Dart Properties Ltd

Seabrook Orchards

Travel Plan

Project Ref: 17329-008

July 2011

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1 Introduction

1.1 Background

1.1.1 Peter Brett Associates LLP (PBA) has been commissioned by Dart Properties Ltd to prepare a Travel Plan (TP) in support of the planning application for a residential development known as Seabrook Orchards to the north of Topsham Road in Exeter.

1.1.2 This report is a TP which sets a series of measures by which the developers will seek to reduce the impact of the residential development on the local highway network and maximise the use of non-car modes of transport in line with current Government policy.

1.2 Proposed Development

1.2.1 The development is proposed to consist of up to 790 dwellings which have been assumed at this stage for the purposes of the Travel Plan to comprise 25% flats and 20% affordable housing. The current mix and the basis on the measures which are set out within this plan is set out below.

Housing (based on 790 dwellings)	
Private House	474
Private Flat	158
Rented House	118
Rented Flat	40
Education	
Primary School	based on 200 pupils
Other	
Care Home	based on 80 residents
Nursing Home	based on 100 residents

Table 1-1 Development Mix

1.2.2 The site design has been developed to integrate fully with the Newcourt area but also can be delivered independently. The site will include several areas of open space in order to promote social inclusion, community cohesion, health and well-being.

1.2.3 Further to this the development proposals also include for the provision of a new primary school and healthcare and community facilities. The proposed mix of development is aimed at making the development as self sustaining and supporting as possible so that the level of trip making on the external road network is minimised.

1.2.4 The proposed development has been designed with pedestrians and cyclists considered before other modes of transport. Therefore the development will have an extensive network of high quality footways and cycleways permeating the site. There will be a central route through the site providing access to the local facilities and wider Newcourt development area both to residents of the development and from the neighbouring communities.

1.2.5 Vehicular access to the proposed development will be gained via two junctions including a priority junction and a signalised junction with Topsham Road on the southern boundary of the site which will represent the main access points of the development for all modes of transport.

1.2.6 Further to pedestrian, cyclist and vehicle routes there is also good potential to divert a bus service into the site and an excellent provision of existing stops within a close proximity of the southern boundary of the site. The option for this and the applicant's committal towards it will be set out later in the plan. These stops provide access to excellent high frequency bus services and allow connections to other public transport services such as rail.

1.3 The Concept of Travel Plan

1.3.1 The Government's White Paper 'A New Deal for Transport: Better for everyone' presented to parliament in July 1998 highlighted the importance of TPs. The Government wishes to 'secure widespread voluntary take-up of green transport plans through partnership with business and the wider community'. They are seen as providing a 'major contribution to easing congestion, especially during rush hour'.

1.3.2 The emergence of TPs, or Green Transport Plans as they have previously been called, has become an important development in transport policy. It signals acknowledgement from the Government that much of the environmental improvement that is sought from the transport sector can only be achieved at the local level.

1.3.3 TPs represent an important response to this new agenda by encouraging individual organisations to arrange their travel requirements in such a way that it minimises adverse environmental impacts. Invariably, this reduces to a simple issue of how best to minimise the dominant role currently played by the private car without reducing accessibility for those who have to use cars.

1.3.4 Travel planning to date has largely focussed on the development of destination TPs which are generally designed to reduce car use to specific destinations such as workplaces, schools or visitor attractions. Originated by the employer, school or attraction itself in partnership with the others such as the local authorities, destination TPs focus mainly on a particular journey purpose.

1.3.5 By contrast, residential TPs are concerned with journeys made from a single origin (home) to multiple and changing destinations and must take account of different needs and travel choices over time. A further crucial difference between residential origin based TPs and destination focussed TPs is the requirement for an ongoing management organisation and structure for the TP, as there is often no single company or institution to provide continuity and a common point of interest for residents.

1.3.6 In summary therefore, a TP is a management tool that brings together transport and other organisational issues in a co-ordinated strategy for an organisation and is a package of initiatives to minimise the number and length of car trips generated by a residential development, while also supporting more sustainable forms of travel and reducing the overall need to travel.

1.4 The Benefits of Travel Plans

1.4.1 The impacts of TPs are far reaching with the potential for health, environmental and even financial benefits to individuals, businesses and society as a whole.

1.4.2 The development of a TP makes good public health sense, since the underlying objective is to reduce car travel. The reduction of car travel harbours many benefits for health, including decreased air pollution, road traffic accident prevention; and possible conversion to the healthy activities of walking and cycling. There is even a link between car growth and obesity, with both trends increasing at a similar rate between 1985 and 2000.

1.4.3 A walking person can be assured that they are being exposed to one third of the pollution that a car occupant is being exposed to. Vehicle emissions contribute substantially to levels of carbon dioxide, carbon monoxide, nitrous oxides, black smoke and particulates, all of which can be detrimental to health.

1.4.4 In terms of wider benefits, the local community is likely to enjoy reduced congestion, shorter and more predictable journey times, improved access by public transport services and the prevention of overspill parking in residential areas. It is also important to remember that around 28% of households still have no regular access to a car. Public transport, cycling and walking improvements can play a significant role in improving access opportunities for these groups and, hence, in reducing social exclusion.

1.4.5 Finally, the environmental benefits of reduced car travel include better air quality and lower levels of the noise and dirt generated by a high level of vehicle traffic. Furthermore and perhaps most importantly, the implementation of a TP can reduce a development's contribution to the global problem of climate change.

2 Existing Potential for Non-Car Modes of Transport

2.1 Introduction

2.1.1 This chapter reviews the site conditions in respect of location and provision of non-car modes of transport which can be used to access the proposed residential development. Each alternative transport mode will be identified along with its suitability as an alternative to the private car.

2.2 Site Location

2.2.1 Exeter, and its sphere of influence, is recognised as the largest conurbation in the county with a population which has grown by around 13% over the last 10 years to over 115,000. The City provides facilities for a catchment area of as many as 350,000 people and provides over 80,000 jobs.

2.2.2 The city is a Regional Centre and as such, serves as an important centre for shopping, a key location for industry and commerce and a focus for tourism and leisure. Exeter has a high reputation for quality of life, is a major provider of health and education facilities and is increasingly the location for regional headquarters of major employers. The city also forms a strategic transport node at the centre of a communications network not just for Devon but for the West Country as a whole. It is well connected to the major trunk road network (M5/A30/A38) and has direct access to the London Paddington to Penzance, Exeter to London Waterloo and Edinburgh to Penzance/Plymouth (via Birmingham) main line rail services.

2.2.3 The site is located to the east of Countess Wear roundabout and north of Topsham Road in Exeter. The M5 motorway runs along the eastern boundary of the site and the Newcourt development area and Exeter Golf and Country Club are located to the northwest of the site.

2.2.4 The Newcourt Masterplan (which will become a Supplementary Planning Document to the Core Strategy) was approved by Exeter City Council in September 2010, as a guide for development control decisions in the Newcourt area.

2.2.5 The site location is shown in **Figure 1**.

2.3 Existing Pedestrian and Cycle Facilities

2.3.1 National Route 2 of the National Cycle Network extends along the frontage of the site via Topsham Road. The route extends between Exmouth and Exeter City Centre in the locality of the site and links up with a number of Exe Cycle Network Routes. The Exe Cycle Network and NCN2 serve a number of key destinations such as St Thomas Station, The Quay, St David's Station, County Hall and University of Exeter.

2.3.2 A significant part of the route between Exmouth and Exeter City Centre is on a purpose built pedestrian and cycle link that is free of traffic between Turf Locks and Exeter along the ship canal and the western side of the Exe Estuary and a newly constructed route on the eastern side between Lympstone and Exmouth from where a longer route extends to Budleigh Salterton using a disused railway line and onwards to Sidmouth on quiet roads.

2.3.3 The city of Exeter has been dedicated as a 'Cycling City' and many of the facilities that are available to cyclists also provide benefits for pedestrians.

2.3.4 There is a cycle/footway which runs to Seabrook Mews and from here it is users can cross Topsham Road and use a quieter side road to access Countess Wear. Using these connections users can access the River Exe trail from Countess Wear providing excellent cycle facilities.

2.3.5 This route provides access to Exeter, Dawlish and employment areas such as Marsh Barton. Equally, a segregated 3m cycle/footway runs from the site access junctions on Topsham Road to Ashford Road in Topsham. Footway connections continue into the centre of Topsham and cycle access is possible on road.

2.3.6 Construction work has now begun on the next section of the railway and riverside trail from Lympstone to Exton in East Devon. As with the opened section between Exmouth and Lympstone, the new section will feature boardwalk sections over wetland areas and excellent views over the estuary and its birdlife. It is anticipated that key sections of this route along both the east and west banks of the River Exe will become major cycle commuter routes due to the favourable gradients, scenery and generally safe cycling environment.

2.3.7 The aforementioned routes make up part of Exeter's comprehensive cycle network which is indicated in **Appendix A**. This high quality network explains why the number of people cycling to work in Exeter has increased by 30% during the last 10 years.

2.3.8 Cyclists will typically commute up to a distance of 5km (Institute of Highways and Transportation guidance) and based on this, a large area of Exeter will be accessible from the site particularly as there are excellent local cycle routes. On this basis key employment areas in the City will be easily accessible by cycling as a significant amount of them are located within this catchment area

2.3.9 The 2001 Census showed that over 23.2% of people walk or cycle to work in Exeter which is significantly higher than the national average of 12.8% and this can also be explained by the high quality facilities that are present across the City.

2.3.10 The Newcourt Link Road once complete will also provide for pedestrian and cyclist access to areas to the north and will improve the permeability of the entire area. Cycle links throughout the Newcourt area will follow alignments of proposed primary and secondary routes and existing roads. Improvements are also proposed to Old Rydon Lane to make this route attractive to cyclists. Additional cycle links across the Newcourt area will be provided both along the alignment of the existing railway line crossing the existing bridge into Digby and connecting the employment sites in the north of the site to Topsham (via Newcourt Lane Bridge) and to Topsham Road in the south. A new pedestrian and cycle link across the railway is proposed and the new link across the A379 will improve linkage west to Ludwell Valley Park and beyond.

2.3.11 The railway station in Topsham allows interchange with the Avocet local rail line making rail travel from the site a viable option.

2.3.12 Walking trips to shopping facilities are considered likely for facilities located within 800 metres. In terms of commuting trips it is likely that longer trips will be made and a maximum distance of 2,000 metres can be considered as the pedestrian catchment for employees. On this basis Tesco, Rydon Lane Business Park, and sections of the Sowton Industrial Estate are readily accessible on foot or by cycle.

2.4 Public Transport

2.4.1 Sustainable travel options in Exeter also include a comprehensive network of public transport options across the City. The development site is located on the Topsham Road corridor which is one of the best served corridors in the City in terms of frequency of bus services.

2.4.2 Exeter's main operator of local buses is currently Stagecoach Devon, which operates most of the services in the City. Bus stops are located within a 400 metre walk of the site on Topsham Road and are served by service K which runs between Pinhoe and Countess Wear via Whipton Barton and Exeter City Centre. Service T runs along the same route but extends beyond Countess Wear to Topsham. Both services provide a combined frequency of every 10 minutes at peak times from Monday to Saturday and every 20 minutes on a Sunday. On a weekday the services run from 0628 to 2340 and 0657 to 2340 on a Sunday.

2.4.3 The main service on Topsham Road is Service 57 which is operated by Stagecoach from Exmouth to Exeter by single and double deck vehicles at a 15 minute frequency. Additionally, service K (to Countess Wear) and T (to Topsham) operate on Topsham Road at a combined 10 minute frequency.

2.4.4 Public transport provision is considered important and in this respect the site benefits from being located on the Topsham Road corridor which is one of the best served corridors in the city. Furthermore, the site will also benefit from services provided as part of the wider Newcourt area which are still to be determined.

2.4.5 These services are summarised in the following table:

Bus Service	Route	Weekday Peak Frequency
57	Exeter to Brixington via Topsham, Lympstone and Exmouth	15 min
K	Pinhoe to Countess Wear via Exeter City Centre	10 min
T	Pinhoe to Topsham via Exeter City Centre	30 min

Table 2-1 Local Bus Services

2.4.6 The table shows that the bus routes provide good links between the site, Topsham and Exeter City Centre. The cost of a 'dayrider' ticket which offers 1 day's unlimited travel, most with no time restrictions is currently around £4 making this mode of travel good value for money.

2.4.7 Exeter benefits from direct connections to the London Paddington to Penzance, London Waterloo to Exeter and Edinburgh to Penzance/Plymouth main line railway services. These routes provide rail access to stations southwest to Cornwall as well as to a number of major cities including London, Bristol, Birmingham, Newcastle and Edinburgh.

2.4.8 There are also a number of local rail services available in the city including the Avocet Line from Exmouth, the Tarka Line from Barnstaple, and the Riviera Line from Paignton. Local rail services are an excellent addition to on road bus options as they are not held up by general congestion and the Avocet Line provides efficient links to the eastern side of Exeter via stations close to the site at Digby & Sowton and Topsham to Exmouth. The existing rail stations close to the site can be reached on foot, bicycle or by public transport.

2.4.9 The Avocet Line provides a half hourly service to several stops leading towards the City Centre which is 11 minutes away, as well as towards Exmouth which is 16 minutes away. This line stops at Exeter St Davids via Exeter Central and a single ticket costs around £2 to Exeter Central.

2.4.10 Exeter City Centre is served by two main railway stations. Exeter St David's is the main line station with all services calling here, whilst Exeter Central is more convenient for the city centre but served only by local services and the main line route to London Waterloo. There are also five suburban stations, Topsham, St James Park, Polsloe Bridge, Pinhoe and Digby & Sowton, served only by local services on the Avocet Line to and from Exmouth. Exeter St Thomas is the only suburban station on the southwestern side of the river Exe and it is served by the Riviera Line.

2.4.11 The bus routes described along with the locations of local railway stations are shown on a map in **Figure 2**.

2.5 Availability of Local Facilities

2.5.1 There are significant local facilities in the vicinity of the site which are within easy walking and cycling distance, including local shopping facilities, a primary school, doctor's surgery and library. Three secondary schools are within easy walking and cycling distance for secondary age children. Major retail and employment facilities such as the Tesco supermarket (Rydon Lane Retail Park) and major employment areas north of the A379 are also within easy reach of the site by a range of transport modes.

2.5.2 To compliment the existing facilities there are also comprehensive new facilities proposed on the site itself including a primary school, new doctor's surgery and other primary healthcare facilities, local store, community hall, café, crèche, open space allotments and leisure facilities.

2.5.3 In terms of leisure facilities Exeter Rugby Club is situated to the north of the site and comprises of a stadium and conference facilities. An adjacent site on the A379 frontage has planning permission for a health and fitness club which is currently being constructed. Additional facilities along the Exe Valley and into Topsham are also accessible via the Exe Estuary Cycle Trail which runs adjacent to the site, linking the proposed development into Exeter's high quality cycle routing network. The site is in easy reach of Ludwell Valley Park, and there are football, rugby, cricket and bowls facilities nearby.

2.5.4 In terms of education facilities the site is very well located in terms of access to secondary schools as there are 3 good secondary schools within walking distance of the site. Isca College is located along Topsham Road, the new St Lukes School at Pinhoe is located on the Ring Road and the St Peters Roman Catholic School is located to the west of Rydon Lane. Primary school children will be provided for on site by the development of a new primary school, hence all primary school trips will be less than 400m and all are to be undertaken on foot.

2.5.5 Topsham to the southeast is accessible on foot, cycle and public transport and it provides many local services. These include a food market, pubs, restaurants, shops, health services, open air swimming pool, farm shop and a rail station.

2.5.6 Finally it should be noted that there are two bus stops located on Topsham Road within easy walk of the site which connect to the excellent bus services on Topsham Road which link to Exeter City Centre and Topsham.

2.5.7 The location of these local facilities in relation to the site is shown in **Figure 3**. This plan shows isochrones for 400 and 800 metres along with the locations of a number of key local amenities.

2.6 Residential Development Accessibility Criteria

The Exeter City Local Plan outlines accessibility criteria that all new residential developments should meet. The criteria states that residential development should be located within walking distance of a food shop and a primary school and should also be accessible by bus or rail to employment, convenience and comparison shopping, secondary and tertiary education, primary and secondary health care, social care and other essential facilities. The criteria are outlined in the table below:

Facility	Target Distance (Metres)	Maximum Distance (Metres)
Food Shop	500	1000
Primary School	500	1000
Other Facilities	750	1000
Bus Stop	400	500
Rail Station	-	800
Facility	**Public Transport Travel Time in Minutes**	**Car Travel Time in Minutes**
Shopping	30	20
Education	30	20
Other Non-residential	40	25

Table 2-4 Accessibility Criteria for Residential Development

2.6.1 The review of local facilities has shown that the site largely meets the public transport criteria and is in close proximity to retail, and educational facilities meaning that the distance targets are met. There are primary, secondary and further education establishments which are readily accessible from the site and the city centre is within the public transport and car travel time limits.

3 Strategy and Targets

3.1 Introduction

3.1.1 This chapter outlines the strategy, objectives and targets of the TP for the proposed residential development known as Seabrook Orchards.

3.2 Strategy Overview

3.2.1 The TP for the Seabrook Orchards development is site specific with the choice of measures partly determined by the existing opportunities and constraints offered by the site.

3.2.2 The principle of sustainability has been designed into the scheme from the outset with the result that a very high level of public transport and very high levels of walking and cycling will be achieved. The development from its ethos is also one of sustainability as the developers of the site are not going to simply sell it onto a bulk house builder as Dart Properties Ltd plan to maintain control of the delivery of the site throughout its delivery ensuring that it sets a new benchmark for sustainable development in Exeter.

3.2.3 The TP embraces this ethos and combines a range of hard measures such as site design, infrastructure and new services with 'soft measures' such as marketing and raising awareness. The specified measures provide a holistic package in which individual measures are integrated into the design, marketing and occupation of the site rather than being 'retrofitted' once the development is established. The measures will therefore achieve more sustainable travel patterns from the outset, rather than cutting existing car use in order to take advantage of the fact that travel behaviour change is more likely to come about when other lifestyle changes such as moving house are occurring.

3.2.4 However, in order to maximise the impact of the hard measures in the residential area surrounding the site, it is also proposed to introduce measures focussed on the wider community in order to extend the benefits of the TP as widely as possible and increase the benefit of the proposed development to residents neighbouring the site.

3.3 Objectives

3.3.1 The main objectives of the TP are to:

- Address residents' need for access to a full range of facilities including work, education, leisure and shopping
- Reduce the need for unnecessary travel to and from the development and assist those who need to travel to do so by sustainable modes
- Reduce the traffic generated by the development to a significantly lower level of car trips than would be predicted for the site without the implementation of the travel plan in order to minimise the traffic impact on the local highway network
- Encourage those travelling to and from the development to use public transport, cycle or walk in a safe and secure manner.
- Promote healthy lifestyles and sustainable, vibrant local communities be extending the benefits of the TP through the local area.

3.4 Targets and Indicators

3.4.1 Targets for residential Travel Plans are based on the number of car trips made to and from the development during a specific period of time; dependent on the number of occupied dwellings on site. This is because modal split data is harder to obtain from residential developments as people will make a range of journeys by a variety of different modes. However, monitoring the total number of vehicle trips in and out of a development is a simple and cost effective form of monitoring and also provides the best indicator of the uptake of more sustainable options.

3.4.2 A target therefore needs to be set as to the number of single occupancy car trips that take place during a 12 hour period which the success of the Travel Plan will be assessed against. This will be measured by way of an annual survey which will take place over areas of the development once it is completed and following 12 months of occupation.

3.4.3 In order to determine the number of vehicle trips the proposed development would generate under base (no TP) conditions, reference was made to the latest national trip rates database TRICS 2010(b) in order to calculate person trip rates for each household, full details of which are contained within the TA. These person trip rates were then used to calculate vehicular trip rates for the proposed development in line with the data from TRICS 2010(b) combined with the 'travel to work' modal split obtained from the 2001 Census for the ward of Topsham in which the site is located.

3.4.4 The base vehicular trip rates are shown in the following table:

	Arrivals	Departures
All Housing Trips	2.067	2.182
Primary Education Trips	0.460	0.500
Nursing Home / Sheltered Housing Trips	1.528	1.522

Table 3-1 Projected 'Non Intervention' Daily Vehicular Trip Rates for the Development

3.4.5 Based on the current mix of the development set out in Table 1-1 the predicted daily 12 hour traffic generation of the proposed residential development is shown in the following table:

	Arrivals	Departures
All Housing Trips	1633	1724
Primary Education Trips	92	100
Nursing Home / Sheltered Housing Trips	275	274

Table 3-2 Projected 'Non Intervention' Vehicular Trip Generation of the Development

3.4.6 In order to set a deliverable, measurable and achievable target for single occupancy car trips from the development it is necessary to apply adjustments from the baseline. Base modal splits were generated from the 2001 census used to generate new target modal splits in discussion with Devon County Council. Baseline modal splits derived from 2001 census are shown in the table below:

Mode	Residential Modal Splits		Education Modal Splits	
	Peak Hours	Off-Peak	Peak Hours	Off-Peak
Walk	10%	10%	41%	47%
Bicycle	4%	4%	3%	3%
Bus	9%	9%	18%	11%
Train	4%	4%	1%	0%
Car Driver	55%	56%	18%	24%
Car Passenger	4%	4%	19%	15%
M/C	2%	1%	0%	0%
Home Working/Other	12%	12%	0%	0%

Table 3-3 Baseline Modal Splits

3.4.7 When setting the new 'target' modal splits against the 2001 census it was necessary to compare the transport options that were available when the census was undertaken. The 2001 census for central Exeter shows a high percentage of trips made on foot and recent improvements to facilities around the city will have increased the rates throughout the city. Therefore although the proposed site is located to the east of the city centre there are many excellent opportunities for residents to work within walking distance of the site. This includes new employment opportunities on the site itself such as the school and shops as well as in the wider Newcourt development area. It is also possible to walk to employment at Sowton and Topsham. There is the possibility for some residents to walk to Sowton & Digby or Topsham Stations to use the Avocet Line trains and these trips are included in the walking targets.

Mode	Residential Modal Splits		Education Modal Splits	
	Peak Hours	Off-Peak	Peak Hours	Off-Peak
Walk	13%	14%	64%	78%
Bicycle	11%	11%	4%	4%
Bus	11%	11%	18%	12%
Train	4%	4%	0%	0%
Car Driver	38%	38%	4%	5%
Car Passenger	7%	7%	10%	1%
M/C	2%	1%	0%	0%
Home Working/Other	14%	14%	0%	0%

Table 3-4 Travel Plan Target Modal

3.4.8 These targets embrace the ethos of providing an exemplar sustainable development and are aimed at being deliverable, measurable and achievable based on the way in which Dart Properties Ltd plan to deliver this scheme.

- Walking levels are similar to existing areas but bettered due to the provision of improved local facilities and employment opportunities which will be available within a short walk of the site.

- The proposed cycle levels are higher than the census as recent improvements to the cycle network have led to improved base modal splits. This has been discussed with the DCC Exeter Cycling City team and Sustrans and the targets proposed are in line with their target increases for the 'Cycling City'.

3.4.9 The residential targets also include increased uptake of bus patronage as the site is located on one of the best served corridors in Exeter and there is potential for the provision of a community run bus service. Finally there are excellent opportunities for car sharing to be facilitated by the TP co-ordinator and the potential provision of a car club.

3.4.10 The provision of a primary school on site provides an excellent opportunity for a significant modal shift towards walking and cycling in terms of education trips. This has also been reflected in the target modal splits.

3.4.11 In terms of the nursing home and sheltered housing the trip generation was developed from the 85th percentile to ensure a worst case scenario. However Staff Travel plans will be developed for both proposed homes and a series of measures will be undertaken to ensure easy access to the proposed community transport service and to reduce the number of staff and carer trips to and from the site. Therefore, as the vehicle trip rates are generally fairly low in the first place the target modal splits match those of the average vehicle trip generation from TRICS.

3.4.12 The TA sets out a series of measures which will be provided to improve the sustainability of the site. The TA then sets out a series of target modal splits which are based on the nature of the proposed development, the levels of mitigation and the aspirations of the developer. These are set out in table 3-4 and it is the developer's aspiration that these targets are aimed at each stage of the development and fully realised by one year post construction.

3.4.13 The target percentage modal splits given above can be used to calculate the total vehicle trip rates and therefore the total number of vehicles which would arrive and depart at the site should the targets be met.

3.4.14 Applying these target modal splits provides an adjusted target trip rate for the development.

	Arrivals	Departures
All Housing Trips	1.443	1.518
Primary Education Trips	0.100	0.105
Nursing Home / Sheltered Housing Trips	0.956	0.944

Table 3-5 Target Vehicle Trip Rates for the Development

3.4.15 Applying these trip rates to the current development mix set out in Table 1-1 the predicted daily 12 hour traffic generation of the proposed residential development is shown in the following table:

	Arrivals	Departures
All Housing Trips	1140	1199
Primary Education Trips	20	21
Nursing Home / Sheltered Housing Trips	172	170

Table 3-6 Target Vehicle Trip Generation of the Development

3.4.16 The figures given above are based on a projected base scenario derived from the TRICS database. Although the projected figures are robust estimates they do not represent the actual trip rates observed when residents move into the development. Therefore the baseline figures and corresponding targets will need to be adjusted when the site is occupied. This should be done by undertaking a period of vehicle trip monitoring using automatic traffic counters (ATC) on the site access junctions. The level of occupation at which this survey would be appropriate would need to be agreed with DCC.

3.4.17 Further monitoring would then be carried out as set out in Chapter 6 of this TP.

4 Proposed Measures

4.1 Introduction

4.1.1 This chapter outlines a number of measures to be implemented as part of this TP in order to meet the target vehicle rates as set out in the previous chapter.

4.1.2 In line with the sequential approach set out in the Devon Structure Plan (TR5) this chapter describes measures to encourage walking, cycling and public transport prior to less sustainable modes.

4.2 Walking and Cycling

4.2.1 Walking and cycling is a highly sustainable mode of travel which not only protects the environment but also provides many documented health benefits. The development has been designed to ensure that the internal infrastructure is permeated with footways and an ample provision of shared pedestrian / cycle paths.

4.2.2 Topsham Road has an existing shared use pedestrian and cycle way alongside the road where the proposed site access junctions are to be located. It is proposed that shared use pedestrian / cycle ways are installed through all site access points to tie in with these existing facilities. Further to the southern access routes onto Topsham Road a further shared foot and cycle way will be provided to the boundary of the development site nearest to the Newcourt Link Road.

4.2.3 An existing pedestrian crossing on Topsham Road near the location of the proposed signalised site access junction has been incorporated within the proposed junction layout providing an easy route for users of the development to access Countess Wear.

4.2.4 In addition to the primary pedestrian and cycle access from Topsham Road, high quality footways will be provided on all estate roads along direct desire lines with suitable lighting to encourage pedestrian travel throughout the site. A central pedestrian and cycle route will also be provided through the core of the site along the proposed green corridor to Topsham Road.

4.2.5 Finally, secure cycle parking will be provided on site for all dwellings to ensure that residents wishing to travel by cycle will not be discouraged by the lack of facilities to accommodate them.

4.2.6 In terms of soft measures, dwellings will be provided with travel plan literature information that shows where the local walking and cycling facilities are located along with travel distances and approximate travel times by each mode. This will be supplemented with information on cycle safety, maintenance checklists and copies of the cycle/walking maps produced by Devon County Council.

4.2.7 In addition to information being provided to residents; this development will also deliver a WalkBUDI and BikeBUDI matching services that ensure residents can find other people making similar journeys to them by the same mode so that they can then arrange to travel together.

4.3 Public Transport

Fixed Route Bus Services

4.3.1 The Topsham Road bus corridor is one of the best corridors in Exeter with a number of excellent quality high frequency services including the number 57 which runs between Exeter and Exmouth with a frequency of 15 minutes. Further to the number 57 there are also other local bus services (K & T) which run to the City Centre via Countess Wear. This represents an excellent bus provision from the site to Exeter City Centre and Exmouth. However, in order to build upon this it is considered that further measures can be introduced to further enhance the existing excellent bus service provision.

4.3.2 Bus stops located on the southern boundary of the development site are within walking distance of all users of the proposed development and provide access to the number 57 service. This service is a strategic bus service which does not travel through the surrounding housing estates and as a result it benefits from excellent journey times. Therefore, diverting the number 57 service into the development site would not provide any material benefit to the service or to future residents. The pedestrian and cycle links provided as part of the proposed development will provide an excellent level of access to this service for users of the development.

4.3.3 Route K currently terminates in the Countess Wear estate which is a short walk from the development but it is not proposed to alter the route of this service as the development proposals include a pedestrian crossing facility at the signalised access junction with Topsham Road. This will provide excellent access to Countess Wear and allow users of the development access to this bus service.

4.3.4 Route T is in effect a half hourly extension to Route K which continues into Topsham. There is currently a waiting time of around 18 minutes at Topsham for this service and so it is proposed that the service will be diverted into the development and that this will be possible without the need for a new vehicle. Discussions will be held with the operator to agree this.

4.3.5 Therefore it is proposed to discuss the option of diverting this bus service into the development. To facilitate such a diversion, a bus stop will be provided at the school and local centre within the site. This would provide a 30 minute frequency bus service from within the site to Exeter and Topsham.

4.3.6 In ensuring reliability of a quality bus service it is also proposed to extend the existing northbound bus priority along Topsham Road to the Newcourt link road junction. This involves simply modifying the infrastructure and signage around the southern end of the service road so that buses will use the northbound service road rather than Topsham Road itself.

Flexible Community Transport Services

4.3.7 Direct and easily accessible bus services that are able to pick up passengers from local community hubs or even from their own front door are seen as the key to achieving a high level of public transport use for this site. Whilst the level of service along Topsham Road is considered to be very good, the fixed bus routes only provide for destinations along the bus corridors. The proposed community transport service is able to ensure that the proposed development benefits from the highest levels of accessibility as it can travel to destinations outside of the existing bus corridors based on the specific demand within the site itself.

4.3.8 There are numerous options in terms of the operator and routing of such a service but the key benefit of a community run service is that it is not tied to a fixed route or timetable. The service is able to provide a combination of education, commuting and disabled access services and this will be dictated by the demand. One potential service operator is the Exeter Community Transport Association (Exeter CTA) (www.exetercta.co.uk). The Exeter CTA was contacted to gather more information on the requirements for setting up a service from the site.

4.3.9 Such a service will be run under a Section 22 licence and will involve the provision of a single 24 seater vehicle. The exact routes and times that the service runs will be managed by the local community demand and the site TP coordinator will provide liaison between the developer, the local community and the bus operator. The TP coordinator will also be responsible for encouraging the local community to take ownership of the scheme once the Travel Plan period has ended.

4.3.10 Although the exact requirements of the service will not be known prior to the arrival of residents on site it is proposed that the service should operate to the following destinations.

- Digby & Sowton rail station allowing onward journeys and access to Sowton industrial estate.
- A school service bringing pupils to the primary school on site (possible stops at Clyst St Mary, Clyst St George, Topsham and Countess Wear).
- Marsh Barton industrial estate.
- Exeter Central rail station.
- Off-peak services to Tesco, Digby & Sowton rail station, Darts Farm and Topsham via surrounding villages.

4.3.11 It should be noted that Exeter CTA has identified a local need for community transport between Clyst St Mary and Topsham during the off-peak period which the service could provide. This brings benefits of the site to the wider community.

4.3.12 The target modal splits in this TP assume a patronage of at least 50 two-way trips over the course of a whole day and it is thought that this represents an average occupancy of 69% which is considered to be a robust estimate in order for the service to remain viable after the first 5 years.

4.3.13 Further details of this can be found in **Appendix B** setting out how the service will run at the outset prior to a community group being formed and being able to take over the running of the community bus.

Bus Service Information

4.3.14 In addition to the improved access to bus services as described, the developer will also provide a range of information regarding public transport to residents as follows:

- Route map
- Timetable and service frequencies
- Location of nearby bus stops
- The national public transport website www.traveline.org.uk
- The Government's travel options website www.transportdirect.info

4.4 Rail Contributions

4.4.1 Through consultation with DCC they have indicated that they are looking for contributions towards the delivery of the new rail halt which is proposed as part of the wider Newcourt development. Subject to confirming detail of funding mechanism, timing and the level of other contributions imposed on the development such a contribution will be provided by the Travel Plan. This is considered to be in line with the strategic objectives to increase the overall rail usage in the city and also to reduce the impact of the development.

4.5 Car Sharing

4.5.1 The measures described thus far provide excellent opportunities for users of the development to travel on foot, by bicycle or via public transport. However it is clear not all users of the development would wish to use these modes of travel, perhaps for convenience or due to disabilities. In order to encourage those residents who wish to use a car to share their car journeys wherever possible, www.carsharedevon.com will be promoted as part of the TP as an alternative way to travel.

4.5.2 Car Share Devon allows members to register their frequent and one-off journeys online and the *lift*share matching service puts people travelling in the same direction or similar directions in contact with each other, allowing them to travel together and share the costs whilst also reducing congestion and pollution on the roads.

4.5.3 Discussions will also be held with Car Share Devon into setting up a specific Seabrook Orchard section of Car Share Devon for residents and employees from the development. This will enable users to have a greater ownership and maintain an element of independence but also allow them to connect to the wider network of potential car sharing opportunities.

4.6 On Site Car Club

4.6.1 Many people choose to own a private car for the benefits that it can provide in terms of social and leisure trips. This includes the ability to visit friends and family at distance, link trips such as work and shopping or perhaps simply because public transport provision is not available at certain times of the night or weekend. As such, although a resident of the proposed development will wish to walk, cycle or get a bus to work they will still want access to a private vehicle at other times.

4.6.2 This TP recognises that owning a private car is expensive as there are significant costs involved in both the purchase and maintenance of the vehicle. These costs are so high that some are quite simply not able to afford a vehicle and others can not afford to have a private car for social use and then pay for public transport to get to and from work. This can lead to social exclusion or a decision to not use more sustainable modes.

4.6.3 Car Clubs provide a car that is returned to a designated space near the member's home. Members of the club can book the car online and start it using their membership card. This provides access to a vehicle for residents that either can not afford or justify purchasing a vehicle outright. The car maintenance and insurance is covered by the operator of the Car Club and so the user only has to book the car and pay the required fee. They prove to be cost effective for many people and if advertised appropriately will encourage some residents to use a combination of public transport and the Car Club instead of purchasing a private vehicle.

4.6.4 PBA have undertaken some research to determine the approximate cost to the developer of this site to set up a Car Club as part of the development. The local Car Club operator is a company called Co-Cars who currently run four to five cars in the Exeter area which includes at least one car at Topsham. It is likely that the Seabrook Orchard Car Club will be integrated into this wider existing local car club.

4.6.5 The Travel Plan will provide access to the Car Club including provision of a local car to the site which will be managed by the local car club and the Travel Plan coordinator.

4.7 Home Working Provision

4.7.1 It is recognised that not all residents will have a job which can be done from home and so the proposed target rate for home working is in line with the average for the city of Exeter as a whole.

4.7.2 The developer is liaising with internet service providers in order to deliver super-fast broadband technology across the site. It is thought that dwellings with a study room and reliable high speed internet connection would provide excellent opportunities for home working to residents of the development. Provision of super fast broadband will also maximise the use and efficient of buses, community bus and car clubs as easier access to information about them is available and delivered directly to the users.

4.8 Resident Travel Packs

4.8.1 A key driver in behaviour change and travel planning is to provide high quality information in a clear and concise way. Some of the information that would be included in a travel pack has already been introduced in this chapter and this section outlines the full package of information to be included within resident travel packs.

4.8.2 Travel packs will take the form of a folder which will be produced and supplied to each household upon occupation. This Travel Pack will include the following:

- Details of the TP measures and its objectives and targets
- Walking and cycling maps showing safe routes to local facilities
- Details of WalkBUDI and BikeBUDI matching services
- Details of the site Car Club
- Site specific public transport information with a map showing routes and bus stop locations
- Details of how to claim a free bus pass
- Information on the car sharing arrangements for the development including Car Share Devon leaflets
- Information on supermarkets offering home delivery in the local area
- Contact details for the TP Co-ordinator.

4.9 Personalised Travel Planning

4.9.1 While generic travel information has a role to play in informing people about their transport options, it does not necessarily mean that people receiving it would use sustainable transport, as much of the information is superfluous to people's individual needs. PTP was therefore developed to provide tailor-made information to people in order that they received only the information they wanted and that which was relevant to their particular travel patterns

4.9.2 Provision of a Travel Pack to all initial sales throughout the development is proposed to be followed up by PTP which will be delivered across the site to all new residents. This will comprise door to door visits to each dwelling when occupied which will seek to identify the travelling needs for each new resident and provide them with information as to how to make their journeys more sustainably.

4.9.3 This method of information provision involves doorstep interviews to understand individuals' particular travel needs and this is then typically followed up by information (and possibly incentives) related to that persons requirements being sent through the post. For example, if a person showed a particular interest in walking they might be sent some information on the health benefits of walking, some maps showing good walking routes and perhaps a pedometer. However, someone expressing an interest in public transport would be sent timetable information relating to their trips, information on how to obtain real time information for their bus or train, information on costs and how to obtain the cheapest tickets, and perhaps a ticket to incentivise the person to try out that mode of travel.

4.9.4 PTP schemes have shown, on average, a 10% reduction in car trips. This method of providing information is therefore an extremely cost effective way of reducing congestion; especially when compared with the infrastructure costs of trying to build our way out of congestion.

4.10 Social Media and Information

4.10.1 In addition to the Travel Packs and PTP visits for each household, additional information will be provided across the site using new and innovative as well as traditional approaches. Traditionally a TP notice board would be provided in a public area of the development which will contain the walking and cycling maps for the area as well as the public transport information which will be updated by the TP Co-ordinator as required. This TP notice board will provide up to date information for the residents and will also be useful for visitors to the site.

4.10.2 Additionally, a newsletter will be produced and distributed to each household detailing the progress of the TP and the results of the monitoring. This newsletter should also act as a promotional tool for the TP by publicising any new measures, national sustainable travel campaigns and improvements to sustainable travel facilities in the local area. This newsletter will also be issued as a branded Smart phone application which would disseminate all the relevant information on travel instantly to the residents of the site via their mobile phones.

4.10.3 However, new technologies such as Twitter and Facebook can also be used in order to advise users of up to date travel information, travel options as well as latest initiatives promoted by the development such as bike clubs commuter coffee mornings all of which will be developed and promoted by the Travel Plan coordinator.

4.10.4 Social media has been found in recent examples to be an excellent tool in promoting the use of non car modes of transport particularly to future residents of a site which is likely to comprise mainly young professionals and families. Social media has also been proven to bring about a cultural shift in the way that information is provided and disseminated.

5 Implementation and Responsibilities

5.1 Introduction

5.1.1 Within this section the roles, responsibility and implementation plan of the Travel Plan will be set out in detail. This will set out who is responsible for the Travel Plan and how it will operate together with the financial incentives and penalties that would be incurred if the targets are not met. This section will also include a breakdown of costs associated with the Travel Plan to give an indication of the measures which the developer's are including towards sustainable transport.

5.2 Travel Plan Structure

5.2.1 The diagram below sets out how the Travel Plan will operate and be managed on a day to day basis. This sets out that the Travel Plan Coordinator is the key member of staff and will manage the relationship between the developer Dart Properties Ltd, the Highways Authority DCC and the on site tenants. Experience suggests that the best way to deliver a Travel Plan on a large mixed use development is through a Travel Plan Steering Group which will comprise of any relevant bodies who has an interest. This will include representatives from the various site occupants, DCC and Highways Agency officers, the community bus operator and the car club operator. This will be managed by the Travel Plan Coordinator (TPC) whose responsibility it is to report back to DCC.

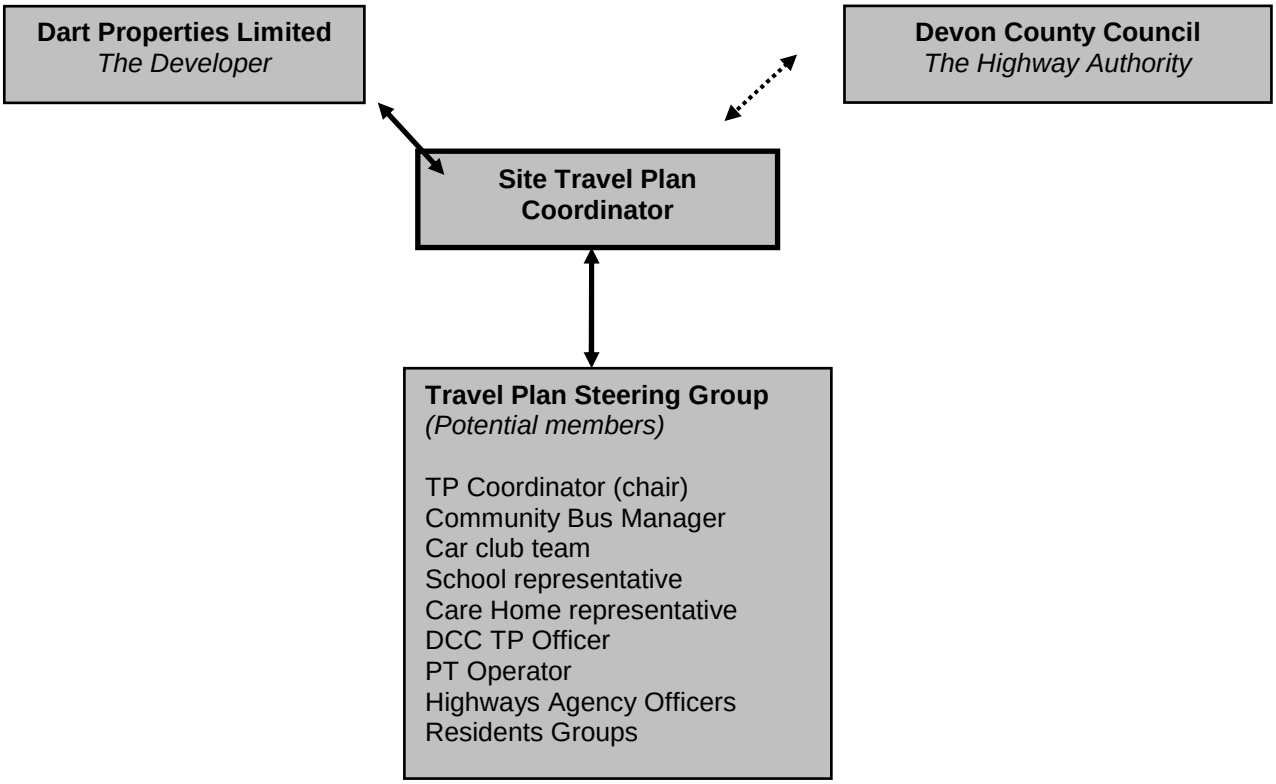

Figure 5-1 – Travel Plan Management Structure

5.3 Travel Plan Management

5.3.1 As part of the implementation and ongoing management of the TP, two distinct stages are identified within the DfT's guidance on residential TPs 'Making Residential Travel Plans Work'.

5.3.2 The first stage of the TP's development and implementation covers the construction period, initial occupation of the site, and the first few monitoring and review periods of the plan. This period is crucial in terms of ensuring that the measures outlined in the plan are actively implemented to help reduce car use by residents, and that the objectives and targets identified in the plan are being met. During this period, the developer, management organisation and TP Co-ordinator will all need to be closely involved in the management and refinement of the plan.

5.3.3 Once the development is up and running and has a critical mass and momentum the TPC will ensure that the Steering Group is set up and run appropriately. This will then continue for the duration of the plan and as further phases of the development are occupied it is likely that the steering group will be enlarged as other areas set up their own residents and delivery groups.

5.3.4 Ultimately, the local highway authority will have overarching responsibility for the area as it is embraced by policies and measures established in the LDF. The authority can help identify an effective future management arrangement and also help to ensure coordination with other TP initiatives in the area, or take the plan forward themselves in cooperation with the local community.

5.3.5 The ultimate aim however is that the TP Steering Group will become self managing and autonomous and will continue to run under the general guidance of the DCC once the TP period has finished and the TPC is no longer funded.

5.4 Travel Plan Co-ordinator

5.4.1 A TP Co-ordinator will be designated to take responsibility for implementing the individual measures of the TP on the site. This role will be undertaken by a person appointed by the developer for the duration of the TP which is envisaged to be 5 years, unless the targets are not met in which case this period will be extended.

5.4.2 The TP Co-ordinator will have dedicated time to administer the TP which is likely to be at least one day a week and will be in position prior to the occupation of the first residential unit to ensure that the TP measures are in place from the outset.

5.4.3 The TP Co-ordinator will be a familiar face and engage with the residents through door-to-door visits and pre-arranged and publicised 'travel surgeries' where residents will be invited to attend and raise any travel related queries or concerns. Contact details for the TPC will also be freely available so residents are able to raise issues and feel that the TP is well supported at all times. The TPC will be responsible for chairing and managing the Travel Plan Steering Group and engaging as widely as possible in its appeal.

5.4.4 The TP Co-ordinator's responsibilities include the following:

- Managing the Travel Plan Steering Group
- Representing the 'human face' of the TP and explaining its purpose and the opportunities on offer
- Undertaking door-to-door visits and 'travel surgeries'
- Managing the annual TP budget.
- Providing travel option information to those living at the development
- Updating the TP notice board / website / smart phone application
- Marketing and publicising of new initiatives relating to the TP
- Creating and updating the Travel Packs

5.4.5 The developer will be responsible for meeting the cost of proposed measures and will allocate an annual budget for marketing and implementing the TP which will be controlled by the TP Co-ordinator.

5.4.6 In order to ensure that potential residents of the site are informed about the TP and its goals from the earliest stage, the TPC should have a significant presence within the sales suite of the development. The sales suite should include a display outlining the travel arrangements being implemented and the sustainable travel options for the site.

5.4.7 The TPC will train other sales staff to promote the TP as an asset and significant selling point of the development. Therefore, it is proposed that a sustainable travel leaflet will be produced and supplied in response to sales enquiries. The leaflet will provide an overview of the concept of a TP, the Travel Pack, the PTP scheme and the sustainable credentials of the development.

5.4.8 Information and promotion of the TP from the outset ensures greater buy-in from future residents who will see it as an opportunity to plan changes in their lifestyle. In addition, it is important that prospective residents are made aware of the transport characteristics of the development from the outset to ensure that misunderstandings do not arise later.

5.5 Travel Plan Cost

5.5.1 Within this section the various costs associated with the delivery of the site from a sustainable transport perspective will be set out based on a nominal development mix of 790 dwellings. However it should be noted that this is a maximum figure and the submitted planning application for the actual development may be less than this.

5.5.2 Travel Plan costs will be broken down into the following sections

- Physical infrastructure measures delivered as part of the scheme,
- Community benefits which will be delivered by the scheme
- Measures provided by the developer which will be delivered by the TPC

5.5.3 A number of hard highways measures are provided which will allow the site to be delivered successfully but will benefit the wider community. The physical infrastructure measures already included as part of the scheme, which will be delivered by the development and which will assist in the delivery of the TP targets are set out below:

Summary Table of Actions			
Item	**Responsibility**	**Timescale**	**Approx. Cost**
Pedestrians			
Pedestrian crossing facilities on Topsham Road to be provided as part of the new site access junction	Developer	Within phasing scheme of development	*Capital cost of development*
A comprehensive network of footways will be provided around the development which will also tie into the existing network around the site	Developer	Within phasing scheme of development	*Capital cost of development*
Home zone style street layout to encourage walking and cycling	Developer	Within phasing scheme of development	*Capital cost of development*
Sustainable juxtaposition of complementary land uses	Developer	Within phasing scheme of development	*Capital cost of development*
Cycling			
Secure cycle parking to be provided as part of the community facilities	Developer	Within phasing scheme of development	*Capital Cost of Development*
Improve signage to existing local cycle routes within the development	Developer	Within phasing scheme of development	*Capital Cost of Development*
A comprehensive network of cycle ways will be provided around the development which will also tie into the existing network around the site	Developer	Within phasing scheme of development	*Capital Cost of Development*
Secure cycle parking to be provided as part of every dwelling and visitor parking provided around community areas	Developer	Within phasing scheme of development	*Capital Cost of Development*
Powered Two-Wheelers			
Provide parking with secure locking points.	Developer	Within phasing scheme of development	*Capital Cost of Development*
Cars			
Suitable taxi pick up / drop off point to be provided within the community centre	Developer	Within phasing scheme of development	*Capital Cost of Development*
Home zone style street layout to slow cars and manage speed of traffic to make the highway network safe	Developer	Within phasing scheme of development	*Capital Cost of Development*

Table 5-1 Physical Infrastructure Measures

5.5.4 A number of other strategic transport contributions are also proposed which will benefit the development but also the wider community. These are set out below:

Summary Table of Actions			
Item	**Responsibility**	**Timescale**	**Approx. Cost**
Pedestrians and Cycling			
Connection through site between Newcourt Link Road and Topsham Road to support wider community	Developer	Within Phasing of Scheme	*Capital Cost of Development*
Improved pedestrian facilities along Topsham Road	Developer	Prior to opening	*Capital Cost of Development*
Public Transport			
Provision of Community Bus Scheme	Developer	Upon occupation of 100th dwelling	**£300,000**
Diversion of bus service 'T' into the site	Developer	Dependent on consultation with bus operator	Nil cost assumed
Extension of Bus Priority along Topsham Road	Developer	Within phasing scheme of Highway works but prior to occupation of 200th dwelling	**£50,000**
Contribution towards Newcourt Rail Halt	Developer	Delivered as roof tax as dwellings are sold	To be agreed with DCC
Cars			
Provision of Car Club	Developer	Upon occupation of 100th dwelling	c. £10,000
Setting up of Car Sharing Database	Developer	Prior to opening	c. £10,000
Non mode Specific Measures			
Installation of High Speed Broadband	Developer	Prior to opening and ongoing.	*Capital Cost of Development*
Provision of community centre and facilities	Developer	Within community hub	*Capital Cost of Development*
Provision of a school on site for the Newcourt area	Developer	Within community hub	*Capital Cost of Development*

Table 5-2 Strategic Transport and Travel Plan Contributions delivered by the Travel Plan

5.5.5 The next table sets out those measures which will be delivered by the Travel Plan Coordinator. The position of the Travel Plan Coordinator will be provided by the Dart Properties Ltd and they will be responsible for the delivery of the following:

Summary Table of Actions			
Item	**Responsibility**	**Timescale**	**Approx. Cost**
Pedestrians and Cycling			
Bike Doctor Events / Bicycle User Group Events / Bike Safe Events	TPC	Frequent events throughout year	Only administrative costs associated.
Voucher of £100 per dwelling toward purchase of new bicycle	TPC	At occupation	£100 / dwelling
Promote Government's Cycle to Work initiative to offer tax-free bikes to residents available via a salary sacrifice scheme.	TPC	Ongoing	Only administrative costs associated.
Offer discounts to residents through partnership with local bicycle shop for accessories.	TPC	Ongoing	Only administrative costs associated.
Provide resident information packs – packs to include such things as walking route maps, links to associated websites and literature promoting travel awareness events.	TPC	At occupation of property and then reprinted annually for 5 years	£10 per dwelling per annum for 5 years
Notice board – displaying up to date travel information to be installed across site and at entrance points	Developer to provide and TPC to maintain	Prior to opening	Assume 5 notice boards £500 initial fee + £100 per annum for updates and further information
'Honesty' umbrellas provided.	TPC	On opening of community facilities	Assume Total £1000
Provision of sustainable Travel Pack to encourage cycling and walking from an early stage to include branded umbrella, torch, reflective tabard, pedometer and puncture repair kit	Developer	At occupation of property	Assume £50 per dwelling
Public Transport			
Discounts for Public Transport (5-10% on monthly / weekly ticket)	TPC / PT Operator	Prior to opening	Only administrative costs associated. TPC to agree with PT Operator
Provision of public transport 4 week taster ticket	Developer	At occupation of property	£45 / dwelling
Provide information packs – packs to include such things as bus route maps, timetables, links to associated websites and literature promoting travel awareness events.	Developer / TPC	At occupation of property and then reprinted annually for 5 years	Refer to 'Walking' section.
Notice board – displaying up to date travel information.	Developer to provide and	Prior to opening	Refer to 'Walking' section.

Summary Table of Actions			
Item	**Responsibility**	**Timescale**	**Approx. Cost**
	TPC to maintain.		
Cars			
Promotion of Car Share System and management of local database	TPC	Frequently throughout TP period	Only administrative costs associated.
Coffee Morning for specific destinations to promote car sharing	TPC	Frequently throughout TP period	Only administrative costs associated.
Provide information packs – packs to include information on benefits of car sharing, details of priority parking spaces for car sharers, details of life share website and car cost calculator.	Developer / TPC	At occupation of property and then reprinted annually for 5 years	Refer to 'Walking' section.
Non mode Specific Measures			
Encourage residents to use Greener Vehicles when purchasing new vehicles. Investigate deals with provider of Hybrid and electric vehicles	TPC	Prior to opening and ongoing.	Only administrative costs associated.
Website – provide up to date information on website of the alternative ways to travel to the site.	Developer / TPC	Prior to opening and ongoing.	Assumed set up cost £10,000 Managed constantly by TPC
Smart Phone Application for Site provide up to date information on website of the alternative ways to travel to the site	Delivered by developer / managed by TPC	Ongoing	Assumed set up cost £10,000 Managed constantly by TPC
Events – such as 'In Town Without My Car Day' (22nd September) and Bike Week (June) will be promoted.	TPC	Annually.	Only administrative costs associated.
Personalised Travel Planning for all new residents and occupants	TPC	ongoing	Assume £50 per dwelling
Surveys.	TPC	Annual multi modal surveys for period of 5 years	Assume £2,500 per survey **Total Price £12,500**
Pool Bikes – provide pool bikes within community hub available at a token charge	TPC	Prior to opening and ongoing.	Assume 10 bikes @ £500 **Total price £5000**
Permanent ATC loop	Developer / TPC	Prior to opening.	Estimated price of - **£10,000**

Table 5-3 Menu of Measures which will be delivered as part of the TP by the TPC

5.5.6 Finally the costs of providing the TPC needs to be accounted for which is assumed as a worst case to be a part time member of the site management company. However, it is considered important the employee is a senior member of the team and has the gravitas and experience of dealing with the issues which are likely to arise.

Summary Table of Actions			
Item	**Responsibility**	**Timescale**	**Approx. Cost**
Non mode Specific Measures			
Travel Plan Coordinator	Developer	Part time role for duration of Travel Plan period (5 years)	Part time position £10k per annum **Total cost £50,000** Cost could be combined with the on-site management company

Table 5-4 Strategic Transport and Travel Plan Contributions delivered by the Travel Plan

5.5.7 As can be seen the cost of the of the Travel Plan measures is considerable and will provide significant mitigation towards the overall highway impact of the scheme.

5.5.8 The TP measures are broad in nature taking account of walking, cycling, public transport and car sharing and have been developed to be specific to the proposed development. They are to be introduced to minimise the occurrence of single-occupancy car trips and encourage more sustainable travel methods by all residents and visitors of the site. The measures outlined will be delivered either, as part of the physical infrastructure works; by the TPC as part of their role which is to be funded by the developer.

5.6 Travel Plan Monitoring, and Enforcement

5.6.1 A TP requires a process of monitoring and review in order to ensure the aims of the plan are delivered in practice. Where the monitoring reveals that the targets have not yet been met, the TP can then be reviewed and refocused in order to get the plan back on track. Even when the monitoring identifies that the TP targets are being met, the plan will still need to be adapted over time in order to deliver ongoing changes in travel behaviour.

5.6.2 As the TP targets are based on the vehicle generation of the proposed development, monitoring of the progress towards the targets will be undertaken by placing automated traffic counters at the vehicular entrances to the site during the monitoring periods.

5.6.3 The aim will be to limit the level of car trips to below those levels set out within section 3.4 of this report. The ATC data provided by the permanent ATC loop will be used for an annual survey to assess whether the target limit has been achieved. In the event that the targets have not been met +/-10% for margin of error (over a generalised average period to be agreed with DCC); a more detailed multi-modal survey will be undertaken in the form of distributing questionnaires to the residents of the development in order to identify their existing travel habits and perceived barriers to travel by sustainable modes. The performance of the TP against these targets will be reported to DCC as part of an annual monitoring report.

6 Summary and Conclusion

6.1 Summary

6.1.1 The TP forms the basis of an organisational tool that should be set up to raise awareness and encourage the use of alternative forms of transport to the proposed mixed use development at Seabrook Orchard in Exeter

6.2 Conclusion

6.2.1 The key factors to the success of the TP are summarised below:

- Awareness of it and buy in from all residents and occupants
- A fully funded, experienced and enthusiastic TP Co-ordinator with sufficient funds to deliver the measures required
- Financial commitment from the developer towards provision of frequent events and providing a series of measures
- Active participation and resources from local authority, public transport providers and other relevant travel providers

6.2.2 The success of the scheme will depend on the support of the future residents. The management of the project is a key element in maintaining support and should be actively encouraged by senior management. Regular reviews will be envisaged with the purpose of monitoring the success of the scheme. The management team already exists and will continue to manage the site through the development process and once the development is up and running. The management team will provide full support for the TP process.

6.2.3 There are a range of 'hard' physical measures to improve sustainable travel at the site and also 'soft' behavioural initiatives to encourage improved travel activity which will be managed by the Travel Plan Co-ordinator.

6.2.4 Annual reviews will be undertaken by the TPC in the form of a travel survey. The results of the travel survey will report on the failure and success of the Travel Plan and the need for additional measures if necessary.

6.2.5 Ultimately it is hoped that this Travel Plan will be the bench mark for Travel Plans to support such sustainable communities in the area and engender a culture change in the way in which future residents travel. It is the eventual aim that the Travel Plan will grow into a self managing service which will deliver on its own without the need for the Travel Plan Coordinator and the monies for specific measures.

Figures

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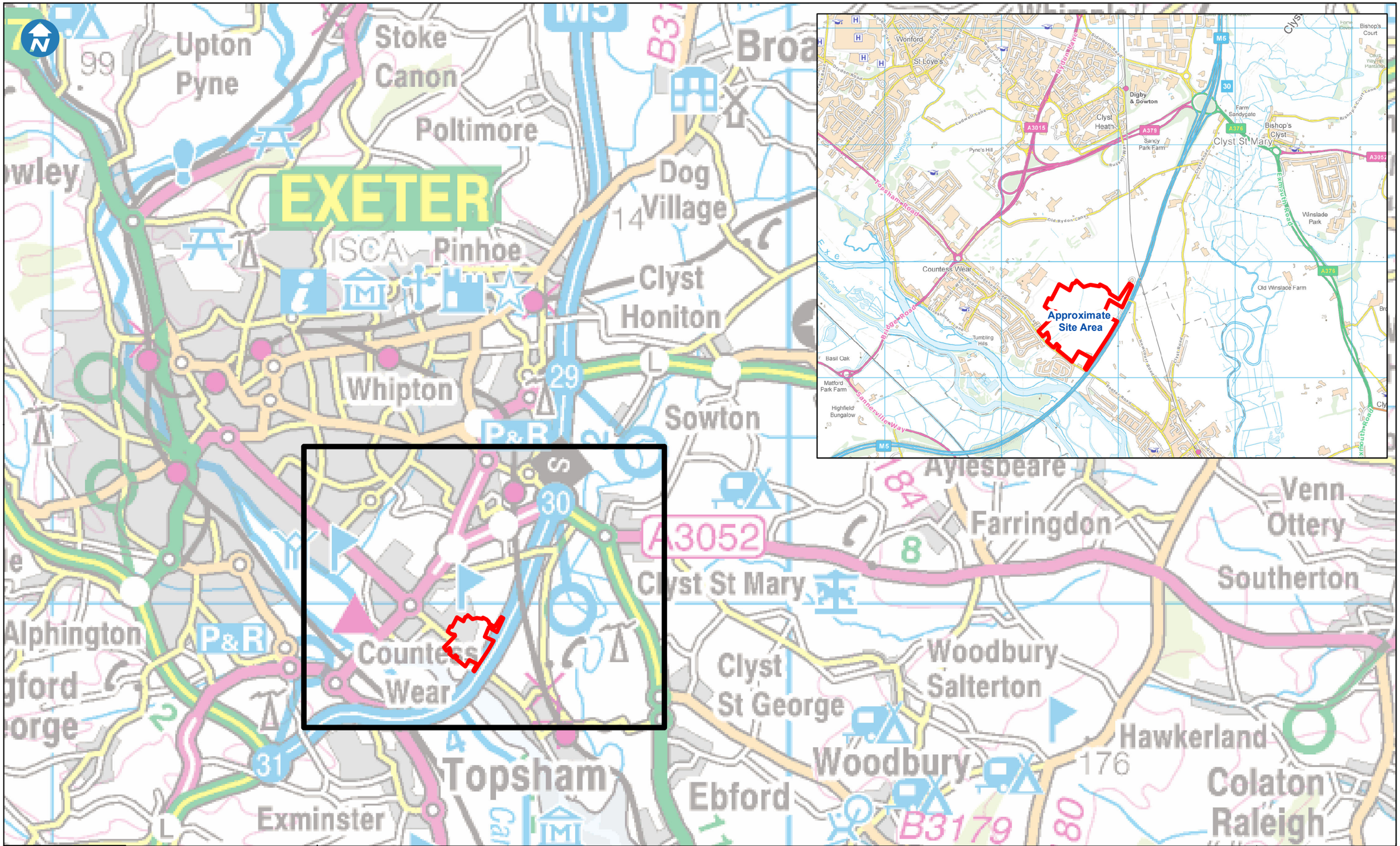

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Client

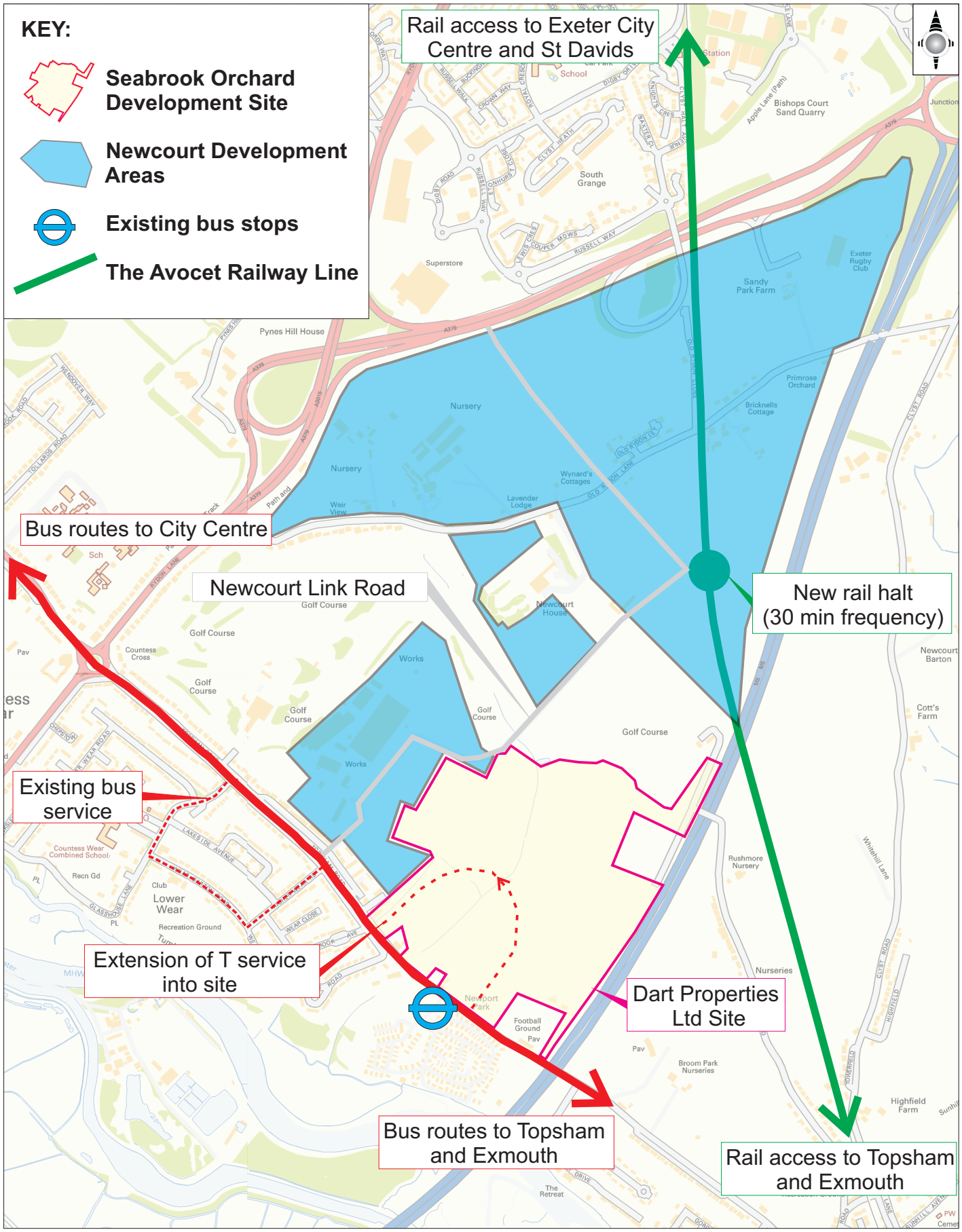
Dart Properties ltd

Seabrook Orchards Travel Plan

Site Location Plan

Date	October 2010
Scale	Not to Scale
Drawn By	PW
Checked By	JB
Figure Number	**Figure 1 - ISSUE 1**

PBA Office Taunton J:\17329 Land at Topsham Rd, Exeter\009 Transport Assessment\GIS Projects



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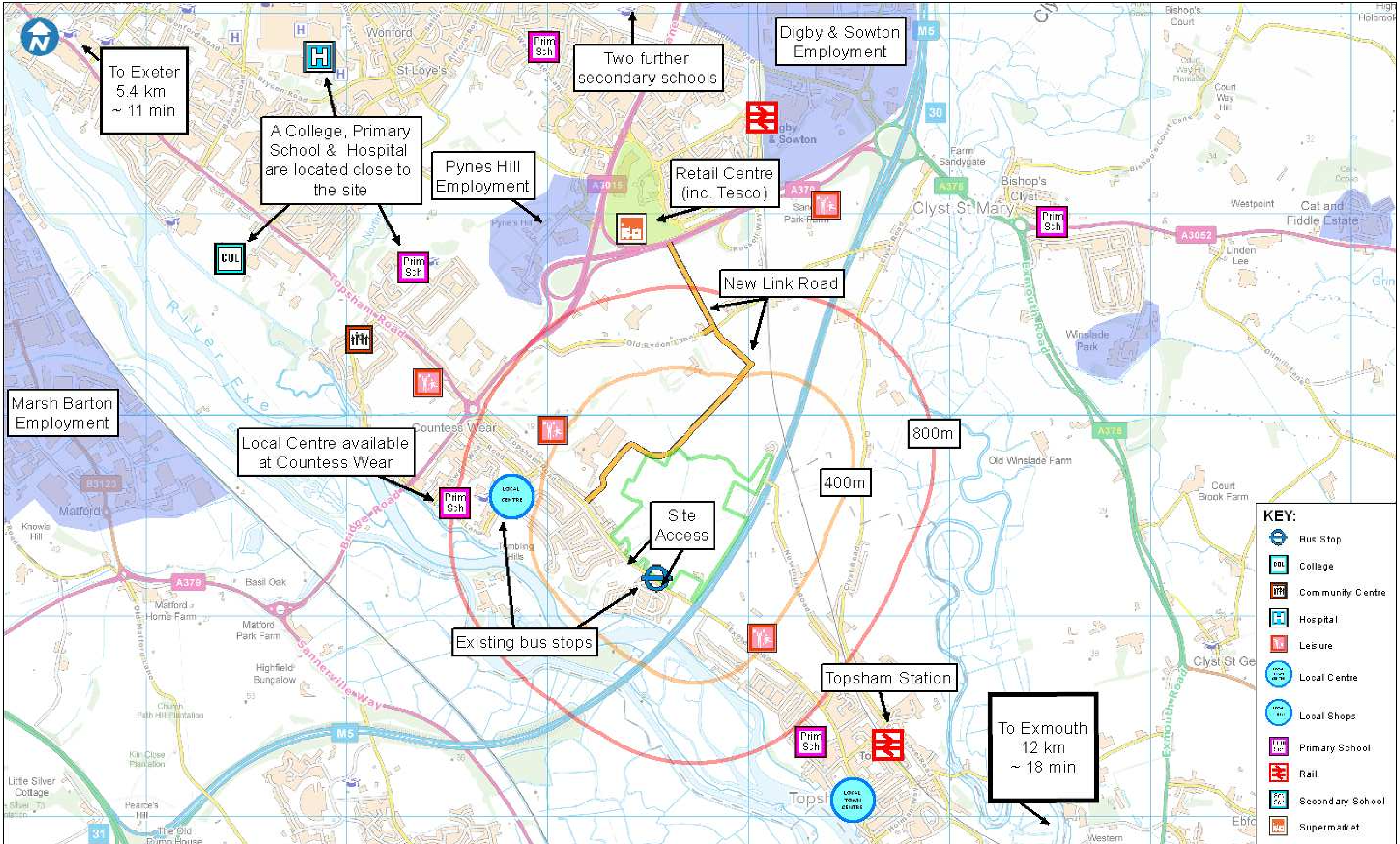
Seabrook Orchards Travel Plan

Local Bus Routes and Rail Links

Date	18/07/2011
Scale	A4 - NTS
Drawn by	KWM
Checked by	AJS
Revision	-

FIGURE 2



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Seabrook Orchards Travel Plan

Local Facilities Plan

Date	October 2010
Scale	Not to Scale
Drawn By	PW
Checked By	JB
Figure Number	

Figure 3 - ISSUE 1

Appendix A – Exeter Cycle Network

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Exeter cycle map

EXETER

Exeter Central

St David's

St James

St Thomas

Pennsylvania

Duryard

Newtown

Heavitree

Wonford

St Leonard's

St Loye's

Whipton

Pinhoe

Monkerton

Exwick

Foxhayes

Redhills

Cowley

Alphington

Ide

St Thomas

Countess Wear

Sowton

Clyst St Mary

Topsham

Exeter Airport

Blackhorse

Haldon Forest Park
www.haldonforest.org.uk

Double Locks Inn

To Turf Lock, Starcross and Dawlish

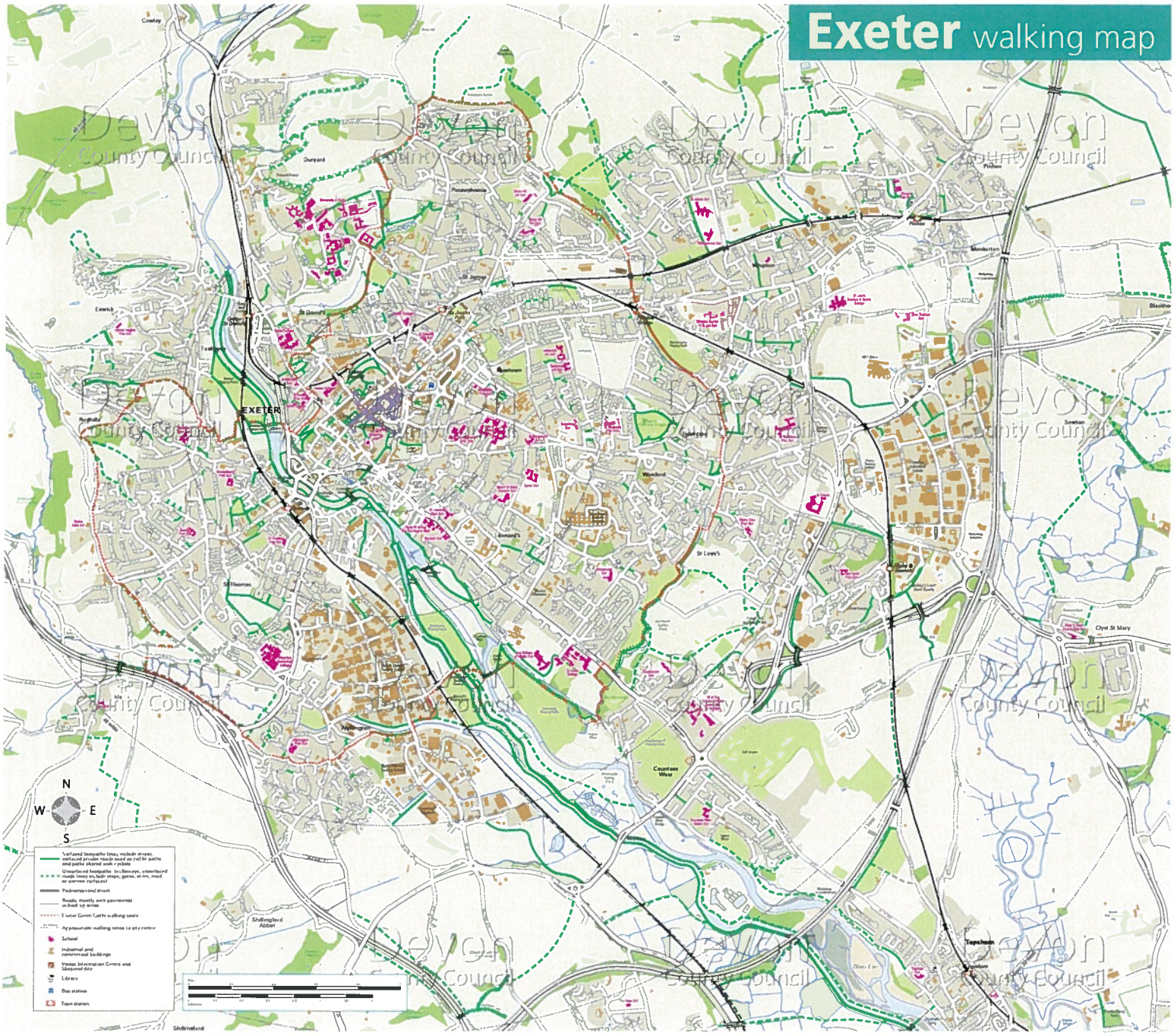
To Exmouth

N
W E
S

Miles
0 0.2 0.4 0.6 0.8 1
Kilometres
0 0.2 0.4 0.6 0.8 1 0.8 1

- Quieter roads suitable for cycling
- Traffic-free cycle route
- On-road cycle lane (contraflow)
- Footpath
- National Cycle Network
- Place of worship
- School / College / University
- Industrial and commercial buildings
- Signalled crossing
- Library
- Bus station
- Tourist Information Centre
- Train station
- One-way street
- Cycle parking
- Cycle lockers
- Cycling shops
- Cycling shops with cycle hire
- Exeter recycling centre
- Park & Ride site

Exeter walking map



Appendix B – Operation of Community Transport from Occupation

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Seabrook Orchards

Travel Plan

Although the exact requirements of the service will not be known prior to the arrival of residents on site it is proposed that the service should operate the following services.

Origin	Time	Journey Time	Destination	Time	Other Stops	Notes
Seabrook Orchards Community Hub	07:45	Digby & Sowton rail station	08:00	7-10 min	None	Allows onward rail journeys and access to industrial estate.
Digby & Sowton rail station	tbc	Seabrook Orchards Primary School	?	20-40 min	As req. from Clyst St Mary, Clyst St George, Topsham and Countess Wear	*School Service
Seabrook Orchards Community Hub	tbc	Exeter Central rail station	?	17-25 min	Marsh Barton (journey time = 7-12 min)	
-	-	-	-	-	-	Return to site / driver break
Seabrook Orchards Community Hub	regularly	Seabrook Orchards Community Hub	@ ? past each hour	30-35 min	Tesco, Digby & Sowton rail station, Clyst St Mary, Clyst St George, Darts Farm, Topsham rail station	This is an off-peak circular route running until ?
-	-	-	-	-	-	Return to primary school
Seabrook Orchards Primary School	tbc	Digby & Sowton rail station		20-40 min	As req. from Clyst St Mary, Clyst St George, Topsham and Countess Wear	*School Service
Digby & Sowton rail Station	tbc	Seabrook Orchards Community Hub		7-10 min		
Seabrook Orchards Community Hub	tbc	Exeter Central rail station		12-15 min		
Exeter Central rail station	tbc	Seabrook Orchards Community Hub		17-25 min		Return journey from Marsh Barton and city centre; last CT service of the day.

The services set out above will form a timetable for the bus service until the TP coordinator has had the first liaison meeting with local residents.