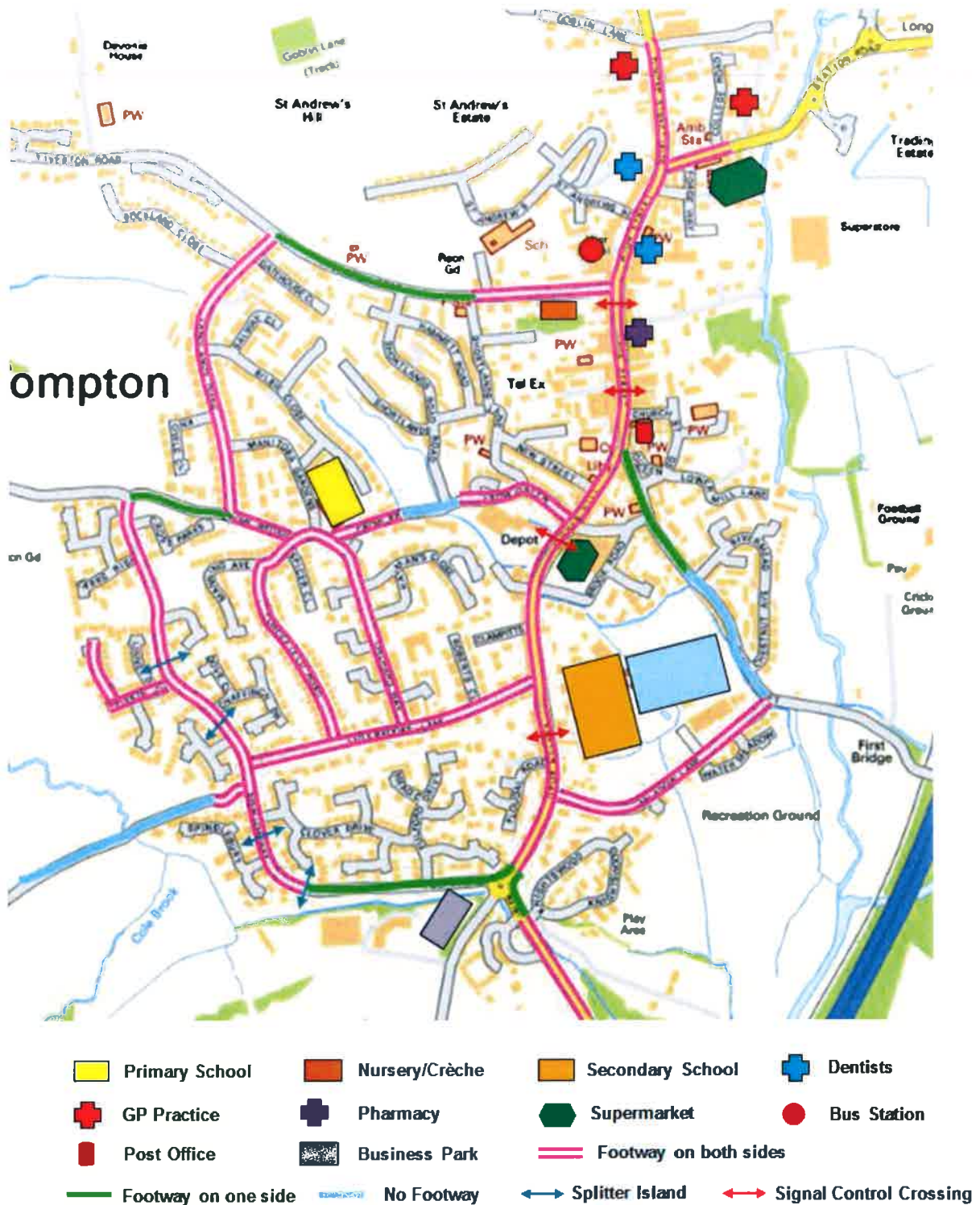


Figure 3 Local Movement Plan

**Walking and Cycling Network**

- 3.6 With a majority of local amenities accessible within a 1.5 kilometres travel distance, the proposed development benefits from close proximity to a highly permeable walking network, which provides convenient and safe access to most of the "day to day" destinations.
- 3.7 The roads within the vicinity of the site are generally a mixture of residential and local distributors with reasonable quality footways, street lighting and dropped kerbs at crossing points near to junctions.
- 3.8 With a well-maintained and kerbed footpath continually running along either side of Swallow Way, the local access road forms a pedestrian link between the development site and the wider strategic pedestrian network and facilitates an extended pedestrian route throughout the local settlement that lies to the west of Cullompton.
- 3.9 Along the road alignment, pedestrian routes radiate out and penetrate the adjoining residential estates in a mixture of segregated footpath and roadside pavements facilitating short cuts between site and the nearby local communities and Cullompton Town Centre.



**Plate 3.1 Swallow Lane**

- 3.10 Colebrooke Lane (Eastern Approach) is a residential road with a well-lit and kerbed footpath of 1.5 metres wide available along both sides of the single carriageway. Following the road alignment, the route then extends onto the wider strategic pedestrian network at its junction with the B3181 Exeter Road and provides a continuous pedestrian link to Cullompton Community College and the nearby communities.



Plate 3.2 Colebrooke Lane (Eastern Stretch)

- 3.11 Running in a north-south direction, B3138 acts as a local distributor and bisects Cullompton Town Centre providing a continuous pedestrian link to Cullompton Community Health Centre and nearby shopping and leisure amenities along its length.
- 3.12 The footpath is typically at least 2.0 metres wide being well maintained with a good surface and lighting condition. Zebra crossings are also available at regular intervals throughout the Town Centre area.



Plate 3.3 B3138

- 3.13 Attributably to its organic growth and historical nature, the town's road network has grown from a series of lanes leading to confined highway geometry. This has led to a lack of formal cycle paths along the local highway with a majority of the cycle route network either shared with pedestrians or in the form of a bridleway. The local footpaths/bridleways in Cullompton are shown in **Figure 4** below:

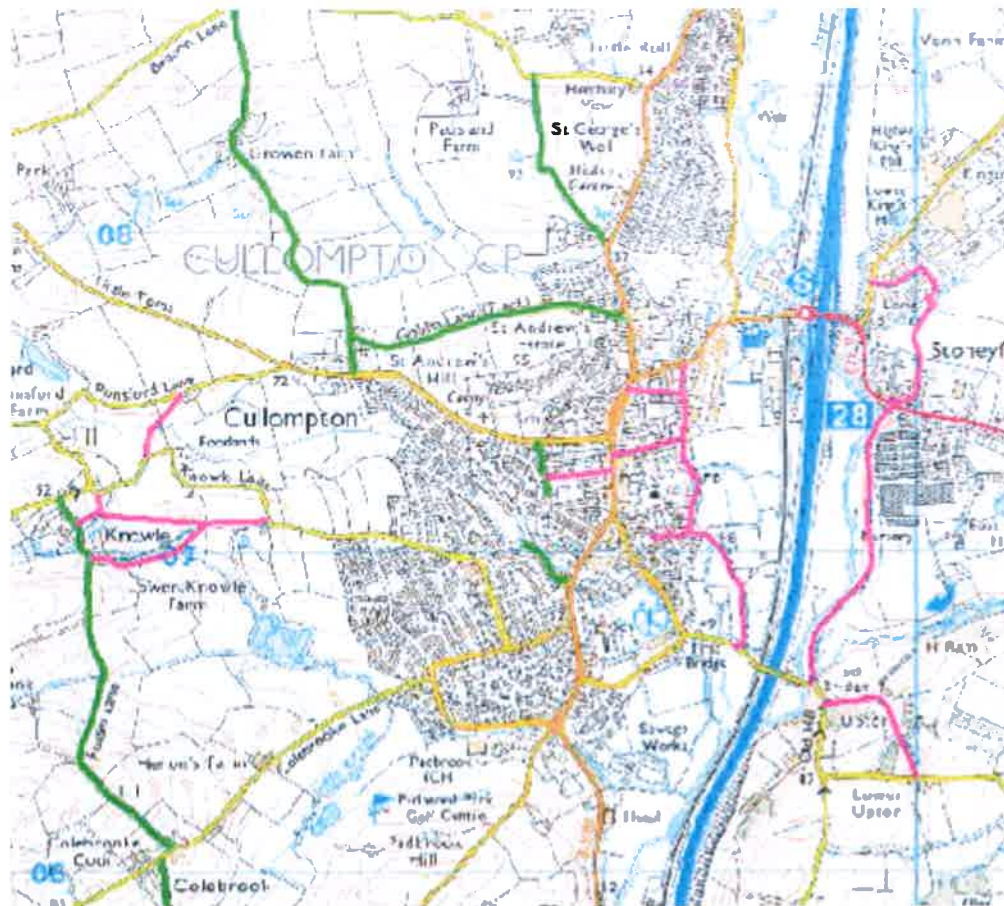


Figure 4 Local Paths in Cullompton

- 3.14 Despite the present limitation, the market town has been identified as being in urgent need of future cycling enhancement through the LDF process with a potential cycle link through the Town Centre envisaged for consideration.

#### **Public Transport**

- 3.15 The nearest bus stops are located some 300m north of the proposed allocation site along Swallow Way facilitating regular bus services No 1/1A/1C and 350 shuttling between Exeter, Tiverton and Cullompton with an average frequency of 4 services per hour in each direction.
- 3.16 The northbound bus stop is a simple flag whereas sheltered waiting facility and a timetable display are provided at the southbound stop.





Plate 3.4 Bus Stops along Swallow Way

3.17 In addition, Bus service 694 and 675 can also be accessed within a 400 metres walk at Colebrooke Lane/Exeter Road junction providing direct bus services commuting between Exeter, Honiton and Plymtree. The location of nearby bus stops are indicatively shown on **Figure 5** below:

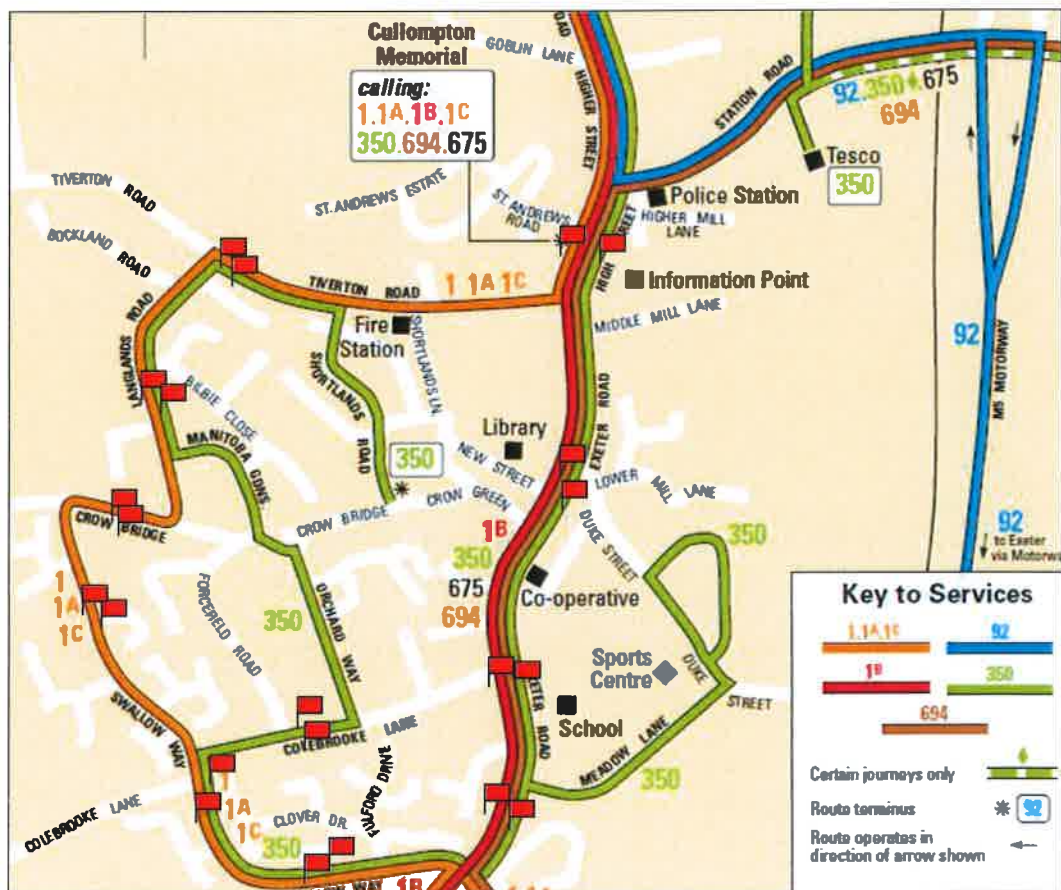


Figure 5 Local Bus Routes and Bus Stops

- 3.18 A summary of these services together with the approximate frequencies are displayed in **Table 3.2** below with local bus routes and detailed timetables included as **Appendix C**. The table indicates the general level of provision for the normal weekday (0800-1830).
- 3.19 On certain routes, however, some additional service buses are added or routes varied slightly to accommodate peak period, school journey destination demands and enhanced summer services. Future changes are envisaged in conjunction with the construction of the recent development.

No.	Operator	Frequency		Route
		Mon-Sat	Sun	
1/1B/1A/1C	Stagecoach	20 min	2 hours	Tiverton, Halberton, Uffculme, Willand, Cullompton, Bradninch, Exeter
350	Dartline	1 hour	N/A	Crow Bridge, Shortlands Road, Tiverton Road, Langlands Road, Colebrooke Lane, Swallow Way, Exeter Road, Meadow Lane, Sports Centre, Duke Street, Chestnut Avenue, Meadow Lane, Exeter Hill, Willand Road, Saxon Way, Norman Drive, Station Road, Post Cross, Kentisbeare.
694	Stagecoach	2 journeys a day	N/A	Honiton, Kentisbeare, Cullompton, Plymtree, Payhembury, Feniton, Honiton
675	Redwoods	2 journeys on Thurs	N/A	Exeter – Cullompton – Culmstock – Burlescombe – Holcombe Rogus

**Table 3.2 Bus Services**

- 3.20 The approximate travel time of bus journey from the site to the key destinations (centre of) are summarised below (as timetabled) :

Tiverton	35 minutes
Exeter	45 minutes
Willand	15 minutes
Honiton	46 minutes
Station Road, Cullompton	8 minutes

- 3.21 Tiverton Parkway train station lies approximately 7.6 kilometres to the north east of the site and can be reached via a 30 minute bus journey on Bus No. 1. The station is situated on the London to Penzance and Exeter to Bristol Line.



Plate 3.5 Tiverton Parkway Train Station

3.22 The station provides access to frequent railway services that serve several major conurbations with onwards connection to the rest of UK. Alternatively services can be accessed in Exeter from a number of stations including Exeter St David's and Exeter Central. Longer term aspirations for a new station within the town are included within the Local Transport Plan.

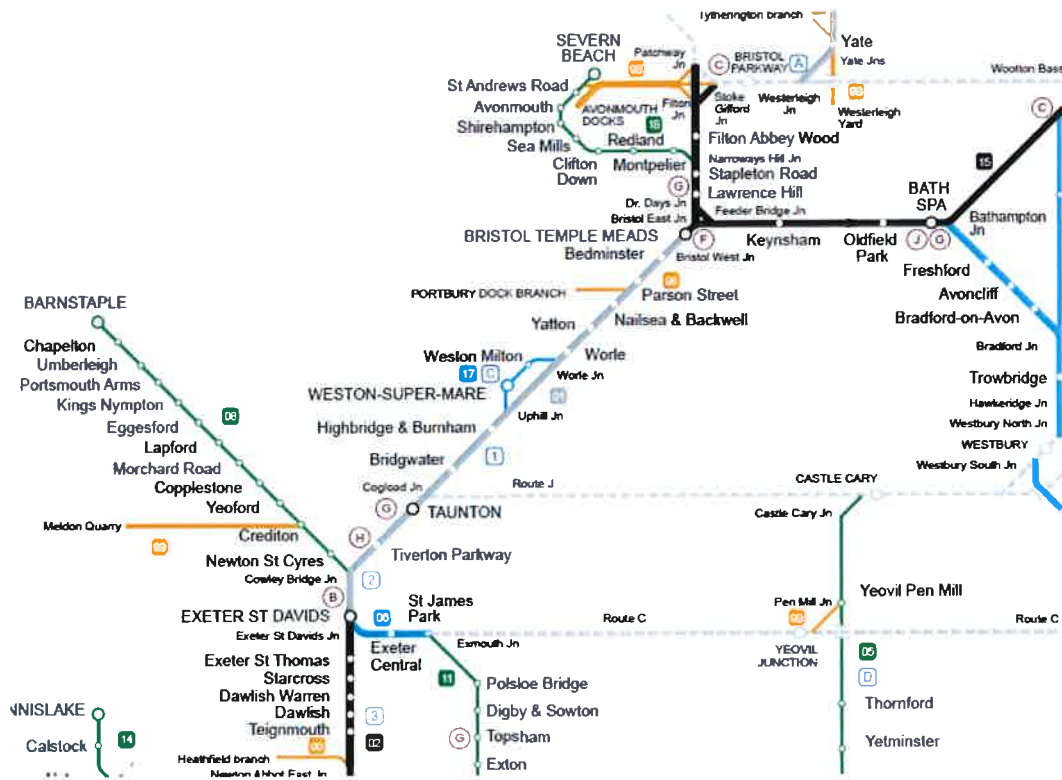


Figure 6 Regional Railway Services

**Travel by Car**

- 3.23 Vehicular access to the development site located north of the Kia-Ora Farm will be through the adjoining housing estate off Swallow Way. Whereas to the land either side of Colebrooke Lane, the access will be directly off the country lane with onwards connection onto Swallow Way in the form of priority T-junction.
- 3.24 To the west of Swallow Way, Colebrooke Lane is a lightly trafficked country lane and runs through a large rural hinterland providing access to a number of agricultural properties along its length. Some 200 metres east of the application site, the country lane feeds into Swallow Way at a priority T-junction.



**Plate 3.6 Swallow Way/Colebrooke Lane (Western Approach)**

- 3.25 Swallow Way operates as a local access road of 7.0 metres wide with predominantly a residential frontage along its length. The single carriageway runs parallel to the B3181 and bisects the western residential area of Cullompton in a north-south direction providing the primary vehicular route between the site and the strategic highway.
- 3.26 The road is serviced by sufficient street lighting of a modern standard and is within the urban speed limit of 30mph. Paved footpaths are available along both sides of the carriageway with dropped kerbed at junctions to facilitate crossing movements facilitating a continuous pedestrian link from the site to the nearby local community and educational facilities.



**Plate 3.7 Swallow Way**

- 3.27 Some 200 metres north of access junctions to the site, Swallow Way meets the eastern stretch of Colebrooke Lane at a priority T-junction as a major arm. Continuing northwards, the single carriageway extends onto a new link road that runs through the consented Kingfisher Reach with onwards connection onto Tiverton Road.



**Plate 3.8 Swallow Way/Colebrooke Lane (Eastern Stretch)**

- 3.28 Entering from the east, Colebrooke Lane is a local access road of 6.5 metres wide with a speed limit of 30mph. It serves predominantly a residential frontage with well-lit and kerbed footpath of approximately 1.0 metre wide and exits along either side of the carriageway. The carriageway then joins the B3181 Exeter Street at a priority T-junction facilitating an alternative vehicular route between the application site and the strategic highway.

3.29 Travelling southwards, Swallow Way proceeds into the B3181 Exeter Road at a 4-arm roundabout with the latter one continuing southwards and onto the centre of Exeter.



**Plate 3.9 Swallow Way/B3181 Roundabout**

3.30 The B3181 operates as a local distributor road and forms the primary route through Cullompton with onwards connections to the A373 and M5 junction 28, A38 and Willand in the north and Exeter to the south.

3.31 Within the vicinity of its junction with Swallow Way and Colebrooke Lane, the single carriageway is 6.0 metres wide and subject to a speed limit of 30mph. Whereas some 400 metres north it enters a 20mph zone that extends throughout the Cullompton Town Centre.

3.32 A path of various widths is available along either side of the carriageway with tactile paving and dropped kerbs at junctions that passes through the heart of the town.



**Plate 3.10 The B3181**

3.33 To the north of Cullompton Town Centre, the B3181 proceeds as High Street and meets Station Road and Higher Street at a signalised junction.



**Plate 3.11 the B3181/Station Road Signalised Junction**

3.34 Continue northwards, the B Road travels through the northern residential area of Cullompton and proceeds into the village of Willand with onward connection to the A38. Whereas at the signalised junction eastwards, the B3181 continues as Station Road providing access to Millennium Way, M5 Junction 28 and the A373 Honiton Road.

3.35 Millennium Way forms part of the Cullompton Eastern Relief Road offering an alternative route between the M5 junction 28 and the northern settlement area of Cullompton.

3.36 Local and strategic highway network in Cullompton are schematically shown in **Figure 7** below:

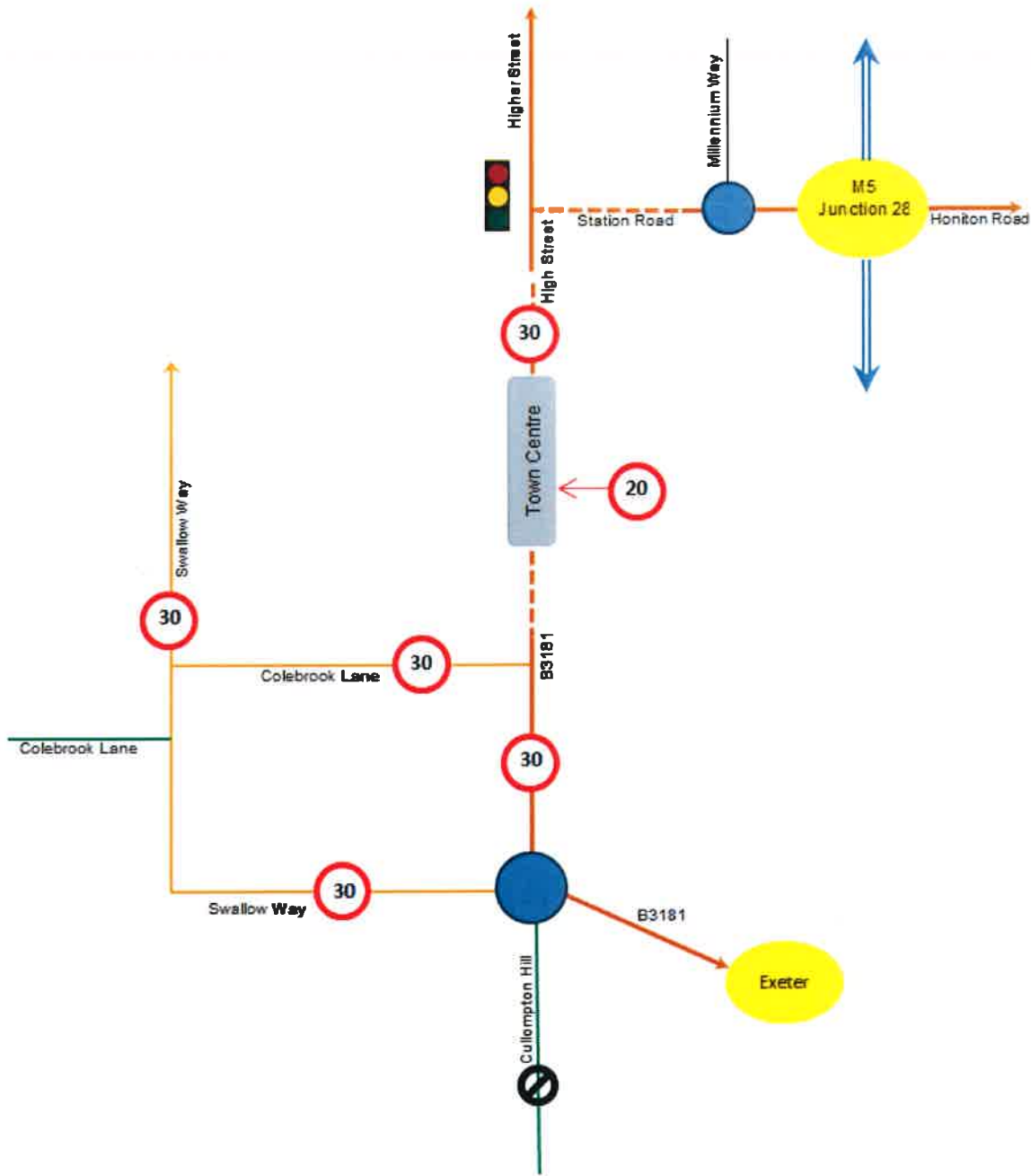


Figure 7 Local and Strategic Highway Network in Cullompton

**Baseline Traffic Condition**

3.37 In order to understand the current demand of the adjoining highway network and thus establish the operational efficiency of the surrounding gateway junctions at



- Colebrooke Lane/High Street Priority T-junction; and
- Swallow Lane/Exeter Road Roundabout.

3.38 Baseline traffic data for Year 2013 were abstracted from the Transport Assessment submitted in support of a neighbouring residential development at Knowle Lane, Cullompton. To complement the above, junction spot counts were carried out along Swallow Way and at Colebrooke Lane/High Street junction in June 2013.

3.39 The collated traffic information indicates that Swallow Lane is a lightly trafficked route with an average of 220 vehicles recorded in 2-way traffic during the AM and PM Peak hours. Whereas a peak flow level of 650 – 800 vehicles in 2-way volume are observed along Exeter Road. A highway peak of 08:00-09:00 and 17:00-18:00 was observed along the study network. Thus the baseline condition for the identified weekday peak periods are illustrated

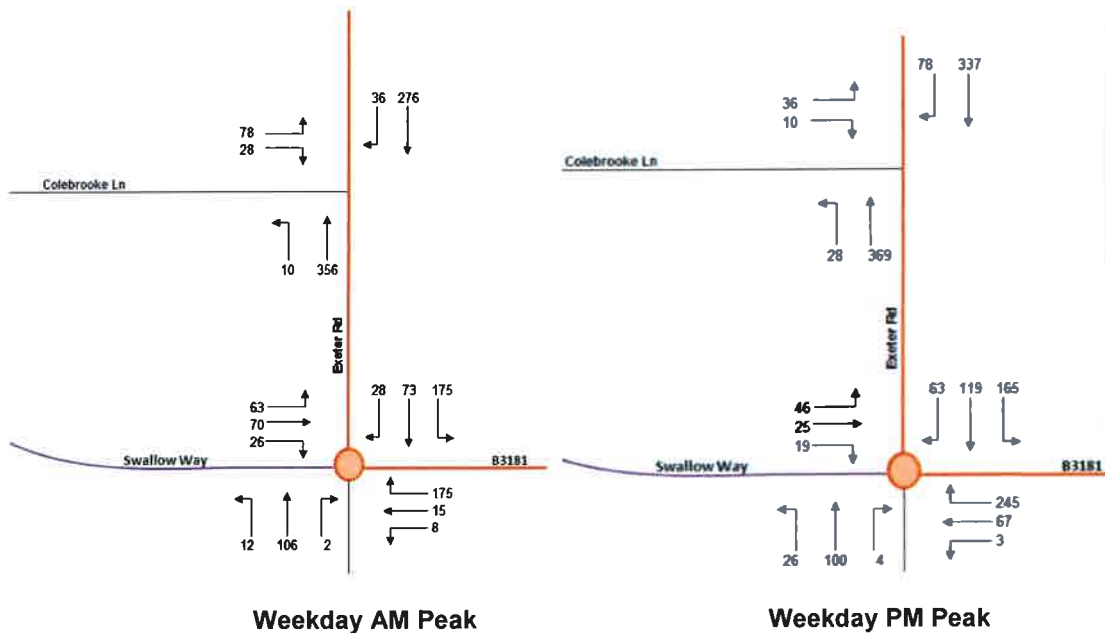


Figure 8 Baseline Condition

3.40 In order to assess the performance and thus determine the saturation capacity of the existing highway, junction capacity tests were conducted via industry standard software ARCADY and PICADY. Both the onsite observation and capacity tests indicate that all of the junctions are currently running satisfactory within their design capacity with a notional queue length of less than 1 vehicle observed at each entry

arm during the identified peak periods. A summary of the modelling results is shown in the tables below with detailed reports included within **Appendix D** and **E**.

➤ **The B3181/Swallow Way Roundabout**

Arm	Base Year 2013			
	AM Peak		PM Peak	
	RFC	MQQ	RFC	MQQ
Exeter Road	0.145	<1	0.177	<1
B3181 South	0.129	<1	0.204	<1
Bowhill	0.095	<1	0.109	<1
Swallow Way	0.119	<1	0.069	<1

➤ **Colebrooke Lane/Exeter Road junction**

Arm	Base Year 2013			
	AM Peak		PM Peak	
	RFC	MQQ	RFC	MQQ
B - AC	0.278	<1	0.123	<1
C - AB	0.102	<1	0.236	1

A – Exeter Road South B – Colebrooke Lane C – Exeter Road North

### **Eastern Relief Road**

- 3.41 It is understood that the existing highway network to the north of Cullompton Town Centre has already experienced certain degree of congestions during AM and PM Peak with delays observed at Station Road/ High Street Junction and M5 Junction 28.
- 3.42 Devon County Council is acutely aware of the problems and the present arrangement at Station Road/High Street and M5 Junction 28 is presently under review with highway solutions being subsequently investigated and developed as part of the Council's enhancement scheme.
- 3.43 Nevertheless, to reduce the traffic in Cullompton Town Centre and release the capacity of gateway junctions to the north of the market town, the delivery of an outer Eastern Relief Road has been identified by DCC and Mid Devon District Council as part of the Local Plan.
- 3.44 The Eastern Relief Road is proposed to be located to the south east of Cullompton – connecting Millennium Way to the Meadow Lane junction with Duke Street.

3.45 We are aware that Devon County Council are starting to progress formal assessment of the extension of the Eastern Relief Road to provide an alternative north/south route parallel to the M5 and avoiding High Street/Fore Street. This could be constructed prior to 2020 but is in the early stages of development with no secure funding.

#### 4.0 DEVELOPMENT PROPOSAL

4.1 The site is located to the west of Swallow Lane on the southern edge of Cullompton occupying a Greenfield land of approximately 23 hectares. The development proposal is to cater for the identified housing needs within the Mid Devon Local Plan and operates as part of an urban extension to support the sustainable economic growth of Cullompton.

4.2 The Masterplan for the site in respect to the form, mix, and quantum remain fluid to respond to market forces and other outside constraints but is envisaged as providing approximately 900 dwellings and a primary education facility with associated car parking, access and landscaping arrangements.

##### Site Access

4.3 The primary vehicular access to the site will be directly off Colebrooke Lane with onwards connection onto Swallow Way in the form of priority T-junction.



**Plate 4.1 Vehicular Access**

4.4 Along the frontage of the site, Colebrooke Lane (West) is of 4.0-4.5m in width with side hedges bordering the adjoining agricultural lands. The lane is lightly trafficked and subject to a derestricted national limit of 60mph.

4.5 To adequately serve the proposed development, Colebrooke Lane will be upgraded to operate as the main spine route through the residential estate with a speed limit of 30mph.

4.6 The existing junction of Colebrooke Lane could be utilised to access the site. Detailed discussion would be required to confirm the exact junction layout required,

however, it is likely that a simple priority junction ('T' junction) could be retained. The layout is indicated on drawing C9841-H001\_B within **Appendix F**.

- 4.7 The design of the internal road network will be engineered to accomplish the standards specified in the MfS Guidance and Devon County Council's Highways in Residential and Commercial Estates Design Guide, with particular emphasis on the creation of safe routes around the site facilitating easy access by foot and cycle.
- 4.8 The internal road hierarchy will be designed to reflect the volume and type of trips likely on each link and the number of properties accessed and would be subject to a speed limit of 20mph. The Principal Access Routes would comprise a 5.5m carriageway with a 2m footway to either side of the carriageway, joining to the upgraded Colebrooke Lane using radii of 10m. The remainder of the site roads would comprise 4.8m carriageway with 2m footways to either side and 6m radii to junctions. Mews courts and shared surfacing could be utilised if desired with varying criteria.

➤ **Colebrooke Lane (to/from application site) /Swallow Way junction**

Arm	Base Year 2023 + Committed + Dev			
	AM Peak		PM Peak	
	RFC	MQQ	RFC	MQQ
B - AC	0.806	4	0.501	1
C - AB	0.188	< 1	0.349	1

A – Swallow Way South B – Colebrooke Lane (West) C – Swallow Way North

**Table 4.1 –Capacity of Colebrooke Lane (to/from application site)/Swallow Way**

**Parking Provision**

- 4.9 The scale of parking provision is viewed in some quarters as a tool in managing demand generated by vehicles, and subsequently is keenly managed by planning authorities. The proposed framework for on-site parking provision for cars and bicycles will be determined in the context of the MDCC's Parking Standards to:
  - prevent any overspill of parking onto the neighbouring highway network; and
  - improve local highway safety by providing adequate visibility, parking and on-site turning facilities.
- 4.10 The parking standards relating to the application site are abstracted from Mid Devon Local Plan policy S7 as follows:

Land Use	Location	Maximum Car Parking Standard	Minimum Cycle Parking Standard
Dwellings	General	1.5 per unit	1 per bedroom

Table 4.2 – Parking Standards

4.11 Mid Devon's publication The Local Plan Part 3 Development Management Policies Proposed Submission (September 2012) indicates an expected level of electric vehicle provision to be accommodated for within developments, but only states development must provide an appropriate level of parking, taking into account: the accessibility of the site, type and mix of development, and local levels of car ownership.

Development type		Electric vehicle infrastructure
Residential Use classes: C3, C4	House with off-road parking	Single phase 1 charging point per unit
	House with on-road parking	Single phase 1 charging point per 10 units
	Flats/apartments	Single phase 2 charging points per 10 parking spaces (or per 10 units)

Table 4.3 – Electric Vehicle Infrastructure Provision

4.12 The changing policy environment reflects that the stringent control on parking provision has not positively influenced car use and can give rise to problem parking and access being inhibited for service and emergency vehicles through 'over-spill' parking. It is proposed parking will be appropriate and commensurate with the type and style of units proposed, but this will be a matter for later reserved matters submissions following any outline approval.

4.13 In addition suitable cycle parking storage will be provided onsite in the form of secured and sheltered cycle stands, internal storage with residential properties, and public spaces as appropriate to the development form.

4.14 To deliver a sustainable development, the proposed scheme will be sensitively designed to provide a high quality layout and environment maximising transport sustainability and integration. A Residential Travel Plan will also be introduced onsite to:

- Raise people's awareness of sustainable travel;

- Reduce people's dependency on car usage;
- Discourage unnecessary car journeys; and
- Encourage modal shift towards walking, cycling and public transport.

## 5.0 ESTABLISHMENT OF DEVELOPMENT IMPACT

5.1 For the sake of consistency, the approach and methodology that were originally developed in support of the outline permission for the adjoining Kingfisher Reach development have been embraced for the purposes of this study, to quantify the associated development impact in terms of person trips generated, modal split, trip distribution, and its assignment.

### Vehicle Traffic Generation

5.2 For the purposes of Air/Noise Quality Assessment, Devon County Council has previously suggested that a daily 2-way traffic generation of 7 vehicle movements per unit should be adopted as a base to examine the associated development traffic impact on the local highway network. Whereas for peak hour scenario, the usage of the vehicle trip rates that were originally adopted for the neighbouring consented scheme are adopted:

Period	IN	Out	Total
<b>AM Peak</b>	0.14	0.41	0.55
<b>PM Peak</b>	0.29	0.23	0.52
<b>Daily</b>	3.5	3.5	7.0

**Table 5.1 Vehicle Trip Rates**

5.3 In view of this, the resultant traffic generation for the envisaged 900 housing units are:

Period	IN	Out	Total
<b>AM Peak</b>	126	369	495
<b>PM Peak</b>	261	207	468
<b>Daily</b>	3150	3150	6300

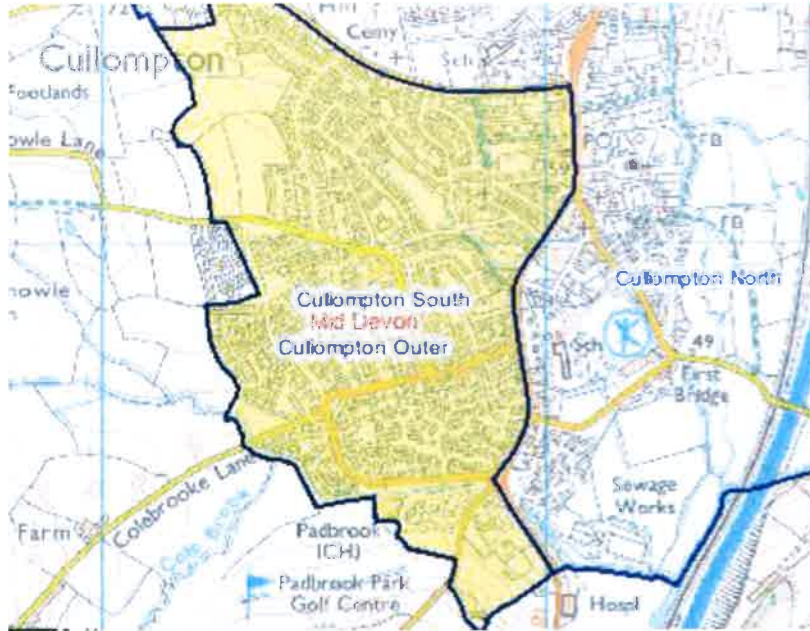
**Table 5.2 Vehicle Trip Rates**

5.4 It is understood that the proposed primary education facility is to enhance the self-containment of the application site and to serve the southwest settlement of Cullompton. Therefore, it is reasonable to conclude that the school itself will not generate any specific vehicular traffic but linked journeys with the onsite residential development and diverted trips from the neighbouring estates that already experienced along the highway network.



**Travel Patterns**

5.5 In order to predict a baseline modal split for the proposed residential development, 2011 Census Data - Travel to Work (UV39) for the administrative ward of Cullompton South was consulted to reveal the prevailing travel patterns in the neighbouring communities.



**Figure 9 –2011 Census Ward Boundary**

5.6 The summary of the travel patterns are indicated below:

Method of Travel	Cullompton South
Car Driver	72%
Car Passenger	7%
Public Transport	6%
Walking	12%
Cycling	2%
Total	100%

**Table 5.3 Modal Split**

5.7 Applying the above modal split, the anticipated trip generation by various means of transport is tabulated below:

Method of Travel	Development	
	AM Peak	PM Peak
Car Driver	495	468
Car Passenger	50	47
Public Transport	42	40

Method of Travel	Development	
	AM Peak	PM Peak
Walking	85	81
Cycling	12	12
Total	685	647

**Table 5.4 Trips Generation by All Modes of Transport**

### Trip Distribution

5.8 The distribution model previously established for the consented Kingfisher Reach Housing development was developed based upon the baseline traffic data. 2001 census data of travel to work (2011 Census is due to be released during autumn 2013) for Cullompton South was subsequently used as a benchmark for the trip rates accuracy and validity for the proposed development.

5.9 In order to distribute the associated development trip generation, made by various means of travel, to and from each identified workplace destination derived from the 2001 census data for the employed residency population of Cullompton South the following parameters were used:

- The anticipated walking and cycling journeys will be contained within less than 2 km travel distance of Cullompton area (Cullompton North & Cullompton South)
- Public Transport Users will be assigned to the destinations along the No 1 Bus service to Exeter- Tiverton.

5.10 This is consistent with the travel tendencies taken from the Department for Transport's 2009 National Travel Survey in terms of mode of travel and journey distance. Taking into account the geographic location of the application site in relation to the strategic highway network, the following route assignment was subsequently employed.

Workplace Destination	% of Residency	Car Driver	Car Passenger	Public Transport	Walking	Cycling
		71.0%	8.0%	4.0%	14.0%	3.0%
Cullompton North	21%	8%	0.9%		11%	2%
Exeter	27%	21%	2.3%	4.0%		
Cullompton Outer	3%	3%	0.3%			
Castle	4%	3%	0.4%			
Cranmore	2%	2%	0.2%			
Lowman	3%	3%	0.4%			
Westexe	2%	1%	0.2%			

Workplace Destination	% of Residency	Car Driver 71.0%	Car Passenger 8.0%	Public Transport 4.0%	Walking 14.0%	Cycling 3.0%
Lower Culm	10%	9%	1.1%			
Upper Culm	1%	1%	0.1%			
Broadclyst	5%	4%	0.5%			
Bradninch	2%	1%	0.2%			
Wellington	8%	7%	0.8%			
Halberton	1%	1%	0.1%			
Canonsleigh	2%	1%	0.2%			
Cullompton South	7%	2%	0.3%		3%	0.7%
Tale Vale	1%	1%	0.1%			
Honiton	2%	2%	0.2%			

Table 5.5 Census Travel to Work Distribution

Workplace	% of Traffic	Percentage	Direction
Cullompton North	13%	60%	Higher Street
		40%	A373
Exeter	30%	70%	B3181
		30%	M5 South
Cullompton Outer	4%	100%	Tiverton Road West
Castle	4%	100%	Tiverton Road West
Cranmore	3%	100%	Tiverton Road West
Lowman	4%	100%	Tiverton Road West
Westexe	2%	100%	Tiverton Road West
Lower Culm	12%	70%	M5 North
		30%	Higher Street
Upper Culm	1%	100%	M5 North
Broadclyst	6%	100%	B3181
Bradninch	2%	100%	B3181
Wellington	9%	100%	M5 North
Halberton	1%	100%	M5 North
Canonsleigh	2%	100%	M5 North
Cullompton South	4%	100%	B3181
Tale Vale	1%	100%	A373
Honiton	3%	100%	A373

Table 5.6 Traffic Distribution Route Assignment

5.11 The resultant traffic generation along the identified study network is summarised below. It indicates a similar level of traffic distribution is demonstrated along the B3181, A373, Tiverton Road and Higher Street.

5.12 Whereas a slightly higher percentage of vehicle movements travelling along the M5 north is predicted using solely the 2001 Census Data. This could be attributed to the

sole journey purposes it represents and therefore it is felt that a distribution based upon the existing turning heads at M5 junction 28 is more appropriate and is adopted.

To/From	2001 Census	Adopted	AM Peak		PM Peak	
			IN	Out	IN	Out
Tiverton Road West	18%	15%	19	55	39	31
B3181	32%	35%	44	129	91	72
A373	8%	9%	11	33	23	19
M5 South	9%	18%	23	66	47	37
M5 North	23%	10%	14	41	29	23
Higher Street	10%	12%	15	44	31	25

**Table 5.7 Traffic Distribution**

- 5.13 As stated in **Chapter 2**, traffic arise from the development site is likely to make a greater use of the planned Eastern Relief Road as direct route for trips to/from the north Cullompton and M5 junction 28. This will draw the traffic away from the Cullompton Town Centre and thus avoid bottleneck junctions to the north of Cullompton.
- 5.14 However to deliver a robust junction assessment, it is assumed that all the development traffic will be dispersed via Colebrooke Lane with the northbound development traffic travel via Colebrooke Lane/Exeter Road junction.
- 5.15 Upon loading the development traffic onto the immediate highway network, the associated distribution is as follows:

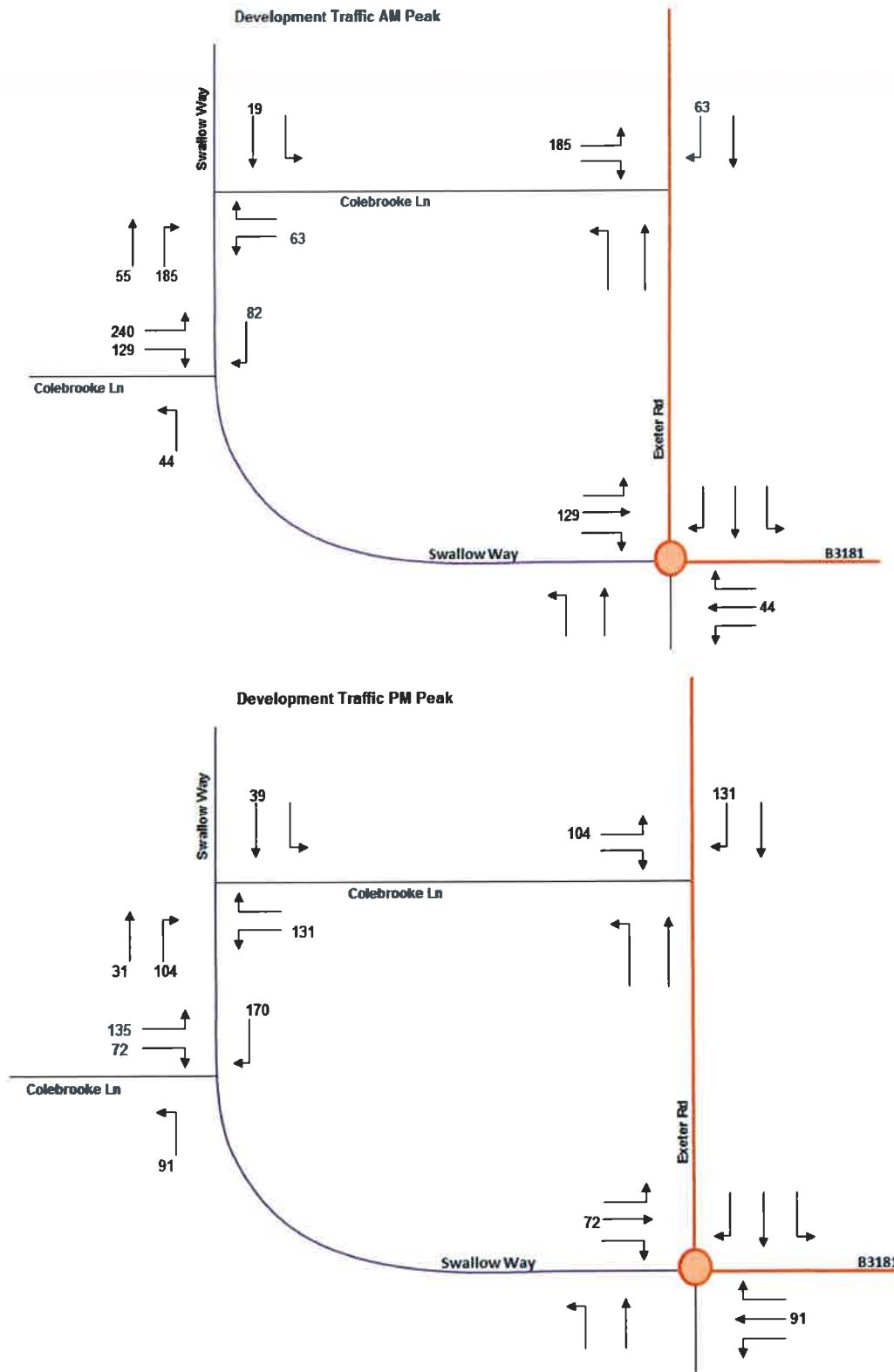


Figure 10 Development Traffic

**Potential Development Traffic Impact**

5.16 It is anticipated that development of such scale will take time to build out. Therefore to deliver a robust impact study, a design year of 2023 is proposed to ensure a robust reflection of the future highway conditions.

Period	Growth Factor	
	AM Peak	PM Peak
Year 2013 to 2023	1.13	1.13

**Table 5.8 Traffic Growth Rates**

5.17 According to the DfT Guidance on Transport Assessment, traffic generation arising from the following committed developments will also be taken as additional to the background growth to establish a future year baseline scenario.

- Kingfisher Reach Housing Development (255 housing units)
- Millwood Homes Development (50 housing units)
- Ackland, Knowle Lane (283 housing units)



**Ackland, Knowle Ln    Kingfisher Reach Housing    Millwood Homes**

**Figure 11 Location of the Committed Development**

5.18 The resultant future year 2023 baseline condition is as follows:

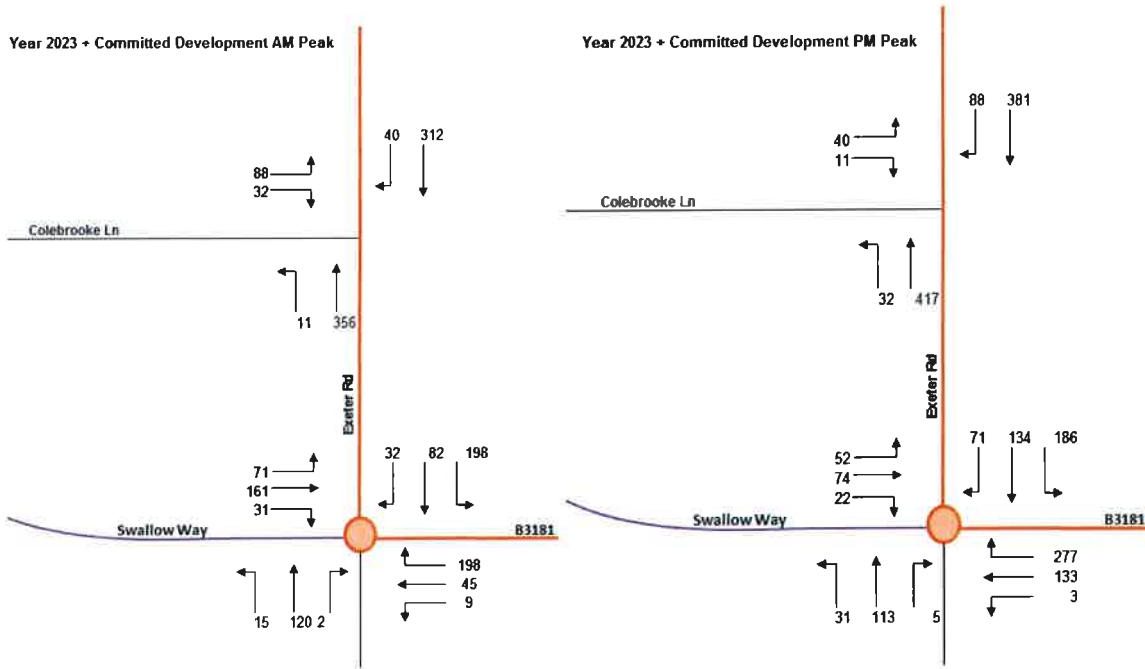


Figure 12 Future Year Baseline Flow

5.19 Taking into account the anticipated development traffic, the modelling results (Appendix D&E) indicate that the existing layout of the identified gateway junctions has sufficient capacity to accommodate not only the anticipated traffic growth but also the proposed development generation with a maximum queue length of 4 vehicles recorded at Colebrooke Lane/ High Street Junction on the minor arm during PM Peak.

➤ The B3181/Swallow Way Roundabout

Arm	Base Year 2023+ Committed +Dev			
	AM Peak		PM Peak	
	RFC	MQQ	RFC	MQQ
Exeter Road	0.18	<1	0.21	<1
B3181 South	0.19	<1	0.33	<1
Bowhill	0.11	<1	0.14	<1
Swallow Way	0.30	<1	0.17	<1

Table 5.9 the B3181/Swallow Way Roundabout Capacity Test

➤ **Colebrooke Lane (East)/Exeter Road junction**

Arm	Base Year 2023 + Committed + Dev			
	AM Peak		PM Peak	
	RFC	MQQ	RFC	MQQ
B - AC	0.770	3	1	0.400
C - AB	0.311	1	4	0.719

A – Exeter Road South B – Colebrooke Lane (East) C – Exeter Road North

**Table 5.10 Colebrooke Ln (East)/Exeter Rd junction Capacity Test**

- 5.20 The study indicates that the application site is sustainably located within 1.5km of the town centre facilities offering real opportunities to reduce the reliance on car borne trips and encourage the usage of sustainable modes of travel.
- 5.21 The anticipated development traffic can be comfortably accommodated within the existing layout of the local highway network to the southwest of Cullompton without compromising the operational efficiency of the surrounding gateway junctions.
- 5.22 In addition, the planned Eastern Relief Road will further release the capacity of the local highway network in Cullompton Town Centre and significantly reduce the traffic through Cullompton Town Centre. The scheme will facilitate a more direct and improved vehicular route between the south and north of Cullompton, subsequently the M5 Junction 28 and benefits the application site with a better travel environment and improved the journey time.



## **6.0 TRAVEL PLAN FRAMEWORK**

6.1 Travel Plans are seen by the Government as a strategic management tool in achieving traffic reduction and accelerating the development of more sustainable travel trends on both strategic and local highway networks. They have the potential to bring significant benefits to the organisations, businesses and the community alike.

6.2 It is therefore proposed that the site would provide a Travel Plan focusing on:

- reducing car dependency and usage;
- travel demand, sustainability and reduced travel need;
- promoting and facilitating walking and cycling;
- promoting and facilitating an increased use of public transport;
- information, awareness raising and marketing; and
- partnership working.

6.3 The Travel Plan which will be submitted in support of any TA:

- establish the policy framework under which the plan will operate;
- summarise the existing transport situation on the local highway network and accessibility of the site by all transport modes;
- provide baseline data on existing local travel behaviour together with an estimation of new demand;
- establish the key objectives for the Plan;
- summarise the on-site and off-site highway and other transport infrastructure measures / improvements being introduced to support sustainability; and
- include details of demand restraint and other positive incentive measures that will be introduced to encourage increased use of more sustainable modes.

These will include:

- numbers, management and allocation of the car parking spaces
- measures to encourage car sharing
- measures to encourage an increase in walking and cycling e.g. cycle purchase scheme, secure cycle parking and changing facilities
- measures to encourage increase use of public transport
- use of IT to reduce travel needs
- travel information boards, trip planning services

- visitor/customer travel management site servicing and deliveries management measures (e.g. home delivery service).
- appropriate indicators and targets;
- details of the necessary monitoring and review mechanisms proposed.

## **7.0 CONCLUSION**

7.1 This document has assessed the accessibility of this site and carried out a detailed study to establish the likely impact of the site and to propose mitigation measures should these be required. The report concludes that:

- The site is consistent with the national, regional and local planning and transport policies;
- The site is strategically positioned within the vicinity of the existing shopping, education, healthcare and employment destinations;
- Its connectivity to the walking/cycling routes and proximity to the public transport network, offers realistic alternative travel mode choices to the private car for day to day destinations; and
- The site has no perceptible detrimental impact on surrounding junctions as the anticipated development traffic can be accommodated within the existing highway system.
- The Design of the site will facilitate:
  - an adequate and safe parking environment;
  - access junctions suitable for all road users; and
  - highly permeable and appealing walking and cycling environment.
- The introduction of the Development Travel Plan will assist in:
  - Mitigating the site impact;
  - Releasing the capacity of existing highway;
  - Strengthening the coherence of the whole community; and
  - Delivering a sustainable site in the neighbourhood area.

7.2 It is therefore considered that in transportation terms the site is suitable for promotion within the Local Plan as a residential development.

**APPENDIX A**

**CONCEPT MASTER PLAN**