Planning Appeal: Land North West of Courtlands Cross, Lympstone

Technical paper in support of evidence by Lympstone residents

Traffic and Highways Issues

Author: Don Mildenhall **January 2012**

1. Scope of study

1.1 This study examines the impact that the proposed development at Courtlands Cross of 154 homes, 23,000 sq ft of B1 space plus 3000 sq ft of local shop/community space would have on local roads in Lympstone parish. Map 1 shows the lanes and routes which are reviewed in detail in this paper.

Map 1 Local lanes affected by proposed development at Courtlands Cross

1.2 The study assembles independent recent survey evidence, analysis, review of methodologies and draws conclusions about the impact that the development would have. It reviews the relevant aspects of work by Peter Brett Associates (PBA), PCL and also comments made by Strategic Land Partnerships, the appellant at the appeal hearing on 24 January 2012.

2. Character of rural lanes of Lympstone parish

2.1 Lympstone parish remains a rural parish. The village of Lympstone is, almost entirely, a closely-clustered settlement along a main axis running from the shoreline at the harbour to the main A376 road at The Saddlers Arms. Most 20th century development has added small estates to this core. South and east of this core settlement rural lanes run between the village, small clusters of houses (such as the hamlet of Sowden) and scattered farms and houses. This pattern has not been greatly affected by limited and scattered 20th century houses.

2.2 The Lympstone lanes are narrow, with a typical width of c 2.7m, minimum widths of c 2.2 to 2.5m and are typically bounded by hedges and/or Devon banks. Lanes are sometimes straight, but have sharp bends, blind corners and other characteristics common to Devon lanes. With very minor exceptions they are unimproved, without footways or purpose-built passing bays.

3. Importance of rural lanes

3.1 Rural lanes play an important part in local life in many ways. They are obviously the routes used by their residents to access major routes and for deliveries. They also serve other purposes which are important in Lympstone:

3.1.1 ***Sustainable transport***

Significant numbers of Lympstone residents cycle to work or college or school. The lanes, being generally quiet and hence viewed as safe and suitable routes. The lanes connect at Sowden End and in the centre of Lympstone village with the Exe Valley Trail, an important NCN cycleway which links Exmouth with Topsham and Exeter. The lanes also connect with a network of footpaths, mostly unpaved, which provide ready access for pedestrians between points in the parish.

3.1.2 ***Cycling***

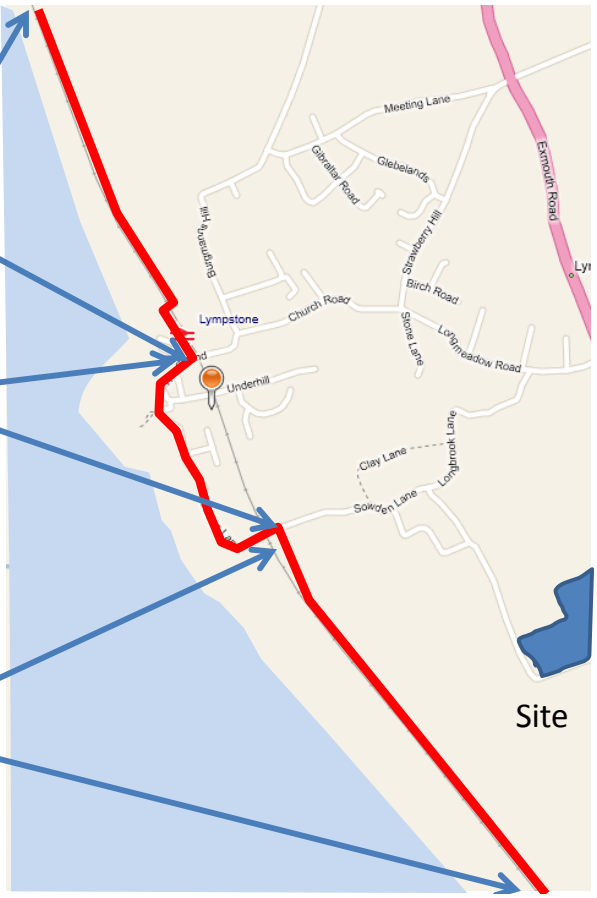
The cycleway is an important recreational asset; since opening in 2008 it has proved a major generator of cycle traffic with around 200,000 cycling and walking users a year (at an electronic count point south of Lympstone). The cycleway runs along village lanes likely to be affected by this development, as shown on Map 2.

Map 2
Location of Exe Estuary Trail
(NCN 2 cyclepath)
in Lympstone parish

Off-road (along railway line)

On-road (along main village Street & Sowden Lane

Off-road (along railway line)



3.1.3 ***Amenity use***

The lanes around Lympstone are used intensively by a variety of types of recreational user, including walkers, horse riders from the many local stables and cyclists who extend their journeys off the main cycleway route. Part of the long- distance East Devon Way path uses on-road sections along the affected lanes (in Sowden Lane and Summer Lane).

3.1.4 ***Setting***

The rural lanes in Lympstone parish, extending from the appeal site, play an important part in creating the rural feel appropriate to a rural parish.

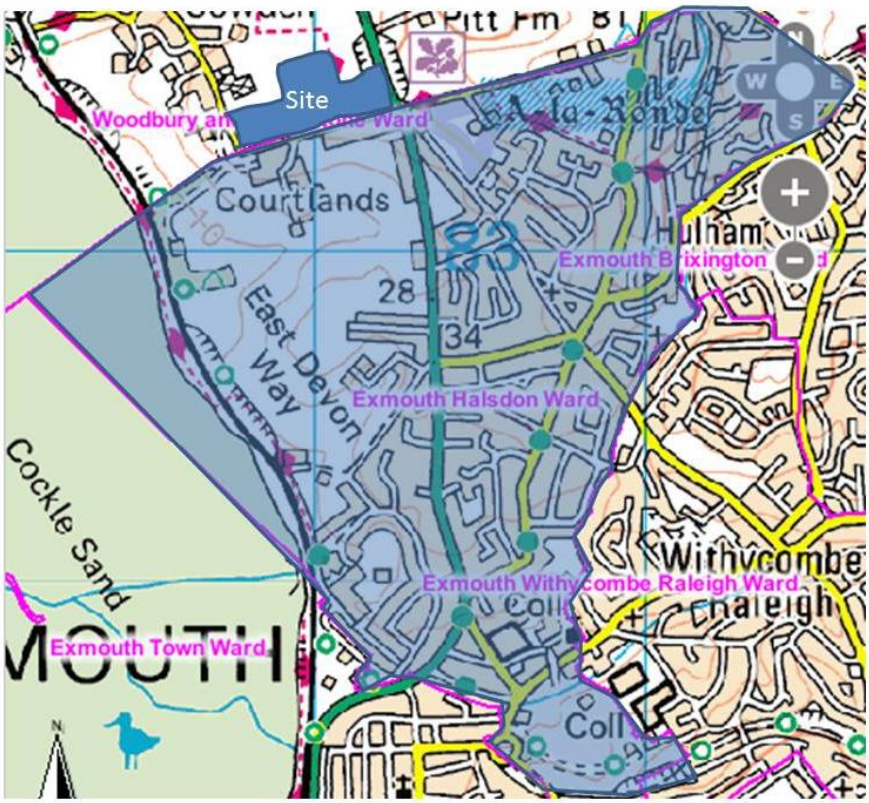
4. Summary of SLP / PBA / PCL conclusions about traffic

4.1 The transport assessment and modelling performed for the appellant by PBA and PCL has these characteristics:

- It is based on traffic capacity along the A376
- It puts a focus on traffic levels and capacity at a small number of significant junctions along the A376
- It looks predominantly at peak hour usage, capacity and impacts

- It is based on assumptions about traffic usage centred on 2001 census data from Halsdon ward in Exmouth which extends for about 1.5km south of the appeal site See Map 3

Map 3 Location of Halsdon Ward, Exmouth



- Because it is based on census data about journeys to places of employment, it focuses on single peak hour journeys and cannot consider the more complex multi-point journeys which actually happen (this is discussed below in section 5)
- It is not informed by local knowledge about actual usage of roués other than the A376; when turning traffic was counted at junctions on the A376 there was no further work to assess destinations and impacts of that local traffic.

4.2 The major findings and assumptions of relevance to the rural lanes and local roads in Lympstone from the SLP / PBA / PCL analysis are:

- that the junctions at Courtlands Cross and The Saddlers Arms (and the A376 between and beyond these junctions) have adequate capacity to cope with traffic from the proposed development
- that very little traffic coming to or from the proposed development site would use local lanes. The most recent PCL modelling puts 97% of the traffic to and from the site passing beyond Courtlands Cross (southbound) or The Saddlers Arms (northbound) Table 1 below summarises the PCL results.

- south and eastbound traffic from the site will use one of three routes through suburban Exmouth rather than Summer Lane
- there will be little or no traffic from the development towards and into Lympstone village

Table 1 PCL forecasts – 2013, from PCL analysis (November 2011)

Type of traffic *('other' is employment, GP and Nursery traffic)*	South beyond / from Courtlands Cross on A376	North beyond / from Saddlers Arms on A376	Into / from village lanes (Summer, Courtlands, Wotton, Longmeadow
am peak residential outbound	56% (48 trips)	40% (34 trips)	3% (2 trips)
am peak other outbound	86% (28 trips)	9% (3 trips)	4% (3 trips)
am peak residential inbound	56% (15 trips)	40% (11 trips)	3% (1 trip)
am peak other inbound	88% (84 trips)	9% (9 trips)	2% (2 trips)
pm peak residential outbound	56% (26 trips)	40% (18 trips)	3% (1 trip)
pm peak other outbound	86% (45 trips)	9% (5 trips)	4% (2 trips)
pm peak residential inbound	58% (34 trips)	41% (24 trips)	1% (Nil trips)
pm peak other inbound	88% (37 trips)	9% (5 trips)	4% (2 trips)
Overall %age	**72% (317 trips)**	**25% (109 trips)**	**3% (13 trips)**

nb – minor inconsistences (<2%) due to PBA/PCL roundings

4.3 The PCL analysis makes no mention of the significant local traffic flows to the National Trust's A la Ronde in Summer Lane. This receives c 45,000 visitors a year, a figure which has doubled in 5 years. Allowing for foot, bus and coach-borne visitors, this equates to c 28,000 vehicle movements (14,000 each way) per year.

4.4 Similarly, the PCL analysis makes no mention of the major traffic impact of Exmouth's holiday traffic, particularly to, from and around the Devon Cliffs / Sandy Bay site, reputedly Europe's largest caravan site.

5. Review of SLP / PBA / PCL conclusions about traffic

5.1 The traffic analysis performed by PBA and PCL uses sophisticated modelling using census data from Exmouth Halsdon ward, identified in Map 3. The demographic, employment and household car ownership characteristics of Halsdon ward are likely to be less reliable than would be desired because 10 years have elapsed since their collection and major new employment areas have grown in and around Exeter. Additionally there has been substantial growth in working from home and home-based mobile working.

5.2 Forecasting traffic distribution from a new development is not an exact science; the best results are obtained by using local knowledge and data. As Phil Townsend, Highways Development Management Officer at Devon County Council told us:

"Although it is relatively easy to establish what numbers of vehicles a site will generate, it is always difficult, if not impossible to make accurate assumptions about where vehicles will actually go when they leave the site. There are so many variables that can apply it cannot be done with any real degree of accuracy. Although the highway authority have agreed with the figures put forward by PCL in their transport report it is possible, using your familiarity with local driver behaviour in the area that you may come to a different conclusion. As I said when we met last week, the residents have much more ability to put forward figures that rely on their significant local knowledge."

5.3 The PCL analysis suggests routes through suburban Exmouth as the short and medium-distance routes that drivers to and from the proposed development site would use to access a range of destinations in an arc from eastern Exmouth to Honiton (see section 3.11 of PCL report "Traffic and Access Report; 14th November 2011"). These routes are invariably longer, slower and more complex that the obvious route eastwards from Courtlands Cross via Summer Lane, as shown by the example in Table 2 below.

5.4 PCL assert, also in section 3.11 of their document: *"… in reality, few vehicles are likely to travel by this route due to the narrow carriageway and the number of more suitable alternative routes to access the east of Exmouth".* We very strongly dispute this point, which is central to the impact of traffic from the development on local roads in the surrounding area.

Table 2 Comparison of routes to eastern Exmouth, via Summer Lane and as suggested by PCL

Comparative times & distances from Courtlands Cross *NB – speed limits adhered to*	Courtlands Cross to junction Dinan Way / Salterton Road (Lidl)	Courtlands Cross to Knowle Hill (junction B3178 / B3179)	Courtlands Cross to junction of Dinan Way / Jubilee Grove
Routes via Summer Lane			
Route distance	3.6km	5.6km	1.3km
Route time off-peak	5 minutes	6 minutes	2 minutes
Route time peak	6 minutes	7 minutes	2-4 minutes
Route number traffic lights	Nil (excluding at end	Nil	Nil; 2 junctions
Routes suggested by PCL	***Via Exeter Road, Gypsy Lane, Marpool Hill, Salterton Road***		***Via Rivermead Ave, Marley & Littlemead Lanes, Jubillee Drive***
Route 2 distance	4.4km (22% longer)	6.6km (18% longer)	2.1km (61% longer)
Route 2 time off-peak	8 minutes (60% longer)	10 minutes (66% longer)	4-6 minutes (+100%)
Route 2 time peak	11 minutes (83% longer)	14 minutes (100%	4-8 minutes (+100%)
Route 2 number traffic lights	5 (excluding at end point)	6	Nil; 5 junctions, speed bump

Data from route surveys 13 January 2012

5.4 Survey results from existing Courtlands Lane residents, reinforced by a parallel survey in Lympstone Village, underpinned by a measured comparison of route timings and matched by the recommendations of sat-nav systems, leaves no doubt that Summer Lane is a major route and will increase in importance and use if the proposed development proceeds. Analysis backed by this data and presented later (in section xx) forecasts increases in traffic in Summer Lane of c 60-70%, in contrast to the <5% forecast by PCL.

5.5 The basis of the PCL suggestion that drivers will not use Summer Lane is that narrow lanes have a deterrent effect. This is disputed – Summer Lane, though narrow (typical width c 2.7m) is very largely straight. It is used as a 'tidal' rat-run by traffic from eastern Exmouth heading for the A376 (see summary data of vehicle movements by morning and evening peaks in Table 3 below). This intensive use has created a number of ad-hoc passing places where vehicles can squeeze past each other. Table 3 compares trip times using Summer Lane with alternatives using routes in suburban Exmouth. We assert that residents and employees in the proposed development would use the shortest and quickest routes, and behave in ways similar to existing residents in the Courtlands Lane houses immediately adjacent to the development site. This is considered in more detail in sections 7 and 8.

Table 3 Summer Lane traffic flows

Survey 12 February 2012 Figures are for motorised traffic excluding motorcycles	Westbound leaving Summer Lane at Courtlands Cross	Eastbound entering Summer Lane at Courtlands Cross
am peak 07:00 – 08:00	43	18
am peak 08:00 – 09:00	37 (PCL : 41)	31 (PCL : 41)
am peak 09:00 – 10:00	24	47
Afternoon peak 14:00 – 15:00	34	50
pm peak 16:00 – 17:00	22	62
pm peak 17:00 – 18:00	21 (PCL : 30)	54 (PCL : 75)
pm peak 18:00 – 19:00	28	58
Full day (07:00 – 20:00)	**375**	**537**

Survey January 12th 2012

5.6 The PCL analysis makes an unfounded and we believe incorrect assumption (in section 3.12 of their document "Traffic and Access Report; 14th November 2011") that the proportion of traffic from and to the proposed development turning into Summer Lane could be assumed to be the same as that turning from existing north and southbound traffic on the A376. This is logically unsound as most of the 'passing' traffic will be using the A376 as a route from Exeter to Exmouth or vice versa. Traffic

originating or terminating at Courtlands Cross will display routing behaviour based on their start point; this is examined in more detail in section 6 below.

5.7 Because the PCL analysis about turning traffic at Courtlands Cross are based on the assumption that there will be little turning traffic, their conclusions about the adequacy of the junction are poorly-based. At present (see Table 3) there is more traffic using Summer Lane eastbound than westbound. We believe that this is because the exit from Summer Lane onto the A376 northbound is problematic; delays of several minutes can occur. Northbound morning traffic tends to use Wotton Lane and the signal controlled right turn onto the A376 at The Saddlers Arms instead. We believe that a Toucan crossing adjacent to Courtlands Cross as proposed by Devon CC Highways would lead drivers to expect easier exit from Summer Lane westbound and that would further increase traffic levels in Summer Lane.

5.8 PBA and PCL's predictions of the level of traffic from the site accessing Courtlands Lane west and north of the site is stated to be based on the installation of a pinch point close to where the planned estate spine road would join Courtlands Lane. This is shown as a pinch point not as a 'no entry westbound' designation enforced by a Traffic Order. We assume that such an arrangement would not deter westbound traffic and that the predicted values are understated. We believe that they are further significantly understated for reasons set out in section 7 and 8 below.

6. The importance of local routes – the 'eastern vector'

6.1 As noted above (section 5.2) PCL forecast that traffic heading away from the proposed development site (and by implication heading to the site) would use routes through suburban Exmouth rather than Summer Lane. In this section we set out evidence that:

6.1.1 That routes east from Courtlands Cross make up a significant part of expected traffic to and from the site and that use of routes east from Courtlands Cross is more significant than stated by PCL.

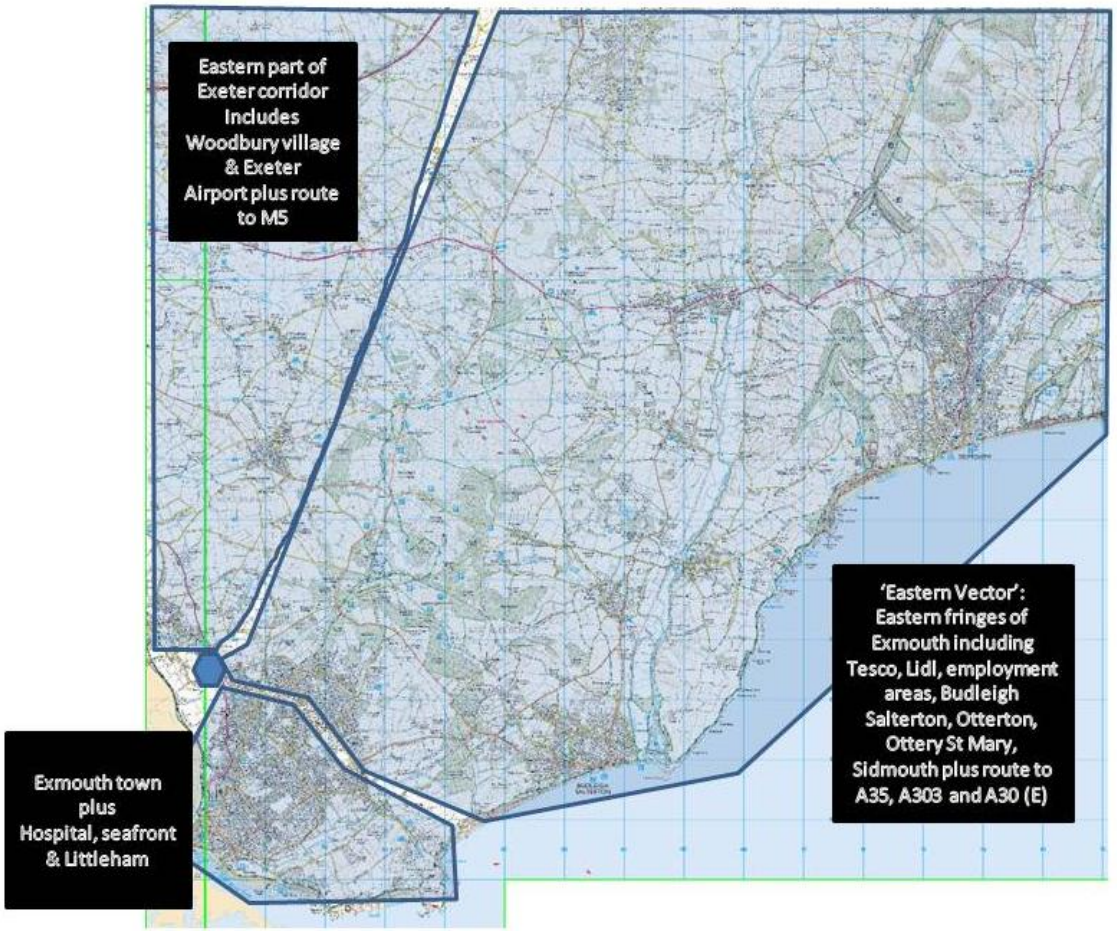
6.1.2 Use of Summer Lane as the route east from Courtlands Cross is the current route for almost all existing Courtlands Lane residents.

6.1.3 There are strong grounds, based on time, distance, ease of journey and sat-nav recommendations to expect Summer Lane to be the default route towards the southeast, east and northeast for residents and employees at the proposed development site.

Supporting survey data is presented in section 7 and forecasts of the additional traffic generated are made in section 8.

6.2 Map 3 shows the 3-fold division which occurs now for traffic from Courtlands Lane residents now and which we forecast will exist for residents and employees of the proposed development. Traffic towards Exeter (and Topsham and Woodbury, and also on longer-distance north and eastbound trips via the M5 and A30 eastbound) travels north on the A376. Traffic to Exmouth town, including seafront, hospital and station, travels south along the A376. All other routes use Summer Lane, and then Dinan Way or Hulham Road towards a range of easterly destinations in the 'eastern vector'.

Map 3 Destinations in the 'Eastern Vector; accessed via Summer Lane



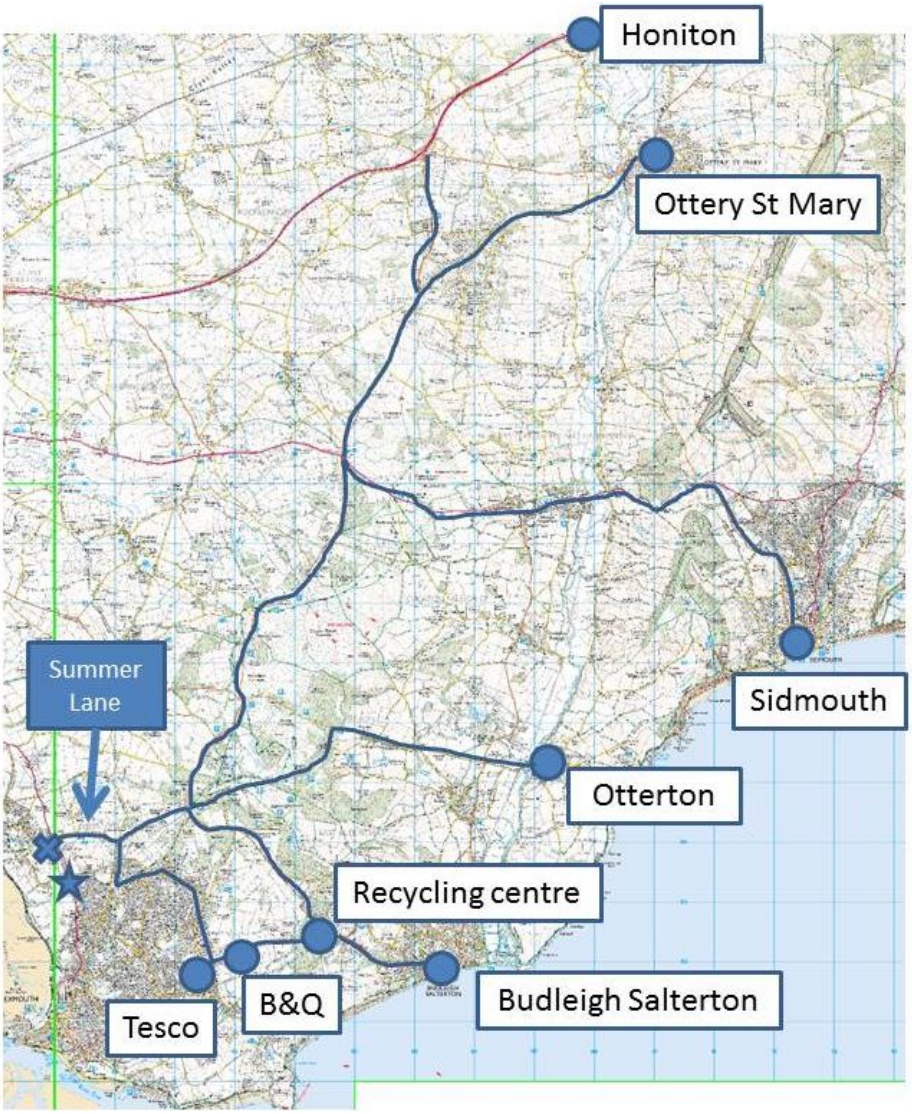
6.3 We surveyed Courtlands Lane residents and asked respondents how they reached 8 easterly destinations in this 'eastern vector', shown on Map 4. Table 4 shows the predominance of Summer Lane as the route to easterly destinations. (We found similar patterns amongst residents in Lympstone village who predominantly use Wotton Lane eastbound from The Saddlers Arms junction.)

Table 4 Routes used by residents of Courtlands Lane to reach 8 destinations

Destination	% using routes via Summer	% using other routes
Exmouth Tesco	100%	
Recycling centre	93%	7%
Exmouth B & Q	93%	7%
Budleigh Salterton	87%	13%
Otterton Mill	93%	7%
Sidmouth	87%	2%
Ottery St Mary	100%	0%
Honiton	100%	0%

Survey: January 2012 of residents living in Courtlands Lane. 15 respondents

Map 4 Routes predominantly used by residents of Courtlands Lane to reach 8 easterly destinations



6.4 We reviewed the data from the 2001 census provided by PBA relating to the place of employment of people in work resident in Exmouth Halsdon ward, and the place of residence of individuals working in Exmouth Halsdon ward. In each case around 15% of the total journeys are to or from locations in the 'eastern vector' described in section 6.2 above.

6.5 Accordingly we forecast 15% of the incoming traffic to employment and other on-site activities at the proposed development to come from the east.

6.6 The data quoted in 6.6 is not regarded by us as a reliable indicator of the distribution of outbound journeys from houses on the proposed development site, as it only covers journeys to work. The proportion of short-distance journeys to places in the eastern vector is estimated as higher, and for the forecasts made later, set at 25%

7. Car ownership and use

7.1 To be able to forecast car use accurately it is desirable to use up-to-date information and to include data not available from census data. The benefits of this are:

7.1.1 data is current – collected, analysed and reported in January 2012

7.1.2 data reflects the exact location - Courtlands Lane – rather than a different and much wider part of Exmouth

7.1.3 data is collected at a granular level by household and more detailed correlations are possible than from census data including:

- cars per household
- cars per person
- households without cars
- differences in use for retired and employed people
- places of work
- use of multi-modal transport to work
- working from home

7.1.4 data can be collected from another nearby recent development which can be used to predict traffic levels from the mix of housing (affordable / purchased) and age and household size which would be similar to that likely to exist on the proposed development. For this we have surveyed in the same detail the 2008 development at Jackson Meadow in Lympstone. This is a development of 52 dwellings sharing ACORN characteristics ("comfortably off, secure families, younger white-collar families with mortgages") with likely residents of the proposed development.

7.2 Data on car ownership from our surveys of residents in Courtlands Lane are presented here in Table 5.

Table 5 Car ownership in Courtlands Lane

Number of cars per household	
Nil	2
One	10
Two	17
Three or more	7
Total number of households surveyed	38
Total number of cars	68
Average cars per household	1.83

Data from survey January 2012

7.3 Data on car use from our surveys of residents in Courtlands Lane are presented here in Table 6.

Table 6 Car use in Courtlands Lane

Number of cars used for work	34	50% of total cars
Total trips made by car along Summer Lane per week	266	Average 3.92 per car; 7.2 per household

Data from survey January 2012

7.4 Data on place of work for Residents in Courtlands Lane are presented in Table 7.

Table 7 Place of work of residents in Courtlands Lane

Location of work	Number	Number in 'zone'
Exeter inc hospitals	13	
Sowton / Pynes Hill	2	
Clysts / Darts farm	3	
Woodbury	2	
Topsham	1	
Torbay	1	
'North direction'		***21 in 'North zone'***
Sidmouth	1	
'East direction'		***1 in 'East zone'***
Exmouth	11	
Various – local	5	

At home	3	
Local		***19 local to site***
Various – Devon-wide	1	
Various – Nationwide or abroad	2	
Other locations		***3 elsewhere***
Retired or not working	28	***28 not working***

Data from survey January 2012

7.4.1 Table 7 shows:

- that the main locations of employment are in and around Exeter and in Exmouth. Exmouth destinations are not all located sufficiently precisely (ie by postcode) to enable an assessment to be made on likely route.
- the majority of working individuals do not make use of easterly routes to work. It follows therefore that the large number of car journeys reported by these people along Summer Lane; we can conclude that these are incremental to journeys to work and are treated as such in section 8 below

7.5 It is interesting and directly relevant to the prospects for sustainable transport from the proposed development site that at present in Courtlands Lane:

7.5.1 5% (2 out of 38) households do not have a car

7.5.2 63% of households have 2 or more cars.

7.5.3 Average mileage per household per year is 13250 miles (21200 km)

7.5.4 22% of car owning households also report use of cycle and/or walking for journeys to Exmouth (distance is c 2.5km)

7.5.5 75% of car owning households also report use of shops in Lympstone village (distance is 1-1.5km). A variety of methods are used to reach the village, typically car or foot (which presumably depends on time of day, passengers, urgency, weather etc)

7.5.6 We conclude that car is the first choice and predominant mode of transport for most households.

7.5.7 The public transport alternatives available have limitations or disadvantages:

7.5.7.1 The bus service (route 57) to Exeter provides a 4 times hourly weekday daytime service. It is subject to peak hour traffic delays on the A376 and around Countess Wear and has recently been reduced to hourly in the evenings. It does not serve the significant employment areas in eastern or southern Exeter (Sowton; Marsh Barton). We are told that (except for pensioners) it is too expensive to be first choice.

7.5.7.2 The train service (Avocet Line: Exmouth – Lympstone – Topsham – Exeter Central – Exeter St Davids) is frequent and reliable, but at full capacity in peak hours. Annex A provides schedule and passenger counts. The service provides a good choice for travel to Topsham, Sowton and central Exeter, but has extremely limited car parking at Lympstone village station.

7.5.7.3 Transport interchange facilities at Topsham, Digby and Sowton and also at Exmouth are poor or non-existent. SPL claim that it is possible to travel by a combination of bus and train from the development site to central Exeter in 26 minutes; this is not possible in peak hours. Un-synchronised timetables give minimum journey times of 30-42 minutes. Not surprisingly, our survey of morning peak travellers showed no use at all of the potential connection at Topsham from bus to train. Annex A provides details of potential connections.

7.5.7.4 Two examples of car-originated multi-mode transport were reported by current residents in Courtlands Lane – car to Lympstone Village, park, then train and car to Exton, park, then train. Both locations offer the opportunity for free parking.

8. Analysis and modelling of traffic data

8.1 We have demonstrated that Summer Lane is the first and obvious choice for eastbound routes for journeys originating or terminating in the Courtlands Cross area. We now consider the impact that traffic to and from the proposed development would have on Summer Lane and Courtlands Lane. To do this we can use the following data:

8.1.1 Peak hour traffic counts at Courtlands Cross performed by PBA / PCL

8.1.2 Hourly traffic counts at Courtlands Cross performed by ourselves on 14 January 2012. These cover the full day and also count different types of motorised traffic

8.1.3 Survey data from Courtlands Lane households on routes to easterly destinations

8.1.4 Survey data from Courtlands Lane households on frequency of actual current usage of Summer Lane

8.1.5 Number of houses (and hence households) proposed in the development

8.1.6 Full time employees envisaged in office and related space in the development, and forecast data provided by PBA / PCL based on the mixed non-residential use including GP surgery and nursery.

8.1.7 Forecasts made by PBA and PCL of traffic generated by each household and per 1000 sq m of various types of non-residential space. Because these forecast are based on surveyed data from comparable developments elsewhere in the UK we can be reasonably confident of their general accuracy.

8.2 Table 8 presents our analysis using this data

Table 8 Analysis of additional traffic generated in Summer Lane by development, per week. Figures are total of both directions

Base weekly traffic movements along Summer Lane at January 2012 From full-day on-site surveys 12 January 2012.	5472	Assumption made:Full week = 6 x weekday (PCL base figure for sum of AM & PM peak is 195 movements / 2 x 8 x 6 = 4680 using assumed 6 day week and full day pro-rated to peak as for our Jan 2012 survey data
Increase in traffic from residential development - added vehicle movements for journeys to work	214	Based on 15% of inbound and outbound peak journeys to/ from development site Daily outbound am peak hour journeys (85) plus pm peak hour journeys inbound (58) x 2 x 5 x 0.15
Increase in traffic from residential development - added vehicle movements for other journeys	1925	154 households making an average of 7.2 return journeys along Summer Lane a week, less journeys to work in locations served by Summer Lane (=154 households x 0.15 x 10) = 231
Increase in traffic from office & other developments	261	Based on 15% of outbound and inbound PCL forecast traffic using Summer Lane. Using peak hour x 8 as daily figure. AM + PM peak =

		average of 42; daily forecast 328; weekly total = 1740 x 15% = 261
Our forecast of increase in weekly traffic movements over current base figure	2400 44%	*(Equates to 400 per weekday, or 50 per peak hour)*

Sources: survey data; PBA & PCL Reports.

8.2 We conclude that the increase in traffic on Summer Lane from the development would be between 40 and 50%, dramatically greater than the <5% forecast by PCL.

8.3 This level of increase would create major issues:
- for traffic management at the Courtlands Cross junction
- for road safety along Summer Lane
- for pedestrians, for whom the road would become a 'no-go' area despite being part of a designated long distance footpath, and the only pedestrian access to properties along the road
- for the National Trust, particularly for the safety of visitors to A la Ronde, many of whom will be unfamiliar with narrow rural lanes

8.4 We forecast that there will be a significant impact on Courtlands Lane. This is less easy to forecast, but we note these contributory factors:

8.4.1 Lympstone village will play an important part in the lives of many people who would reside in the the proposed development. Lympstone offers:

- The 4 nearest pubs
- The nearest primary school
- The nearest railway station
- The nearest tennis courts
- The nearest community hall
- The nearest GP surgery
- The nearest sailing club
- The nearest hairdresser
- Parish church
- Parish allotments

It seems very likely that these destinations will create both peak-hour and non-peak traffic.

8.4.2 In our opinion, and based upon traffic counts, local knowledge and experience, Courtlands Lane is, for much of the day, at or close to the 'tipping point' of traffic volumes at which safe co-existence of car, cycle,

foot and horse traffic can co-exist. This tipping point is already significantly exceeded on the stretch of Sowden Lane which carries the Exe Estuary Trail cycle route. Discussions between the parish council and Devon County Council continue to find a solution to the current problems in Sowden Lane and lower Lympstone village.

8.4.3 We forecast (see Table 9 below) a 25% increase in vehicle movements along Courtlands Lane. and Sowden Lane. This would result in the lane ceasing to be a safe 'quiet' route for pedestrians and cyclists, which is a status relied upon by SLP as part of its claims on sustainable transport.

Table 9 Analysis of additional traffic generated in Courtlands Lane by development

Movements per week		Basis of assessment
Current base	3264	PBA / PCL data for traffic into & out of Courtlands Lane and new site access (adjusted base). Peak hour average x 8 = daily figure; week = 6 x day. 68 x 8 x 6
Extra movements to/from Lympstone village to work / catch train	120	Assumes 8% of new working residents (n=150) make 2 journeys a day = 150*0.08*2*5
Extra amenity / school movements to/from Lympstone village – 50% routed via Courtlands Lane	693	Assumes average of 1 return journey per household for 75% of households per day (6 days a week) Assumes other 50% travel via Longmeadow Road =154/2*2*6*0.75
Extra journeys forecast	813 (25%)	*Nb – extra 693 journeys in Longmeadow Road represent 11% increase on weekly base of 8640 movements*

9. Wider impacts in Lympstone parish

9.1 Courtlands Lane / Sowden Lane is one of two likely routes from the development into Lympstone village, towards the various amenities and destinations in the village. (We conclude that Longbrook Lane is unlikely to be much used as it is too tortuous and indirect.)

9.2 The alternative route is via the A376, the signal-controlled crossing at The Saddlers Arms and Longmeadow Road / Church Road. We think that the choice of one route or the other will depend on time of day, exact destination and also where on the proposed development individual travellers live. It is however certain that there will be a significant adverse impact on Longmeadow Road / Church Road, particularly at peak times, including times for journeys to the village station and school and pre-school start / finish times.

9.3 Longmeadow Road is narrow and, partly because of car parking, cannot support freely flowing two-way traffic. It is already heavily used as a route to the village school. Many parents choose to drive their children to school either because of their (correct) perception of safety issues on roads with no pavements or because it is part of a multi-point journey.

9.4 The headmaster of the village school is seriously concerned about the current situation and the potential for the proposed development to exacerbate this. He comments:

> *"Traffic through our village at 8:45-9:15 and 3:15-3:45 is beyond the capacity of the current road infrastructure. This significant spike in volume is overwhelmingly due to the number of families driving to and from the school to deliver or collect their children. Whilst about 55% of our children live within the village or in village married quarters and walk/cycle to school, about 90 children* (this is about half the total roll) *arrive daily by car. Very few of these families live near enough to the school to make walking a realistic option. This situation is going to become worse with children joining us from the proposed new development. I would be very concerned about the safety of our children walking and cycling to school if the volume of traffic increases still further.*
> *It is is highly likely that a number of the families* (who would live in the proposed development) *will join our school. The two other nearby primary schools, Brixington and Exeter Road , have already advised DCC that they have no capacity to take more children than their current limit (Exeter Road 210 pupils Brixington 420 pupils) without additional capital investment, investment that DCC have not yet committed. It may well be therefore that only one or two schools, not necessarily anywhere near their new homes, will have spaces for children of these new families. In any event we live in a schooling climate where parental choice is a national and local political priority. I am confident that the majority of these families will apply to come here and, if their initial application is rejected by DCC's Admission Team, that many will appeal. Many appeals are successful (certainly the majority) and the expectation is then placed upon the school to manage the logistics of any additional children. An overcrowded local school, losing its distinctive nature as a consequence of size is another factor here, but my principle point is one of traffic management."*

9.5 Lympstone village centre currently suffers from severe traffic issues and congestion, with narrow streets, narrow or non-existent pavements, large delivery vehicles, very little on-street parking and very high occupancy of the village car park. The village

centre also accommodates the Exe Estuary Trail; the Swan public house is an enormously popular destination for recreational cyclists and walkers.

9.6 The impacts we foresee and forecast on each local road / lane are assessed in summary form in Table 9 below:

Table 9 Impact on local roads and lanes in Lympstone parish of proposed development at Courtlands Cross

	Courtlands Lane	Sowden Lane	Longbrook Lane	Roads in village	Summer Lane	Wotton Lane
Forecast increase in traffic	25%	25%	10%	10% + (depends on schooling)	40-50%	10%
Level of increased traffic	Significant increase in traffic	Significant increase in traffic	Some increase in traffic	Significant increase in traffic	Very significant increase in traffic	Some increase in traffic
Likely impact on existing users	Safety issues, loss of amenity use	Major safety issues at cyclepath; loss of amenity use	Some loss of amenity use	Safety issues; significant safety issues at cyclepath	Safety issues on lane & at Courtlands Cross jct; loss of use by pedestrians	Worsening of current traffic issues; conflict with horse riders

10. Conclusions

The chief conclusions to be drawn from our survey and analysis work are:

10.1 The SLP traffic distribution analysis, and specifically the PCL document produced in November 2011, is very significantly flawed and dramatically underestimates the impact of the development on Summer Lane. There are two specific reasons for this:

10.1.1 PCL do not take into account the intensive use of Summer Lane by existing traffic generated at and around Courtlands Cross, which we would expect to be matched by movements to and from the development site.

10.1.2 PCL are wrong in their assessment that the narrowness of Summer Lane will deter traffic and displace it onto other routes in suburban Exmouth.

10.2 The SLP / PBA and PCL traffic analysis of the impact on Courtlands Lane is seriously flawed and substantially underestimates the impact of the proposed development.

This is due to the attractiveness of Lympstone as a destination and the likely ineffectiveness of a non-regulated pinch point to deter traffic from the development accessing Courtlands Lane.

10.3 **The proposed development would have a serious and highly adverse effect on the rural lanes in Lympstone parish, in terms of traffic, safety, impact on non-motorised transport and amenity. We believe these adverse impacts are unacceptable and should result in the application to develop this site being rejected.**

Annex A Rail services and rail/bus interchange at Topsham

Rail services at peak hour (December 2011 timetable; February 2012 diagrams (ie rolling stock allocated to each service)

Avocet Line morning peak trains - capacity & loading			Measured 11/2/11		
Time from Exmouth	Scheduled formation (2012)	Scheduled capacity (2012)	Passengers from Exmouth	Passengers joining at Lympstone Village	Passengers on board leaving Topsham
7.15	4 coach (2 x 143)	184	57	5	75
7.53	4 coach (143 + 150/1)	233	169	22	242
8.23	4 coach (2 x 143)	184	152	6	191
8.53	2 coach (150/1)	141	81	14	140
9.23	2 coach (150/1)	141	51	10	72

Train / bus connections at Topsham – morning peak

Train dep Lympstone Village	Train arrives Topsham	Train arrives Exeter Central	*57 bus departs Lympstone Saddlers Arms*	*57 Bus arrives / departs Topsham station*	*57 Bus arrives Exeter (term-time schedule)*	Total scheduled journey time - train into bus	Total scheduled journey time Bus into train
06.49	06.57	07.11	*06.49*	*06.57*	*07.17*	No connection	No connection
			07.04	*07.12*	*07.32*	43 minutes	30 minutes
07.18	07.25	07.42	*07.19*	*07.28*	*07.52*	34 minutes if tight connection made	No connection
			07.30	*07.41*	*08.07*	No connection	No connection
			07.38	*07.51*	*08.22*	No connection	42 minutes
07.57	08.04	08.20	*07.54*	*08.07*	*08.42*	45 minutes if tight connection made	No connection
			08.11	*08.24*	*08.58*	No connection	38 minutes
08.27	08.34	08.49	*08.26*	*08.39*	*09.14*	47 minutes	No connection
			08.47	*08.59*	*09.28*	No connection	32 minutes
08.57	09.04	09.19	*09.07*	*09.18*	*09.39*	42 minutes	No connection

Nb – there are also 2 morning peak departures on the 'T' route – leaving Topsham towards Exeter at 07.57 and 09.00 – neither connects with a train

Version for submission 20 January 2012