West of Newton Abbot

Option Assessment Report

Sep 2014

[Final Report]

Devon County Council
County Hall
Topsham Road
Exeter
Devon
EX2 4QD

PREPARED BY
Name: Samantha Taylor
Position: Transport Planner
Date: 16th September 2014

CHECKED BY
Name: Chris Sanders
Position: Principal Transport Planner
Date: 16th September 2014

AGREED BY
Name: Chris Sanders
Position: Principal Transport Planner
Date: 16th September 2014

ACCEPTED BY
Name: Dave Black
Position: Head of Planning and Transportation
Date: 16th September 2014

Version Number	Report Stage (draft, etc.)	Prepared by	Checked by	Agreed By	Issued to / Accepted
1	Initial Draft	ST	CS	CS	DB
2	Revision	ST	CS	CS	DB
3	Revision	ST	CS	CS	DB
4	Final Report	ST	CS	CS	DB

CONTENTS

1 Introduction 1

1.1 Location and Description 1
1.2 Purpose of this Report 2
1.3 Other Reports 3

2 Current and Future Transport Issues 4

2.1 Description of the Transport Network 4
2.2 Future Development Growth 7
2.3 Future Transport Network Operation without Intervention 9

3 Potential Improvements 10

3.1 Objectives 10

4 Strategy – Sustainable Transport 11

4.1 Demand Management 11
4.2 Walking and Cycling 11
4.3 Bus 12
4.4 Rail 13
4.5 Park and Change 13
4.6 Conclusion 14

5 Strategy – Highway 15

5.1 Introduction 15
5.2 A383 and A382 Route Selection 15
5.3 A382 Options – Common Elements 16
5.4 A382 Options – Widening 18
5.5 Summary 20

6 Option to be Taken Forward 21

TABLES

Table 2-A – Mode Split in Newton Abbot 4
Table 2-B – Distribution of Travel to Work Trips From Newton Abbot 4
Table 2-C – Purpose Split on A382, A383 and A380 6
Table 2-D – Average Speeds on A382 and A383 (mph) 6
Table 5-A – Predicted Average Speeds on A382 in the AM peak 19

FIGURES

Figure 1-1 – Newton Abbot Location Map 1
Figure 1-2 – Location of Key Roads, Junctions and Developments 2
Figure 2-1 – A382 Daily Trip Length Distribution 5
Figure 2-2 – A383 Daily Trip Length Distribution 5
Figure 2-3 – PM Peak Delay 7
Figure 2-4 – Development Locations to the West of Newton Abbot 8
Figure 5-1 – Expected Distribution of traffic from Houghton Barton in AM peak 15
Figure 5-2 – Jetty Marsh II 17
Figure 5-3 – A382 Currently 18
Figure 5-4 – A382 Speed Flow Curves 19

Figure 5-5 – Ghost Island Junction – DMRB Vol 6 Section 2 Part 6 Fig 1/2 20
Figure 6-1 - Map Showing Elements of Selected Option 22

APPENDICES

Appendix A – Scheme sifting 23
Appendix B – Scheme sifting – EAST assessments. 24

1 Introduction

1.1 Location and Description

1.1.1 Newton Abbot is located in the district of Teignbridge, Devon, UK between Exeter and Plymouth. A map of Devon showing the location of Newton Abbot with respect to Exeter, Plymouth and Torbay is shown in Figure 1-1.

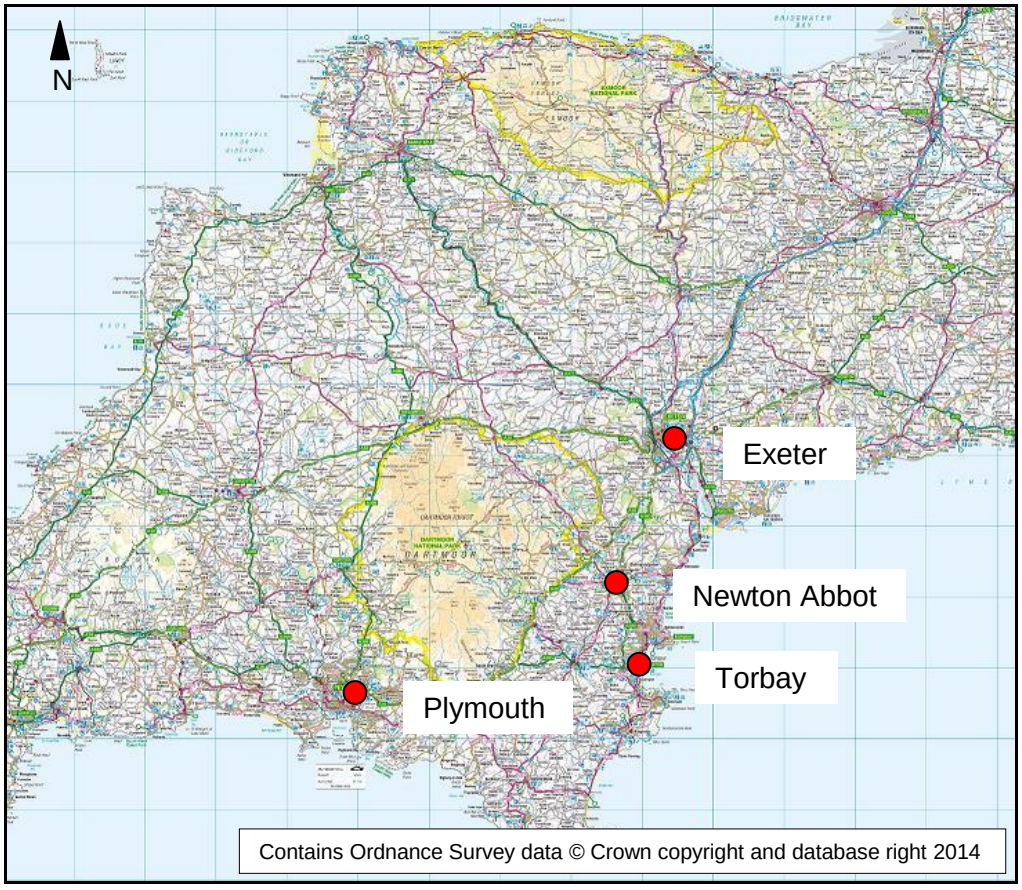

Figure 1-1 – Newton Abbot Location Map

1.1.2 Newton Abbot is well connected by the A380 to Exeter, the M5 and Exeter Airport to the north and Torbay to the south. The A38 is nearby providing links to Plymouth and Cornwall and a second link to Exeter and the M5. It also has good rail connections being on the Paddington to Penzance mainline (connecting Exeter and Plymouth) and also local services to Torbay. These connections make Newton Abbot a prime location for growth and development.

1.1.3 The A382 is located to the west of Newton Abbot between the Drumbridges Roundabout on the A38 and Churchill's roundabout in Newton Abbot town centre. The A383 is also to the west of Newton Abbot and connects with the A38 south and Ashburton. Figure 1-2 shows the locations of the A382 and A383.

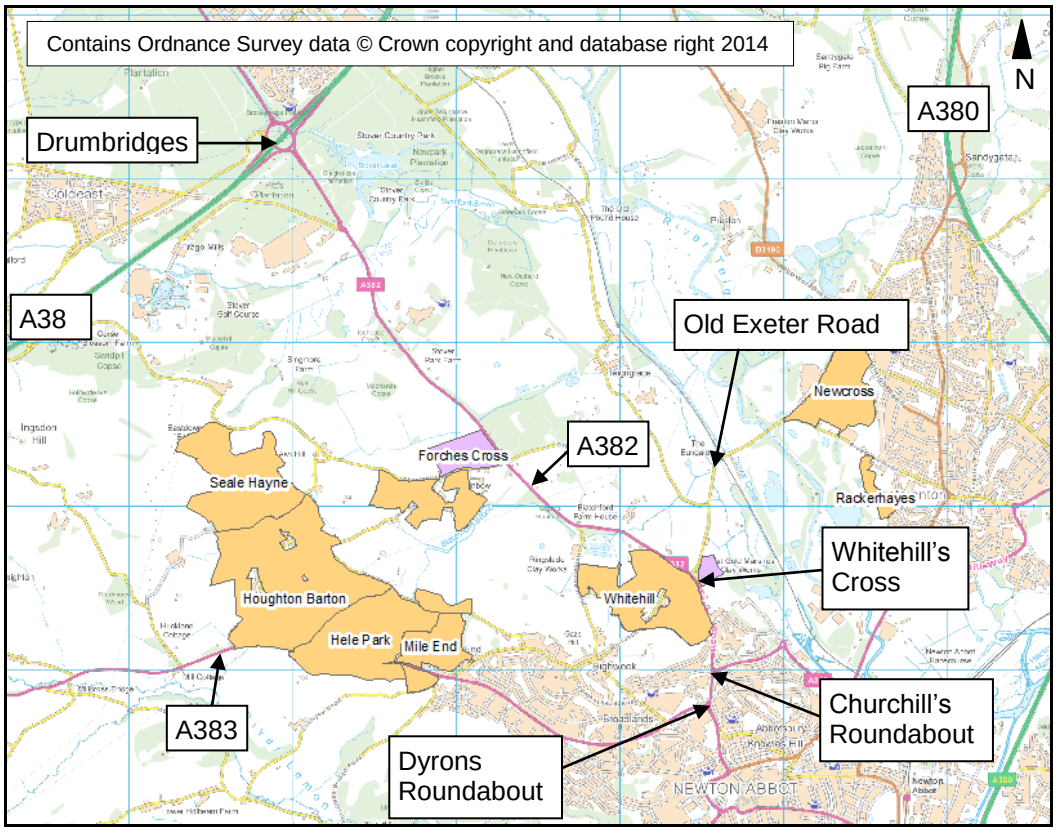

Figure 1-2 – Location of Key Roads, Junctions and Developments

1.2 Purpose of this Report

1.2.1 This Option Assessment Report (OAR) documents the Stage 1 process of identifying the need for a transport intervention and the process of option development and selection.

1.2.2 The OAR aims to address the following requirements:

- Present a sound body of analysis to provide evidence of the problems and challenges, framed within the context of the Government's goals and challenges for transport;
- Clearly state the study objectives and intended outcomes, and enough information to facilitate an understanding of the links between issues and context and the final statement of objectives;
- Define the future 'without intervention' scenario, considering potential scenarios;
- Document the process of option generation, sifting, and assessment. Decisions made on discarded options should be recorded, along with supporting evidence;
- Document the results of the subsequent assessment of potential options against the Option Assessment Framework. Evidence should be presented in relation to Strategic Case, the Value for Money Case, the Delivery Case, the Financial Case and the Commercial Case.
- Summarise the headline results across all options considered and provide conclusions on the comparative performance of options;

- Identify the better performing option(s) to be taken forward for further, more detailed Stage 2 appraisal as part of a Business Case submission to the Heart of the South West (HotSW) Local Transport Board (LTB).

1.3 Other Reports

1.3.1 This report forms part of a family of documents which will support the Value for Money (VfM) assessment of the scheme(s) recommended within this report. The reports (in chronological order) are as follows:

- **Option Assessment Report – identifies the need for scheme(s), their objectives and the process for generating options. Also provided is the methodology for assessing alternatives and the recommendations on the scheme(s) to be taken forward to detailed appraisal.**

- Appraisal Specification Report – compiled to inform decision makers and stakeholders on how the economic, environmental, social and operational assessments will be undertaken and how they will be supported by the traffic modelling work, taking account of budgetary, programme, environmental and spatial constraints.

- Data Collection Report – details the collection and analysis of all data supporting the study.

- Local Model Validation Report – provides the methodology and results for construction of the base year traffic model.

- Forecasting Report – documents the methodology and results of the future year traffic forecasts.

- Economic Assessment Report – details the approach taken to assess the monetised costs and benefits of the scheme. Benefits will include Transport Economic Efficiency (TEE) during construction, maintenance and under typical conditions; also reliability and accidents. Costs include costs associated with construction and maintenance.

- AST (Appraisal Summary Table) Report – The methodology for completing the AST tables and the source for all entries. This will also include an analysis of Social and Distributional Impacts (SDIs).

2 Current and Future Transport Issues

2.1 Description of the Transport Network

Overview

2.1.1 Travel to work Census data for people living in Newton Abbot and Kingsteignton shows that private vehicle travel is by far the most popular, with less than 10% using public transport or cycling. Private vehicle travel is also greater than the national average due to much lower percentages using public transport.

	2001 Census Newton Abbot & Kingsteignton	2011 Census Newton Abbot & Kingsteignton	2011 Census England & Wales
Single Occupancy Vehicle (Car driver/MC)	69%	69%	57%
Car share[1]	14%	13%	11%
Walk	11%	12%	11%
Bus	3%	3%	8%
Cycle	1%	2%	3%
Rail	1%	1%	10%

Table 2-A – Mode Split in Newton Abbot

2.1.2 The proportions of commute trips from Newton Abbot and Kingsteignton to Torbay, Exeter and Plymouth are shown in Table 2-B taken from 2001 Census data. This excludes people who work from home.

Employment Area	Percentage of trips from Newton Abbot & Kingsteignton
Newton Abbot	53%
Torbay	15%
Exeter	9%
Plymouth	2%
Totnes	2%
South West	4%
West	8%
East	2%
South	2%
Rural	3%

Table 2-B – Distribution of Travel to Work Trips From Newton Abbot

2.1.3 Roadside Interview (RSI) data collected in 2011 on the A382 and A383 suggests that 35-40% of traffic travelling on these routes is through traffic, not travelling to or from Newton Abbot or Kingsteignton.

2.1.4 The trip length distribution of the RSI data is shown in Figure 2-1 and Figure 2-2.

[1] Based on the assumption of two people sharing.

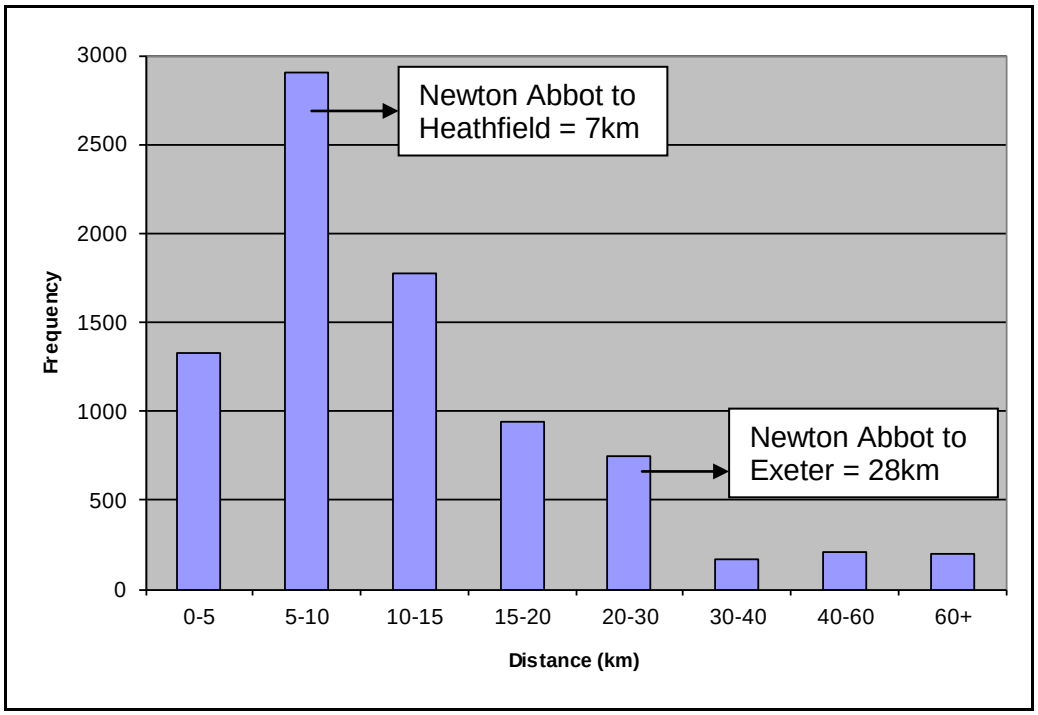

Figure 2-1 – A382 Daily Trip Length Distribution

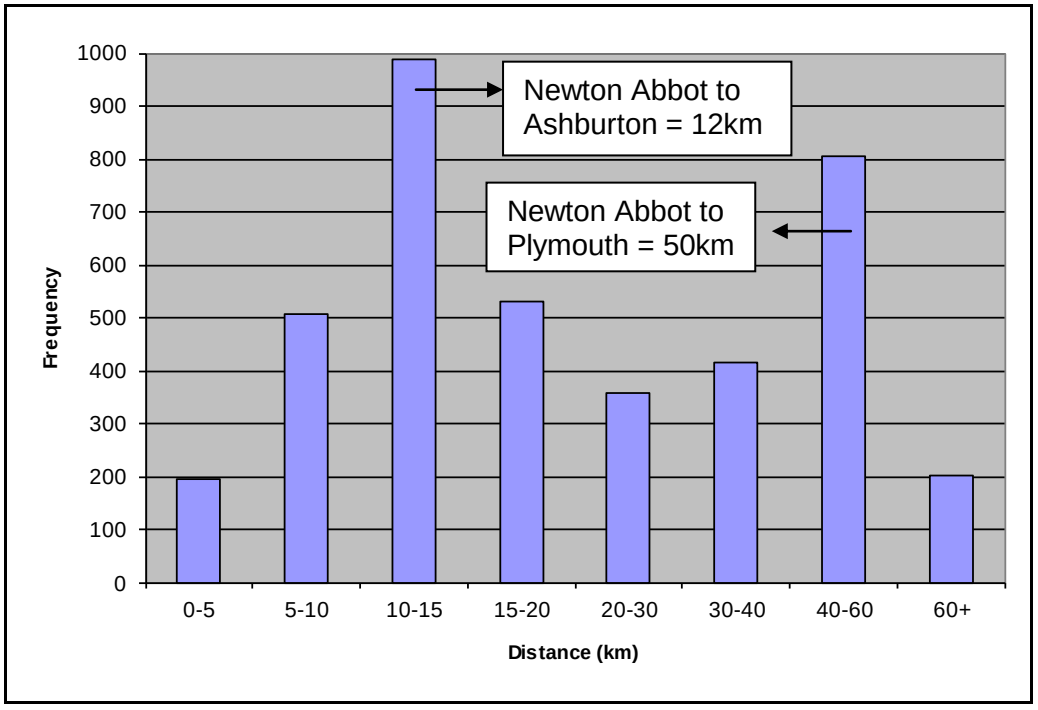

Figure 2-2 – A383 Daily Trip Length Distribution

2.1.5 The data indicates that on the A382, 50% of trips are less than 10km but only 5% are less than 3km. On the A383, only 20% are less than 10km and 1% less than 3km. There is a distinctive peak on the A383 at 40-60km which is primarily due to trips between Newton Abbot and Plymouth.

2.1.6 The RSI data also gives information about the journey purposes of trips travelling on the A382 and A383. Table 2-C shows the proportions of commute, work and non-work trips over the whole day and during peak hours. The table also includes data from an RSI on the A380.

	A382		A383		A380	
	Daily	Peak Hours	Daily	Peak Hours	Daily	Peak Hours
Commuting	28%	43%	36%	53%	23%	40%
Work	17%	16%	25%	20%	42%	38%
Non-work	55%	41%	39%	27%	35%	22%

Table 2-C – Purpose Split on A382, A383 and A380

2.1.7 During peak hours around half of the trips are commuter trips between home and work. These trips are most likely to be able to change their mode of travel.

Walking and Cycling

2.1.8 The A382 currently has no footway and is not a feasible route for pedestrians. There are also no cycle facilities and, being a national speed limit road, is not suitable for inexperienced cyclists. The A383 also has no pedestrian or cycle facilities outside of the Newton Abbot urban area. Cycling is not currently well utilised in Newton Abbot with about 2% of commute trips being made by bicycle.

Bus

2.1.9 There are some bus services serving the west of Newton Abbot, but many of these are rural services with low frequencies and no evening service. The most frequent service on the A382 is the 39 which runs an hourly service between Newton Abbot, Bovey Tracey and Exeter. The A383 is served by the 88 providing a half-hourly service to Ashburton and hourly to Totnes and Paignton. Currently bus travel in Newton Abbot only accounts for 3% of commuter trips.

Rail

2.1.10 Newton Abbot Rail Station has good connections to key destinations such as Exeter and Plymouth which relate to travel patterns observed on the A382 and A383. Rail travel however only accounts for 1% of commuter trips.

Road

2.1.11 Average speeds on the A382 and A383 in the AM peak, interpeak, PM peak and offpeak are shown in Table 2-D. Both roads are national speed limit (60 mph) between the A38 and the edge of the Newton Abbot urban area.

	A382				A383			
	AM	IP	PM	OP	AM	IP	PM	OP
Outbound	29	33	32	38	33	36	36	41
Inbound	33	33	26	39	32	35	33	40

Table 2-D – Average Speeds on A382 and A383 (mph)

2.1.12 The A382 is of a low standard with poor alignment and no verges. Despite this traffic flows are high with peak hourly directional flows observed in excess of 900 vehicles per hour. The route delivers a poor level of service due to a combination of poor alignment and high flows resulting in it being close to capacity.

2.1.13 The A383 is generally more open in appearance and carries lower traffic volumes with peak hourly directional flows observed of about 530 vehicles per

hour. This link is not considered to be at capacity however it feeds directly into Dyrons roundabout in Newton Abbot which experiences delays at peak times with traffic flows into the roundabout in the order of 2,400 vehicles in the AM peak hour.

2.1.14 The section of the A382 into Newton Abbot town centre from Churchill's Roundabout to the Highweek Street signalised junction is busy and slow moving at peak times. Typical delays in the PM peak (17:00-18:00) are shown in Figure 2-3.

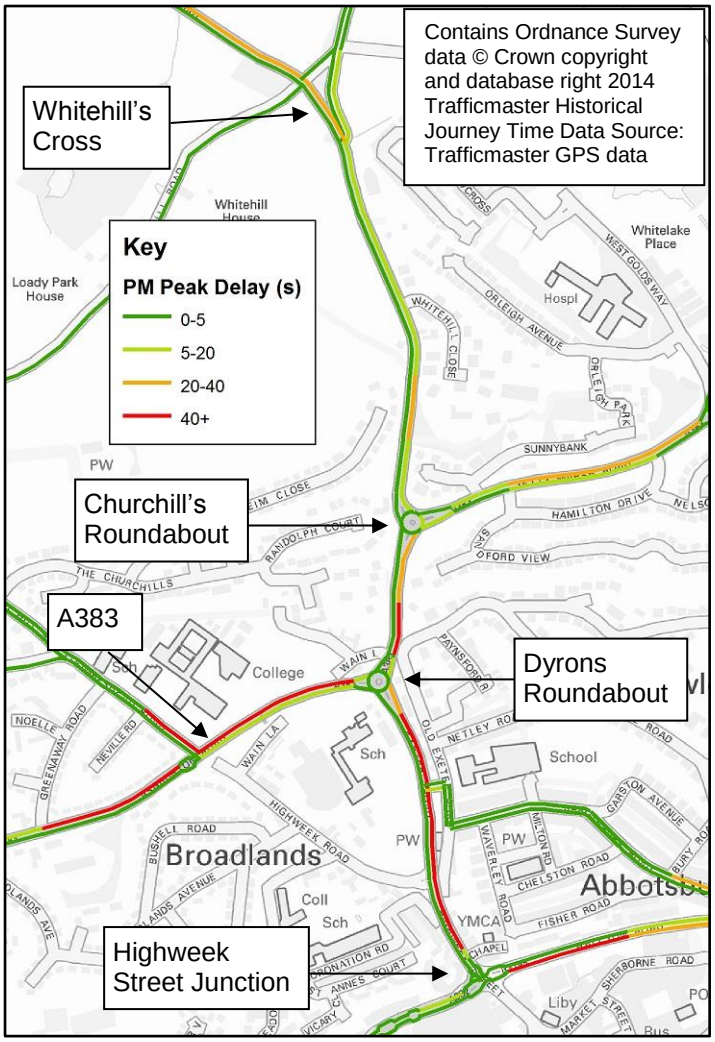

Figure 2-3 – PM Peak Delay

2.1.15 The figure shows delays on the A382 and the A383 corridors, primarily due to blocking back from the Highweek Street signalised junction.

2.1.16 Old Exeter Road connects Newton Abbot and Kingsteignton to the west carrying a two way flow of approximately 500 vehicles in the AM peak. It has a low capacity as it is narrow and includes a listed structure, the Causeway.

2.2 Future Development Growth

2.2.1 Teignbridge District Council's Submission Local Plan sets out proposed residential and employment developments in the area. In the Heart of

Teignbridge (Newton Abbot, Kingsteignton and Kingskerswell), 6,000 homes and 11,000 jobs are included.

2.2.2 In particular this features a large amount of development (2,300 homes) to the west of Newton Abbot, shown in Figure 2-4. This development will have a direct access onto the A382 and A383 with a street connecting the two through the development. This link is identified in the Infrastructure Delivery Plan (IDP) for Teignbridge as "critical" to delivering the strategic vision and objectives of the Teignbridge Local Plan. Work is currently underway to identify a suitable route from the development to the A382 and to develop the preliminary design. Funding is expected to primarily come from developers through the Community Infrastructure Levy (CIL) with other funding sources sought if necessary. The indicative route as featured in the Local Plan is shown dashed in red in Figure 2-4.

2.2.3 Also included is 18 hectares of land for employment, part of which has been allocated at Forches Cross which will be accessed from the A382. These developments will result in significant traffic growth along this corridor, from vehicles travelling to and from Newton Abbot as well as vehicles travelling further using the A38 to Exeter and Plymouth. In addition, vehicles from the other development sites in and around Newton Abbot accessing the A38 may use these routes.

2.2.4 There are additional developments coming forward to the west of Kingsteignton totalling 850 homes which will be connected to the A382 by Old Exeter Road. Traffic flows are therefore likely to increase, in particular from trips accessing the new employment site at Forches Cross.

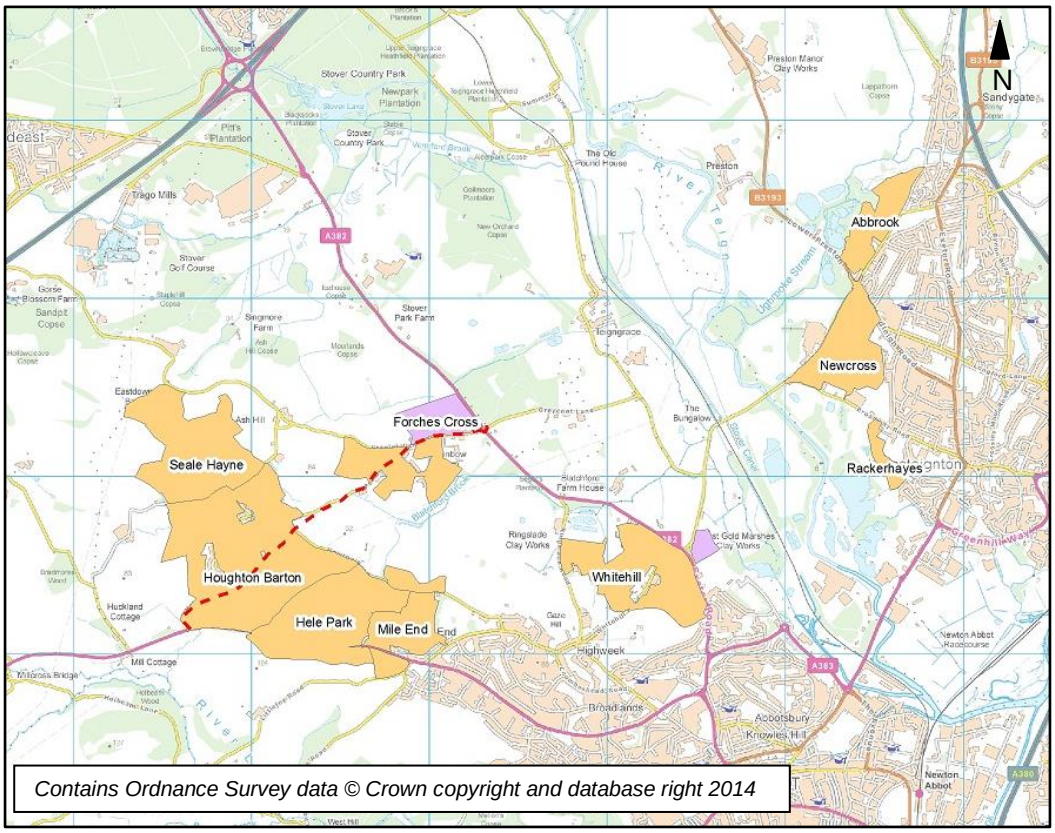

Figure 2-4 – Development Locations to the West of Newton Abbot

2.2.5 The Teignbridge Local Plan was submitted on 20th June 2013 with a public examination in September 2013. The Local Plan was adopted in May 2014. Teignbridge District Council carried out consultation on the Scoping Report for the Sustainability Appraisal in July 2009, on the "Issues and Options" in June 2010, a Preferred Options version in January 2012 and the Proposed Submission representation period started November 2012.

2.3 Future Transport Network Operation without Intervention

2.3.1 Without any interventions, the use of sustainable modes is unlikely to change significantly in Newton Abbot and also unlikely to form a significant proportion of trips from new developments. Bus reliability may deteriorate, discouraging people from using the bus. Rail is not within walking distance so will make a negligible contribution to overall mode share.

2.3.2 A preliminary multi modal transport modelling exercise has been undertaken to assess the transport impacts of the Local Plan development. This study suggests that the development may increase directional traffic flows on the A382 to 1,500 vehicles per hour and on the A383 to 1,000 vehicles per hour with the two way flow on Old Exeter Road increasing to 700 vehicles during peak times in 2033.

2.3.3 The western developments account for approximately 60% of the increase in flow on the A382 with the remainder attributable to background growth and other developments in the Newton Abbot area. On Old Exeter Road, around half of the increase in traffic is accessing the western developments which also equates to a quarter of trips travelling between the western developments and Whitehill's Cross. The other half is due to reassignment as a result of other schemes in the area such as the South Devon Link Road and Broadway Link. More detailed modelling will provide a better understanding of the impacts of traffic from new developments on this part of the network.

2.3.4 Without any interventions the A382 will become over capacity and performance will deteriorate. Traffic levels on the A383 will also increase however it is expected to be within capacity. Old Exeter Road will reach capacity and the Causeway structure will become more vulnerable to vehicles colliding with the parapets on narrow sections. Congestion in Newton Abbot will increase which will also impact on buses, increasing journey times.

2.3.5 Development at Mile End (300 dwellings) is currently under construction with a number of properties complete and Hele Park (650 dwellings), Newcross (590 dwellings) and Rackerhayes (140 dwellings) have Planning Permission. Further development would be restricted by the transport conditions and could be deemed not viable. If the transport network becomes too congested there will become a point when no more development can be approved and the area will be less attractive to developers and residents.

3 Potential Improvements

3.1 Objectives

3.1.1 The primary objectives are:

- to deliver development to the west of Newton Abbot;
- to improve journey times to the west of Newton Abbot; and
- to improve safety on the A382.

3.1.2 There is a secondary objective of encouraging the use of sustainable modes.

3.1.3 These objectives are consistent with objectives set out in the Devon and Torbay Local Transport Plan 3, and the Teignbridge Submission Local Plan.

3.1.4 Delivering new developments is essential to the economic status of Newton Abbot. The development to the west of Newton Abbot and Kingsteignton forms a large proportion of the development set out in the Teignbridge Local Plan and as such if this development cannot be delivered then other less sustainable sites may come forward.

3.1.5 Improving journey times is again directly related to economic status. Reducing the time taken to travel from the A38 into Newton Abbot will improve access, raise the quality of life for all residents and encourage more people to live and work in Newton Abbot.

3.1.6 The A382 was the 8th worst performing A road in Devon in terms of collisions over the 5 year period 2008-2012. As such potential increases in traffic along this road may lead to unacceptable casualty rates.

3.1.7 Encouraging the use of sustainable modes is fundamental to delivering future development. Reducing the number of trips made by private vehicles will help to minimise the impact on the local transport network and enable more development to be delivered.

4 Strategy – Sustainable Transport

4.1 Demand Management

4.1.1 Reducing the need to travel is a key theme when considering the future operation of the transport network. This can be applied in existing locations and at new developments to reduce pressure on transport networks and help improve the environment.

4.1.2 The Devon and Torbay Local Transport Plan (LTP) 3 features many objectives which focus around reducing the need for travel and demand management. The LTP states that the future of transport in Devon and Torbay depends on "making best use of the transport network by reducing the need to travel and encouraging people to use alternatives to the car or to carshare" and that "managing travel demand for new development is an important element in safeguarding the existing transport network".

4.1.3 LTP3 recommends that "transport assessments and travel plans will be required for new housing and employment development to make sure that sustainable transport provision is designed into new development at the planning stage". The new developments in Newton Abbot will need to create travel plans which will detail the proposals for minimising travel and promoting sustainable travel.

4.1.4 The Houghton Barton development will contain a new local centre with a range of services to encourage local and sustainable trips and reduce the need to travel. This new local centre will be the focal point for the area with community facilities such as a new school, shops, jobs and community buildings.

4.2 Walking and Cycling

4.2.1 Walking is an important mode of transport for shorter journeys, particularly within a distance of 2km and cycling plays an important role in providing journey options for short to medium length trips.

4.2.2 Newton Abbot town centre is within walking and cycling distance from Whitehill being 1.7 km away, and within cycling distance from Mile End (2.2km), Hele Park (2.7km) and Houghton Barton (3km).

4.2.3 A primary cycle route connecting Houghton Barton, Hele Park and Mile End to Newton Abbot Town Centre is planned along the A383 corridor. Studies are currently ongoing to identify the preferred route. Cycle routes to connect the Whitehill development with Newton Abbot town centre are proposed along quiet residential streets.

4.2.4 Another key employment area for the western developments is Heathfield Industrial Estate to the north. Being about 3km from the Houghton Barton development it is within cycling distance, however there is currently no cycle infrastructure along the A382 to make this an attractive choice. There are however improvements planned at Drumbridges which feature a new pedestrian/cycle bridge over the A38, due to commence construction in 2014.

4.2.5 Parallel to the A382 is a proposed leisure cycle route from Newton Abbot to Bovey Tracey via Teigngrace and Heathfield. This is identified by Devon County Council (DCC) in the Infrastructure Delivery Plan (IDP) for Teignbridge

as “important” and connects to the Wray Valley Trail between Bovey Tracey and Moretonhampstead. This route will be primarily segregated from vehicular traffic and will provide a safe route for cyclists across the A38. This proposal is for a new cycle/foot bridge crossing of the A38 650 metres north east of Drumbridges, in addition to that provided as part of the Drumbridges improvements.

4.2.6 This route however is quite remote from the proposed development. More appropriate would be a new shared pedestrian and cycle path adjacent to the A382 to connect Drumbridges with Newton Abbot and other pedestrian and cycle infrastructure. This would provide a high quality facility for sustainable modes from new developments to access employment at Heathfield and Newton Abbot, and access to Stover School. The route would be separated from the road by a verge and be wide enough for pedestrians and cyclists to share providing a safe and attractive route to encourage sustainable travel.

4.2.7 Travelling between the developments to the west of Newton Abbot and to the west of Kingsteignton by foot or cycle will become less attractive as traffic flows increase on Old Exeter Road. This route is currently a “suggested route” on the Newton Abbot cycle map and would benefit from off road pedestrian and cycle provision.

4.2.8 The section of the A383 between Houghton Barton and the Newton Abbot urban area is within or adjacent to the new development areas. It is therefore assumed that pedestrian and cycle facilities along this section will be delivered as part of the development masterplan.

4.2.9 With less than 5% of traffic currently using the A382 and A383 being trips of less than 3km, the potential for, and impact of, transferring these trips to walking and cycling would be modest. Walking and cycling improvements are only likely to be used for trips to and from the new development. However, cycling is not currently well utilised in Newton Abbot with about 2% of commute trips being made by bicycle. Opportunities for cycling from the new development should be maximised but this is unlikely to bring about a step change in travel behaviour in the Newton Abbot area.

4.3 Bus

4.3.1 Current bus facilities on the A383 are adequate but on the A382 they are primarily rural services with low frequencies. If the development to the west of Newton Abbot comes forward there will be the need for new bus services to serve the development. Routing existing services would add unacceptable time onto the route and without re-routing the existing services do not pass close enough to the new development to make bus a feasible travel option.

4.3.2 A new circular route bus service could be achieved through Houghton Barton and Whitehill. There would be two circular services, with one going in each direction along the same route. The anticipated route for these services would be along the A383, A382 and through the developments. This route would also serve Hele Park and Mile End, covering a distance of 8.6km. Each would be a minimum of 30 minute frequency, achieving a 15 minute frequency if passengers did not mind in which direction they travelled. Provisional estimates suggest that such a service would become self sufficient by the time the development is complete.

4.3.3 Options have been considered for enhanced bus priority within Newton Abbot for buses approaching the town centre from the west of Newton Abbot. Due to the constrained highway network it was considered that the options identified were likely to result in minimal improvement to bus priority. It is anticipated that further studies will be conducted to confirm this and to investigate whether any alternative options are available. Buses may however benefit from the implementation of bus priority at signalised junctions planned for 2014.

4.3.4 An improved Real Time Information (RTI) system is currently being implemented within Devon, due for completion in early 2014, which will improve bus journey time and reliability. The RTI system will track bus locations through the GPRS network to provide bus location data that can be displayed through the internet and on Smartphone Apps. This information will also be used to provide increased accurate countdown times for bus arrival at stops and bus priority at numerous traffic signal junctions throughout the region. A smartcard system which will enable contactless payment is also to be introduced which will reduce bus dwell time and improve reliability.

4.3.5 Ensuring that suitable bus services are available at new developments will be an important consideration to provide for lower incomes or those without access to a car and ensure people have choice and flexibility in how they travel and to encourage mode shift from an early stage. It will also be important to ensure developers fund bus services through Section 106 agreements for a period of time sufficient to establish services that are commercially sustainable.

4.3.6 Currently bus travel in Newton Abbot only accounts for 4% of commuter trips. Achieving a mode shift towards bus which would be enough to deliver the development would be unlikely. However, this needs to be maximised and as such bus provision should form part of the transport strategy for the new development.

4.4 Rail

4.4.1 There are opportunities to link the bus service from the new developments to Newton Abbot Rail station which might offer limited relief but will not enable development. The link between the new developments and the rail station should be specifically considered as part of the study into bus priority mentioned previously.

4.4.2 There is a rail line which runs parallel to the A382 connecting Heathfield to Newton Abbot. Currently this is only used for freight approximately once a week. Upgrading this line to carry passengers would be extremely difficult and would not open up a significant market. There would be difficulty in getting an operator to adopt a new service when the expected patronage is low. In addition, any new station location would not be close enough to the new development to be likely to be extensively used. Areas served would be limited to Heathfield, Teigngrace and Newton Abbot town centre.

4.5 Park and Change

4.5.1 A park and change site is planned on the outskirts of the Houghton Barton development at the Forches Cross site along the A382 which is identified in the IDP as “desirable”. This will provide the opportunity for people travelling to Newton Abbot from the surrounding area to park and continue their journey by

other modes including bus, cycle and car sharing. This additional bus patronage will further support the sustainability of the Houghton Barton bus service. The IDP refers to new bus services linking to Park and Change facilities serving Houghton Barton, Forches Cross, town centre bus interchange and railway station as “important”.

4.5.2 Changing mode to cycle would also become more attractive with a new shared pedestrian and cycle route along the A382 connecting Drumbridges with Newton Abbot. This facility also provides a convenient meeting point for car share journeys toward other employment centres along the A38 such as Exeter and Bristol.

4.6 Conclusion

4.6.1 Demand Management is currently featured in transport strategies for all new developments in Devon. Due to the size of the developments, bus services are also likely to be provided but the level of service should be determined in a further study. As such it is likely that these improvements will be implemented to some degree without any further interventions. Rail improvements are not viable and should not be pursued further. Walking and cycling and park and change should be considered as part of a scheme for delivering growth and promoting sustainable travel.

4.6.2 It is unlikely that any of these measures in isolation would achieve the change in travel behaviour necessary to deliver the development. A combination of measures would be deliverable but would have a modest impact.

4.6.3 A preliminary multi modal transport modelling exercise has been undertaken to assess the transport impacts of the Local Plan development. This included mode choice between private vehicle and the sustainable modes of bus, rail and cycling. The study showed that only a small number of trips transferred from private vehicle to sustainable modes as congestion increased in the Newton Abbot area.

4.6.4 The future capacity issues on the local road network would still be likely to hold up development and are summarised as follows:

- Poor quality A382 link hindering movement between western development, Newton Abbot and A38;
- Poor access to A38 from western development as movement from the A383 to A38 north is not possible; and
- Congestion issues in Newton Abbot causing delays to traffic accessing the town centre and Torbay.

4.6.5 With the combination of the above, highway improvements are an inevitable part of any strategy to deliver developments to the west of Newton Abbot. Potential improvements are described further in section 5.

5 Strategy – Highway

5.1 Introduction

5.1.1 A number of options have been considered relating to improvements to the highway to the west of Newton Abbot. These are discussed in further detail in the following section.

5.2 A383 and A382 Route Selection

5.2.1 The development will have direct access onto both the A383 and A382; however the majority of the development is located to the south adjacent to the A383. Figure 5-1 shows the expected trip distribution of traffic leaving the Houghton Barton development in the AM peak, which is predominantly to Newton Abbot.

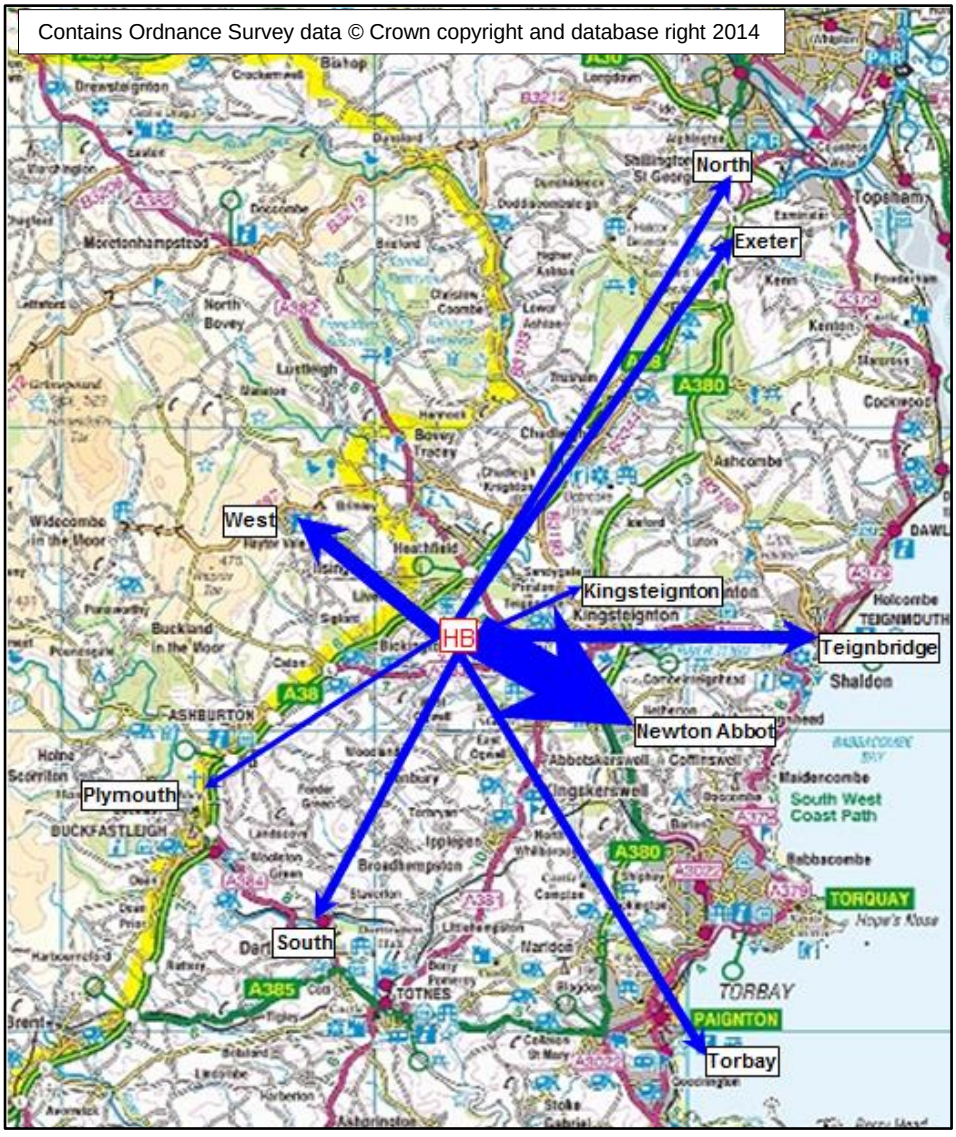

Figure 5-1 – Expected Distribution of traffic from Houghton Barton in AM peak

5.2.2 Any upgrade to the A383 would need to provide access to Newton Abbot and to the A38. In Newton Abbot this would cause increased pressure on Dyrons

roundabout and also be constrained by residential development and existing infrastructure. The existing junction of the A383 with the A38 only allows access to the south and access would be required to the north. Any option to improve the A383 would require? an upgrade of the junction with the A38. Cost aside, new slip roads would not be well used as a much shorter route exists via the A382.

5.2.3 There would be more scope for improvement options on the A382 from Drumbridges to a combination of Churchill's roundabout and Balls Corner as the route is quite rural and only becomes constrained on the approach to Churchill's roundabout. Improvements to Old Exeter Road could also be implemented to safeguard against increased traffic flows and poor structural stability of the Causeway. This would allow a flexible approach with some traffic using the A383 for local movements to the south and the higher traffic volumes to the west and north having variety of routes to choose from. The Drumbridges junction on the A38 allows all movements and planned improvements to increase capacity are expected to start on site in 2014. Improvements to the A382 would help maximise the benefits of this scheme.

5.2.4 The Teignbridge Local Plan contains reference to support for "widening the A382 Bovey Tracey road between Newton Abbot and Drumbridges roundabout at the A38 and separate cycle lanes" in order to improve connectivity and accessibility within the Heart of Teignbridge. It also states that "the widening of the A382 between Newton Abbot and Drumbridges is considered necessary to improve the capacity of the existing lanes to ensure that the road can accommodate the future growth and to provide opportunities for new cycle links."

5.2.5 It is not considered that improvements to both routes would be required to deliver the development set out in the Submission Local Plan. The A383 is expected to stay within capacity however if no improvements are made to the A382 traffic may migrate onto the A383 which is confirmed by preliminary modelling.

5.2.6 Improvements to the A382 are considered to be more publicly acceptable, more deliverable, give higher value for money and provide greater reliability and resilience of the local road network than improvements to the A383 and will be considered further.

5.3 A382 Options – Common Elements

5.3.1 In order to reduce congestion at Churchill's roundabout and to increase capacity for traffic accessing Newton Abbot town centre, a connection could be made from the A382 at Whitehill's Cross to West Golds Way. This link would help to mitigate development traffic impacts at Churchill's roundabout by providing an alternative route for traffic travelling between the A382 and Balls Corner. This would complete the second phase of the Jetty Marsh link.

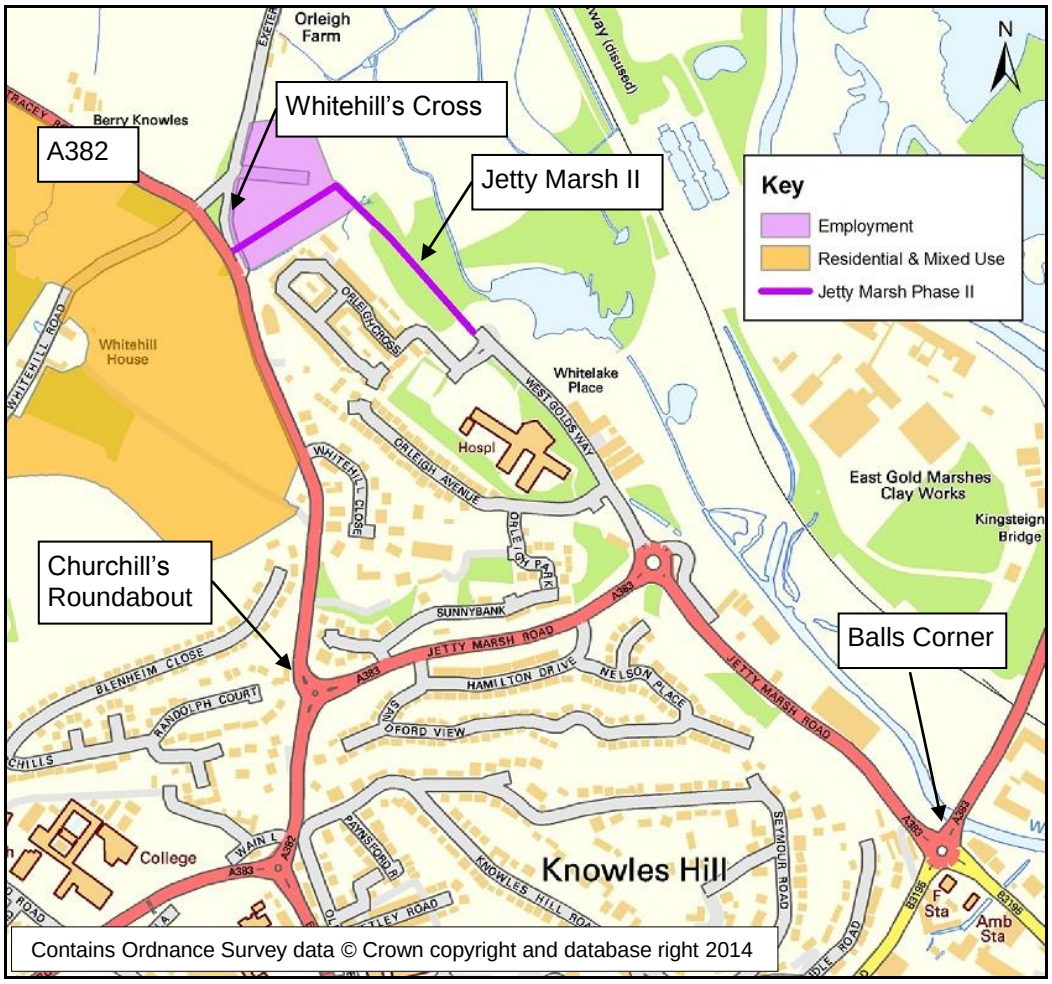

Figure 5-2 – Jetty Marsh II

5.3.2 The Jetty Marsh II link would also open up development in the hospital area with good connections to Newton Abbot and the A38.

5.3.3 Improvements to the Causeway structure on Old Exeter Road would also provide additional capacity to accommodate predicted future flows. These could be in the form of isolated widening to create a passing place at the narrowest point of the Causeway.

5.3.4 The image in Figure 5-3 shows the existing A382 road which is of substandard width and alignment. The desired appearance of the main route into Newton Abbot from the trunk road network should be more open and welcoming, making it an appropriate "gateway" for an expanding town with the ability to accommodate the proposed growth.

Figure 5-3 – A382 Currently

5.3.5 Improvements to the A382 between Drumbridges and Whitehill's Cross could be made to straighten both the horizontal and vertical alignment, widen the carriageway and create verges to increase visibility thereby increasing speed and capacity.

5.4 A382 Options – Widening

5.4.1 There are options which could be considered for widening the A382 which vary to give low, medium and high cost options. This section will consider a low cost option of widening to 7.3 metres, medium cost option of widening to 10 metres and a high cost option of constructing a dual carriageway.

5.4.2 Increased width is required to provide additional capacity and improve journey times, resilience and reliability on the A382. Figure 5-4 shows the speed flow curve of the existing road and with the widening improvement options. Also plotted are observations of speed and flow throughout the day in the AM peak, PM peak, interpeak and offpeak.

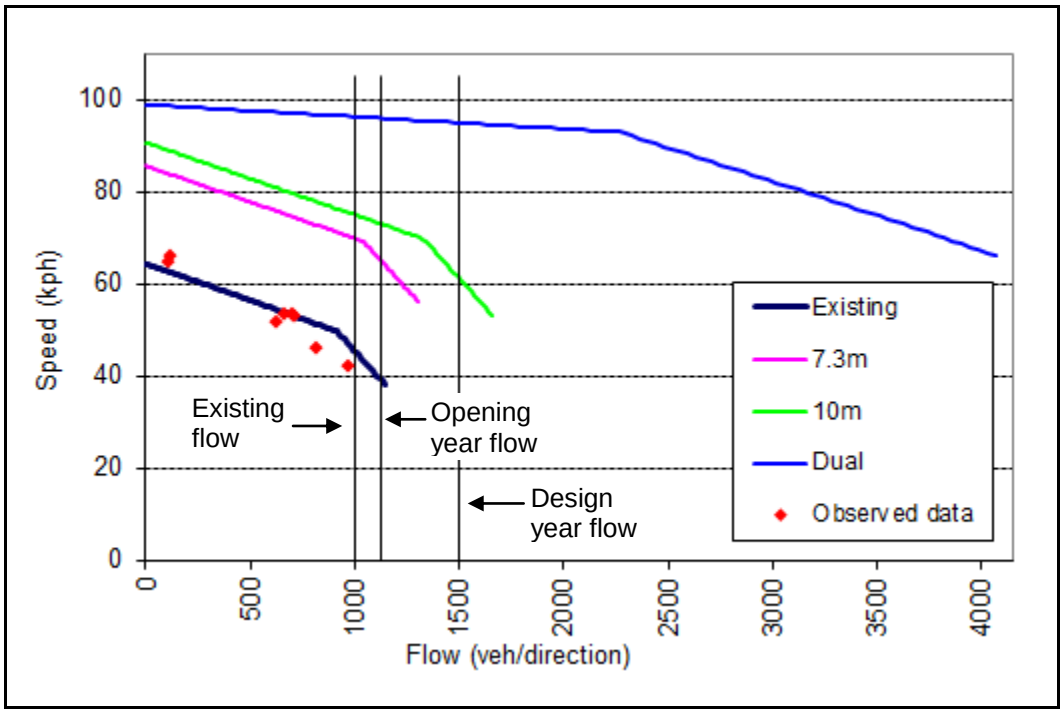

Figure 5-4 – A382 Speed Flow Curves

5.4.3 The low cost option (7.3 meters) would improve the flow on the A382 in the short term but does not achieve the necessary capacity to deliver the expected growth. The medium cost option would be within capacity at design year but approaching capacity if flows reach 1,500 veh/hr. The high cost option would provide room for further growth beyond the Local Plan period but would be significantly over providing for expected traffic flows. Utilisation of a dual carriageway may also be constrained by the transport network within Newton Abbot but would provide a dedicated route for busses. The 10 metre improvement is therefore most appropriate in terms of capacity increase.

5.4.4 Predicted speeds on the A382 with and without the 10 metre widening scheme are shown in Table 5-A below.

	Existing (2011)	Do Minimum (2033)	Do Something (2033)
Outbound	29mph	15mph	38mph
Inbound	33mph	22mph	44mph

Table 5-A – Predicted Average Speeds on A382 in the AM peak

5.4.5 Inbound in the AM peak the scheme will increase speeds and reduce journey times by over 6 minutes compared to the do minimum situation.

5.4.6 Widening the route to 7.3 or 10 metres would allow ghost island junctions to be accommodated. The use of ghost islands instead of simple T-junctions allows the flow of traffic to be maintained through the junction while vehicles are waiting to turn right therefore limiting any impact on the capacity of the road.

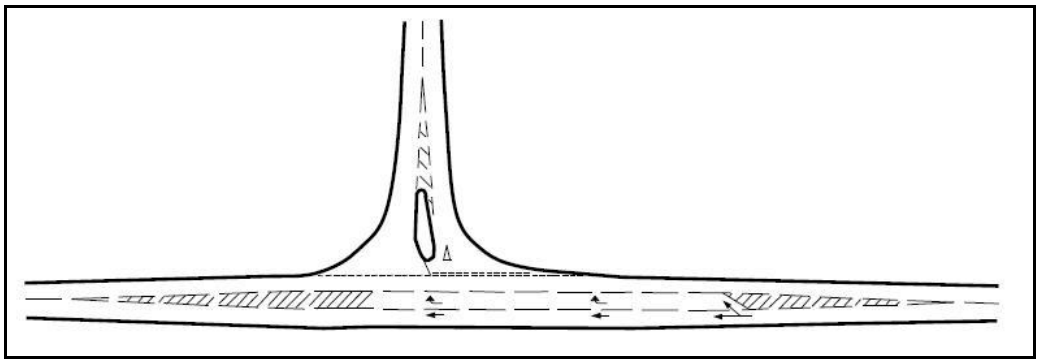

Figure 5-5 – Ghost Island Junction – DMRB Vol 6 Section 2 Part 6 Fig 1/2

5.4.7 During the AM peak there is considerable delay on the A382 northbound at the entrance to Stover School due to vehicles waiting to turn right into the school blocking ahead traffic. With a ghost island right turn there would be space for storage of right turning vehicles allowing straight ahead traffic to flow freely.

5.4.8 The high cost option would present issues for such junctions as right turners would have to cross two lanes of traffic and further widening might be required to maintain 2 lanes through junction.

5.4.9 The low and medium cost options would have a slight adverse impact on the environment with regard to land take and loss of hedgerows. The high cost option would have a significant impact on the environment requiring significantly more land.

5.5 Summary

5.5.1 Highway improvements to the A382 would complement the improvements planned at Drumbridges. The increased link capacity will allow better utilisation of the junction capacity increases at Drumbridges than would otherwise have been possible without the improvements.

5.5.2 Improvements to the A382 between Drumbridges and Whitehill's Cross alone would increase capacity and allow more traffic to reach Newton Abbot, but without Jetty Marsh II this traffic would get stuck at Churchill's Roundabout. The Jetty Marsh II scheme would route some traffic directly to Balls Corner thus allowing the additional traffic enabled by the A382 to access the town centre.

5.5.3 The Jetty Marsh II scheme alone would also not deliver the development as the demand on the A382 would exceed capacity before all the development has come forward. Including improvements Jetty Marsh II and to Old Exeter Road allows a flexible approach with local movements having a variety of routes to choose from.

5.5.4 All discussed options for A382 widening are viable but meet the objectives in different ways. The 10 metre widening from Drumbridges to Whitehill's Cross joining into the new Jetty Marsh II connection and improved Old Exeter Road provides a balance between cost and capacity.

6 Option to be Taken Forward

6.1.1 The selected option should maximise travel by foot, cycle and public transport. As previously identified, a strategy to improve these elements alone is unlikely to deliver the western developments in full.

6.1.2 In order to identify the best option to take forward, each element discussed in this report has been rated against the following headings:

- Scale of impact
- Fit with wider transport and government objectives
- Fit with other objectives
- Economic Growth
- Carbon emissions
- Socio-distributional impacts and the regions
- Local environment
- Well being
- Expected Value for Money Category
- Public acceptability
- Cost (£m)
- Flexibility of option

6.1.3 A table summarising the schemes is shown in Appendix A and detailed EAST (Early Assessment and Sifting Tool) assessments are in Appendix B. It is evident from this exercise that no single element scores well in all categories and that elements from both the sustainable transport and highway strategies will be required to achieve the objectives. In terms of the highway elements, the A382 medium cost improvement scores most favourably overall with a high value for money and high economic growth.

6.1.4 From the points discussed in previous sections the selected option has been chosen to consist of:

- Realignment and widening of the A382 to 10 metres between Drumbridges and Whitehill's Cross
- Jetty Marsh II connection
- Old Exeter Road Causeway improvements
- Shared pedestrian and cycle path along the A382
- Shared pedestrian and cycle path along Old Exeter Road
- Park and Change site at Forches Cross

6.1.5 These elements are displayed on a map within the context of new developments and the Drumbridges scheme in Figure 6-1.

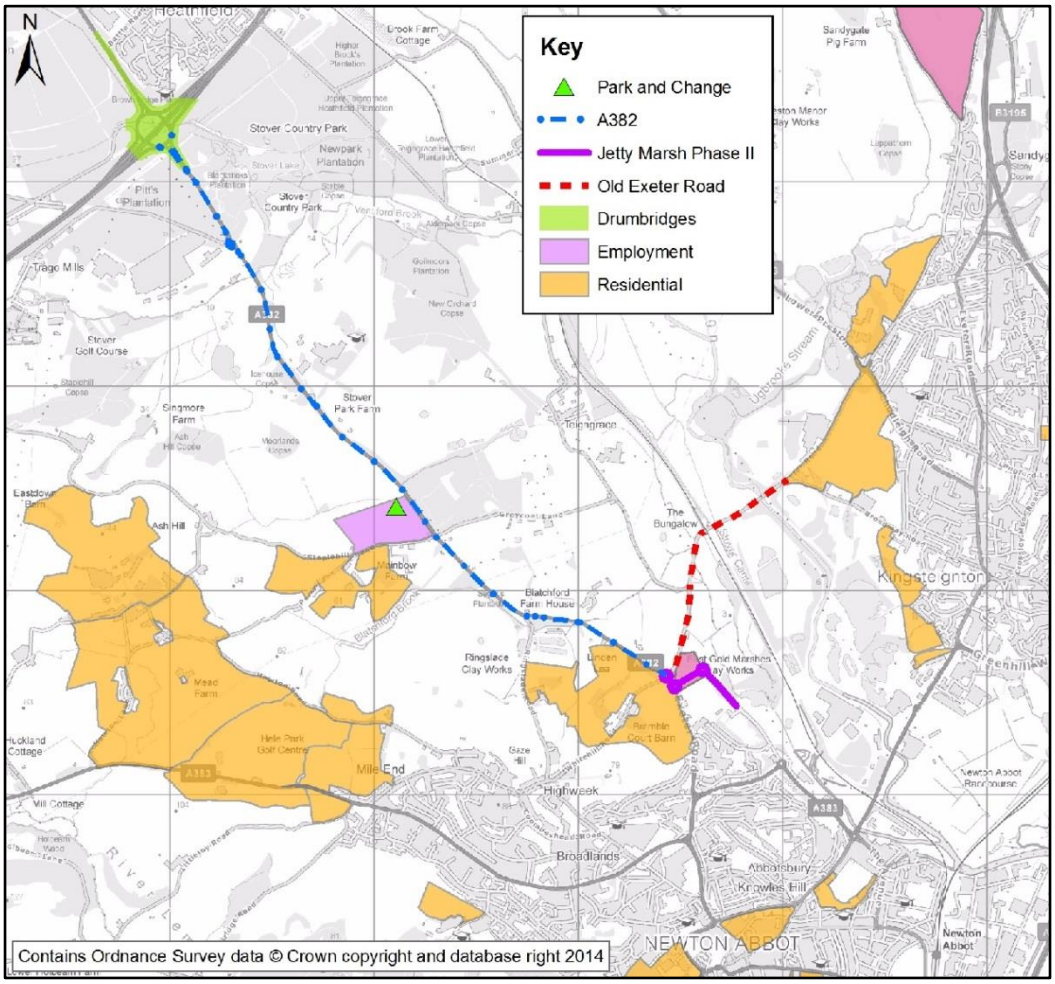

Figure 6-1 - Map Showing Elements of Selected Option

6.1.6 The bus provision discussed will form part of the strategy for delivering the development but is expected to be primarily delivered by Section 106 funding. It will therefore not be included in the selected option in terms of bidding for funding or economic assessment.

6.1.7 Pedestrian and cycle improvements discussed along the A383 corridor will be incorporated in addition to the shared path included in this option.

6.1.8 Consideration will be given to the lower cost highway option as forecasting is progressed and uncertainty is reduced.

Appendix A – Scheme sifting

Scheme Name	Scale of impact	Fit with wider transport and government objectives	Fit with other objectives	Economic Growth	Carbon emissions	Socio-distributional impacts and the regions	Local environment	Well being	Expected VfM Category	Public acceptability	Cost (£m)	Flexibility of option
Demand Management	Very small	High	Small	Red-amber	Green	Green	Green	Amber-green	High 2-4	High	0-5	High
Walking and Cycling	Very small	Very High	Small	Red-amber	Green	Green	Green	Green	Low 1-1.5	Medium	0-5	High
Bus	Small	Very High	Small	Amber	Amber-green	Green	Amber-green	Amber	Low 1-1.5	Medium	0-5	Low
Rail	Very small	Very High	Small	Red-amber	Amber-green	Amber-green	Amber-green	Amber	Poor <1	Low	5-10	Very low
A383 Highway	Medium	High	High	Red-amber	Amber	Red-amber	Amber	Amber	Medium 1.5-2	Low	10-25	Low
A382 Highway Low Cost	Medium	High	High	Amber-green	Amber	Red-amber	Amber	Red-amber	Low 1-1.5	Medium	5-10	Low
A382 Highway Medium Cost	Significant	High	Very High	Green	Amber	Red-amber	Red-amber	Red-amber	Very High 4+	High	10-25	High
A382 Highway High Cost	Significant	High	Very High	Green	Red-amber	Red-amber	Red	Red-amber	Medium 1.5-2	Low	25-50	Medium

Appendix B – Scheme sifting – EAST assessments.

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Demand Management**	
Date	31/03/2014	
Description	Encourage local and sustainable trips and reduce the need to travel through travel plans.	

Strategic

Identified problems and objectives	To reduce the amount of private vehicles leaving new developments and reduce the impact of new developments on the local highway network. Objectives: deliver development to the west of Newton Abbot, encourage the use of sustainable modes and minimise impact on the environment.	
Scale of impact	1. Small impact	This intervention is focused on behaviour change which is likely to have a small impact on overall traffic levels.
Fit with wider transport and government objectives	5. High	Fits with objectives to reduce the need to travel and encourage alternatives to car.
Fit with other objectives	2	Obj 1. Low - Unlikely to deliver development to west of Newton Abbot without additional improvements. Obj 2. Medium - Will encourage the use of sustainable modes but unlikely to achieve without investment of infrastructure. Obj 3. Medium - Minimises impact on environment.
Key uncertainties	Effectiveness of demand management.	
Degree of consensus over outcomes	Unknown	

Economic

Economic growth	**2. Red/amber**	This option alone is unlikely to deliver developments.
Carbon emissions	**5. Green**	A reduction in car trips will result in a reduction in carbon emissions.
Socio-distributional impacts and the regions	**5. Green**	Sustainable travel is available to non-car users and low income groups.
Local environment	**5. Green**	Reduction in car journeys would have a positive impact on the environment.
Well being	**4. Amber/green**	Encouraging use of sustainable modes will improve health.
Expected VfM category	2. High 2-4	Low cost and high benefits.

Managerial

Implementation timetable	4. 1-2 years	Travel plans are quick to implement.
Public acceptability	5. High	No infrastructure required so should be publicly acceptable but would not fully address access issues.
Practical feasibility	5. High	Easy to implement.
What is the quality of the supporting evidence?	3	Lots of historical evidence however precise measures and impact are subject to uncertainty.
Key risks	None	

Financial

Affordability	5. Affordable	This option is very low cost.
Capital Cost (£m)	01. None	
Revenue Costs (£m)	02. 0-5	
Cost profile	Capital cost spread over 5 years as developments come forward.	
Overall cost risk	5. Low risk	
Other costs	None	

Commercial

Flexibility of option	4	Option could be targeted at certain housing developments.
Where is funding coming from?	S106/New Homes Bonus	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Walking and Cycling**
Date	31/03/2014
Description	Pedestrian and cycle route adjacent to the A382 connecting Drumbridges with Newton Abbot

Strategic

Identified problems and objectives	Provide pedestrian and cycle infrastructure to connect Heathfield with Newton Abbot and new development areas to the west of Newton Abbot. Objectives: deliver development to the west of Newton Abbot, encourage the use of sustainable modes and minimise impact on the environment.	
Scale of impact	1. Small impact	The current mode share for sustainable modes is low along A382 and is unlikely to change significantly to reduce congestion.
Fit with wider transport and government objectives	5. High	Encourages use of sustainable modes.
Fit with other objectives	2	Obj 1. Low - Unlikely to deliver development to west of Newton Abbot without additional improvements. Obj 2. High - Will encourage the use of sustainable modes. Obj 3. Medium - Minimises impact on environment by encouraging sustainable modes but some loss of habitat may be necessary.
Key uncertainties	Uptake of cycling in response to new infrastructure.	
Degree of consensus over outcomes	Unknown	

Economic

Economic growth	**2. Red/amber**	This option is unlikely on its own to deliver development.
Carbon emissions	**5. Green**	Use of sustainable modes instead of car will lead to a reduction in carbon emissions.
Socio-distributional impacts and the regions	**5. Green**	Improvements for pedestrians and cyclists which will include lower income groups.
Local environment	**5. Green**	Use of sustainable modes instead of car will have a positive environmental impact. Small scale construction so minimal loss of habitat.
Well being	**5. Green**	Increased walking and cycling will bring health benefits. Segregation of pedestrians and cyclists will improve safety.
Expected VfM category	4. Low 1-1.5	High capital cost compared to user benefits which are difficult to quantify.

Managerial

Implementation timetable	5. 2-5 years	Scheme would be fairly straight forward to design and build.
Public acceptability	3	Some areas of new developments would not be served very well by the route but it would provide a facility where currently there is none
Practical feasibility	4	Scheme would be fairly straight forward to design and build and works can be completed offline keeping the A382 open.
What is the quality of the supporting evidence?	1. Low	No detailed consideration has been given at this stage.
Key risks	None	

Financial

Affordability	5. Affordable	Depends on developer funding.
Capital Cost (£m)	02. 0-5	
Revenue Costs (£m)	01. None	
Cost profile	Capital cost spread over 1 year.	
Overall cost risk	5. Low risk	
Other costs	None	

Commercial

Flexibility of option	4	Option could be delivered in two sections - between Drumbridges and new development and from new development to Newton Abbot.
Where is funding coming from?	Capital cost: LEP/SLGF with LTP and/or CIL/S106/New Homes Bonus.	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Bus**
Date	31/03/2014
Description	New bus services routing from new developments to the west of Newton Abbot to Newton Abbot town centre plus a park and change site.

Strategic

Identified problems and objectives	To provide an alternative to car travel for journeys to Newton Abbot from new developments. Objectives: deliver development to the west of Newton Abbot, encourage the use of sustainable modes and minimise impact on the environment.	
Scale of impact	2	Current bus mode share is low and is unlikely to change significantly.
Fit with wider transport and government objectives	5. High	Fits with objectives to reduce car travel and increase the use of public transport.
Fit with other objectives	2	Obj 1. Low - Unlikely to deliver development to west of Newton Abbot. Obj 2. Medium/High - encourages the use of bus travel and car sharing. Obj 3. High - construction only required for Park and Change site which will be part of a site allocated for development in the Local Plan.
Key uncertainties	The bus service will be affected by congestion reducing reliability and patronage.	
Degree of consensus over outcomes	Unknown	

Economic

Economic growth	**3. Amber**	Connectivity will be slightly improved but buses are vulnerable to reliability and resilience problems.
Carbon emissions	**4. Amber/green**	Overall veh-km will be reduced with fewer car trips.
Socio-distributional impacts and the regions	**5. Green**	New bus services will improve accessibility for non car users.
Local environment	**4. Amber/green**	Positive impact on local environment due to buses reducing overall numbers of cars.
Well being	**3. Amber**	Marginal improvement in safety due to fewer cars.
Expected VfM category	4. Low 1-1.5	Benefits expected to be low due to low patronage numbers.

Managerial

Implementation timetable	5. 2-5 years	Relatively fast implementation of bus service but Park and Change may take longer and depend on development.
Public acceptability	3	
Practical feasibility	3	Improved bus services are straightforward to implement.
What is the quality of the supporting evidence?	2	Unknown patronage predictions and usage of park and change site however existing figures strongly suggest failure.
Key risks	Possibility that service will be affected by congestion reducing reliability and patronage and the service becomes unsustainable. Ongoing revenue requirements.	

Financial

Affordability	4	Depends on developer funding
Capital Cost (£m)	02. 0-5	Cost of constructing park and change site.
Revenue Costs (£m)	02. 0-5	Bus service running costs.
Cost profile	£330,000 per year until development is complete when it will be self sufficient.	
Overall cost risk	5. Low risk	
Other costs	Service not self sufficient	

Commercial

Flexibility of option	2	Bus service levels can be scaled up or down.
Where is funding coming from?	Revenue Cost: Developer funding Capital cost: LEP with LTP and/or CIL/S106/New Homes Bonus.	
Any income generated? (£m)	Yes	02. 0-5

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**Rail**
Date	31/03/2014
Description	Upgrade Newton Abbot to Heathfield rail line for passenger trains and put on new service.

Strategic

Identified problems and objectives	To provide an alternative to car travel for journeys to Newton Abbot from new developments. Objectives: deliver development to the west of Newton Abbot, encourage the use of sustainable modes and minimise impact on the environment.	
Scale of impact	1. Small impact	Expected patronage very low and therefore small impact.
Fit with wider transport and government objectives	5. High	Fits with objectives to increase the use of public transport.
Fit with other objectives	2	Obj 1. Low - Unlikely to deliver development to west of Newton Abbot Obj 2. Medium - will encourage the use of sustainable modes but patronage expected to be low. Obj 3. Medium - minimises impact on environment
Key uncertainties	Viability of upgrading the rail line, patronage levels.	
Degree of consensus over outcomes	Unknown	

Economic

Economic growth	**2. Red/amber**	Connectivity will be slightly improved but not new station location would not be close enough to new development.
Carbon emissions	**4. Amber/green**	Slight reduction in veh-km due to fewer car trips.
Socio-distributional impacts and the regions	**4. Amber/green**	Improves accessibility for non car users.
Local environment	**4. Amber/green**	Slight positive impact on local environment due to fewer car trips.
Well being	**3. Amber**	Marginal improvement in safety due to fewer cars.
Expected VfM category	5. Poor <1	Likely to have a high cost and very low benefits.

Managerial

Implementation timetable	6. 5-10 years	Significant work involved in designing rail upgrade. Would only be potentially viable when a significant amount of development is complete
Public acceptability	2	Public unlikely to see this option as a good value for money.
Practical feasibility	2	Upgrading rail line likely to be difficult.
What is the quality of the supporting evidence?	1. Low	No detailed consideration has been given at this stage.
Key risks	Third party involvement with Network Rail	

Financial

Affordability	2	Depends on developer funding.
Capital Cost (£m)	03. 5-10	
Revenue Costs (£m)	01. None	
Cost profile	Capital cost spread over two years.	
Overall cost risk	5. Low risk	
Other costs	None	

Commercial

Flexibility of option	1. Static	Rail line is fixed
Where is funding coming from?	Capital cost: LEP with LTP and/or CIL/S106/New Homes Bonus.	
Any income generated? (£m)	Yes	02. 0-5

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**A383 Highway**
Date	31/03/2014
Description	Upgrade of the A383 including north facing slips onto the A38

Strategic

Identified problems and objectives	Provide improvements to the A383 to provide a better connection between A38, Newton Abbot and new developments. Objectives: deliver development to the west of Newton Abbot, encourage the use of sustainable modes and minimise impact on the environment.	
Scale of impact	3	Expected to improve access from western developments to Newton Abbot improving journey times.
Fit with wider transport and government objectives	4	Helps deliver development.
Fit with other objectives	4	Obj 1. High - helps to deliver development to the west of Newton Abbot. Obj 2. Low - does not encourage the use of sustainable modes - other schemes already being considered along the A383 corridor. Obj 3. Low - land would be required for the new slip roads and A383 widening.
Key uncertainties	Scheme does not cater for key movements from development leading to congestion building on A382 corridor and Newton Abbot which would be a barrier to development.	
Degree of consensus over outcomes	Unknown	

Economic

Economic growth	**2. Red/amber**	Capacity increase is unlikely to be enough to deliver development.
Carbon emissions	**3. Amber**	Improved vehicle flow on A383 but little impact on queuing overall.
Socio-distributional impacts and the regions	**2. Red/amber**	Benefits weighted towards car travel.
Local environment	**3. Amber**	Loss of land and hedgerows due to widening.
Well being	**3. Amber**	Marginal improvement to safety but does not encourage sustainable modes
Expected VfM category	3. Medium 1.5-2	The scheme would be costly and is not expected to have a very high value for money

Managerial

Implementation timetable	6. 5-10 years	No design work has yet been undertaken.
Public acceptability	2	Scheme does not address key capacity problems in west of Newton Abbot. Large environmental impact.
Practical feasibility	2	Constructing new slip roads on A38 would be difficult.
What is the quality of the supporting evidence?	1. Low	No detailed consideration has been given at this stage.
Key risks	Third party involvement from Highways Agency.	

Financial

Affordability	2	Funding would need to be sought
Capital Cost (£m)	04. 10-25	
Revenue Costs (£m)	01. None	
Cost profile	Capital cost spread over 2 years	
Overall cost risk	5. Low risk	
Other costs	None	

Commercial

Flexibility of option	2	Improvements could be divided into sections.
Where is funding coming from?	Capital cost: LEP with LTP and/or CIL/S106/New Homes Bonus.	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**A382 Low Cost**
Date	31/03/2014
Description	Widening of A382 to 7.3 metres and construction of Jetty Marsh II link road.

Strategic

Identified problems and objectives	Provide additional capacity on the A382 corridor. Objectives: deliver development to the west of Newton Abbot, encourage the use of sustainable modes and minimise impact on the environment.	
Scale of impact	3	Expected to reduce congestion and increase capacity to provide for future developments.
Fit with wider transport and government objectives	4	Addresses key bottleneck. Reliability benefits accrued by buses encourages sustainable travel.
Fit with other objectives	4	Obj 1. Medium - helps to deliver development but will not deliver the full allocation. Obj 2. Medium - use of sustainable modes encouraged by improved bus reliability. Obj 3. High - small scale widening minimises impact on environment.
Key uncertainties	Only widening to 7.3m may not give the capacity increase required to deliver development.	
Degree of consensus over outcomes	Unknown	

Economic

Economic growth	**4. Amber/green**	Connectivity will be improved between new developments, Newton Abbot and the rest of the country but may not achieve required capacity increase.
Carbon emissions	**3. Amber**	Improved traffic flow on A382 and reduced queuing due to JMII link but scheme is likely to encourage higher vehicle-kms
Socio-distributional impacts and the regions	**2. Red/amber**	Some improvements for bus users due to increased reliability, however benefits will be weighted more towards higher income groups.
Local environment	**3. Amber**	Minimal loss of hedgerows due to widening but loss of land at JMII.
Well being	**2. Red/amber**	Marginal improvement to safety but does not encourage sustainable modes
Expected VfM category	4. Low 1-1.5	Low cost but not expected to accrue significant benefits

Managerial

Implementation timetable	6. 5-10 years	Conceptual design work has been undertaken but no detailed design.
Public acceptability	3	A382 is known as a route with poor and unreliable journey times but scheme may not deliver all development.
Practical feasibility	3	On-line improvements will require single lane closure of A382 to construct.
What is the quality of the supporting evidence?	2	A capacity assessment has been carried out.
Key risks	None	

Financial

Affordability	5. Affordable	Scheme would be relatively low cost compared to other widening options.
Capital Cost (£m)	03. 5-10	
Revenue Costs (£m)	01. None	
Cost profile	Capital cost spread over 2 years	
Overall cost risk	5. Low risk	
Other costs	None	

Commercial

Flexibility of option	2	Option not very flexible as benefits would be significantly reduced if any element were omitted.
Where is funding coming from?	Capital cost: LEP with LTP and/or CIL/S106/New Homes Bonus	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**A382 Medium Cost**
Date	31/03/2014
Description	Widening and realignment of the A382 and construction of Jetty Marsh II link road.

Strategic

Identified problems and objectives	Provide additional capacity on the A382 corridor. Objectives: deliver development to the west of Newton Abbot, encourage the use of sustainable modes and minimise impact on the environment.	
Scale of impact	5. Significant impact	Increased capacity will improve access to Newton Abbot from the A38 and from new developments.
Fit with wider transport and government objectives	4	Helps deliver development. Addresses key bottleneck. Reliability benefits accrued by buses encourages sustainable travel.
Fit with other objectives	5. High	Obj 1. High - helps to deliver development to the west of Newton Abbot. Obj 2. Medium - could easily be part of a package of improvements on the A382 corridor. Obj 3. High - minimal impact as widening existing carriageway.
Key uncertainties	None	
Degree of consensus over outcomes	Unknown	

Economic

Economic growth	**5. Green**	Connectivity will be improved between new developments, Newton Abbot and the rest of the country
Carbon emissions	**3. Amber**	Improved traffic flow on A382 and reduced queuing due to JMII link but scheme is likely to encourage higher vehicle-kms
Socio-distributional impacts and the regions	**2. Red/amber**	Some improvements for bus users due to increased reliability, however benefits will be weighted more towards higher income groups.
Local environment	**2. Red/amber**	Some loss of hedgerows due to widening and land at JMII.
Well being	**2. Red/amber**	Marginal improvement to safety but does not encourage sustainable modes
Expected VfM category	1. Very High >4	High user benefits will significantly outweigh the cost of the scheme giving a BCR greater than 4.

Managerial

Implementation timetable	6. 5-10 years	Scheme is at preliminary design stage and economic case is underway.
Public acceptability	4	A382 is known as a route with poor and unreliable journey times
Practical feasibility	4	Some widening works can be completed offline keeping the A382 open during the works.
What is the quality of the supporting evidence?	3	The economic case is currently being developed.
Key risks	None	

Financial

Affordability	4	Scheme in reserve list for LTB funding.
Capital Cost (£m)	04. 10-25	
Revenue Costs (£m)	01. None	
Cost profile	Capital cost spread over 2 years	
Overall cost risk	5. Low risk	
Other costs	None	

Commercial

Flexibility of option	4	Some elements of the scheme could be delivered separately but the benefits would be reduced.
Where is funding coming from?	Capital cost: LEP with LTP and/or CIL/S106/New Homes Bonus	
Any income generated? (£m)	No	

Early Assessment and Sifting Tool (EAST) - *Expanded Print View*

Option Name/No.	**A382 High Cost**
Date	31/03/2014
Description	Dualling and realignment of the A382 and construction of Jetty Marsh II link road.

Strategic

Identified problems and objectives	Provide additional capacity on the A382 corridor. Objectives: deliver development to the west of Newton Abbot, encourage the use of sustainable modes and minimise impact on the environment.	
Scale of impact	5. Significant impact	Increased capacity will improve access to Newton Abbot from the A38 and new developments.
Fit with wider transport and government objectives	4	Helps deliver development. Addresses key bottleneck. Reliability benefits accrued by buses encourages sustainable travel.
Fit with other objectives	5. High	Obj 1. High - helps to deliver development to the west of Newton Abbot. Obj 2. Medium - could easily be part of a package of improvements on the A382 corridor. Obj 3. Medium - widening existing carriageway so less impact than a new road but still considerable land take.
Key uncertainties	Significantly increasing capacity on the A382 may cause further congestion issues within Newton Abbot.	
Degree of consensus over outcomes	Unknown	

Economic

Economic growth	**5. Green**	Connectivity will be improved between new developments, Newton Abbot and the rest of the country
Carbon emissions	**2. Red/amber**	Improved traffic flow on A382 and reduced queuing due to JMII link but scheme is likely to encourage higher vehicle-kms
Socio-distributional impacts and the regions	**2. Red/amber**	Some improvements for bus users due to increased reliability, however benefits will be weighted more towards higher income groups.
Local environment	**1. Red**	Considerable habitat loss due to widening and land at JMII
Well being	**2. Red/amber**	Marginal improvement to safety but does not encourage sustainable modes
Expected VfM category	3. Medium 1.5-2	High user benefits but significant construction cost resulting in a low BCR.

Managerial

Implementation timetable	6. 5-10 years	Significant design work required.
Public acceptability	2	A382 is known as a route with poor and unreliable journey times however the significant land take is unlikely to be widely accepted.
Practical feasibility	2	Some widening works can be completed offline allowing A382 to be kept open during construction however properties may be lost.
What is the quality of the supporting evidence?	2	A capacity assessment has been carried out.
Key risks	None	

Financial

Affordability	1. Not affordable	High scheme cost and no funding secured.
Capital Cost (£m)	05. 25-50	
Revenue Costs (£m)	01. None	
Cost profile	Capital cost spread over 2 years.	
Overall cost risk	2	
Other costs	None	

Commercial

Flexibility of option	3	The entire length would need to be widened to avoid bottlenecks.
Where is funding coming from?	Capital cost: LEP with LTP and/or CIL/S106/New Homes Bonus	
Any income generated? (£m)	No	