

Heart of the South West Local Transport Board

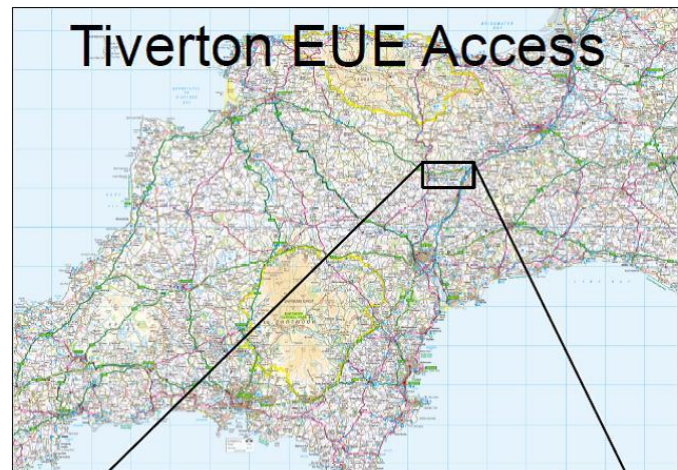
Scheme Prioritisation Proforma

Option Name: Tiverton Access Routes and M5 J27 Improvements

Date: 8th May 2013

Location:

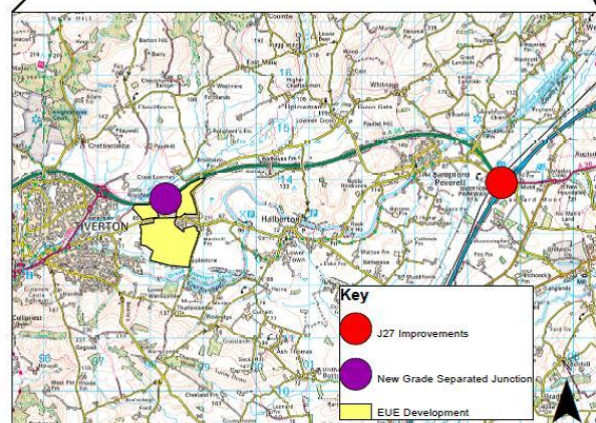
Capital Cost: £10.1 million
Q1 2015



Funding Proposal: £5.1 million

Delivery Programme:

Project Stage	Status
Project Initiation	Complete
Feasibility	Complete
Option Selection	Complete
Preliminary/Outline Design	Underway
Statutory Powers	2014/15
Detailed Design	2015/16
Contractor Procurement and Mobilisation	2016/17
Construction and Commissioning	2016/17
Project Close	2016/17



Description:

Provision of a new grade separated junction onto the A361 North Devon Link Road (NDLR) will enable residential and economic development to the east of Tiverton. The scheme will reduce the forecast additional vehicle trips along Blundell's Road which

bisects Blundell's School. There are currently air quality issues close to the roundabout junction with Great Western Way. The junction would also reduce traffic along rural roads through Halberton and on the narrow Newte's Hill road to Cullompton, particularly HGVs.

In addition to this junction, improvements are needed at J27 of the M5 where large queues develop in the summer months and bank holiday weekends on both M5 off slips. A scheme for this junction has been designed which included signalisation of the two off slips and some circulatory widening, which was successful in receiving funding from the Highways Agency pinch point programme. Additional improvements may still be required to signalise the other two arms and widen the A361 approach but will form a small part of the overall scheme.

These schemes are needed to allow the Tiverton Eastern Urban Extension (EUE) development to come forward which will consist of up to 2,000 dwellings and 130,000m² of employment floorspace¹. Without these schemes, only a limited amount of this development will be progressed.

Documents:

¹ Mid Devon Local Development Framework: Allocations and Infrastructure Development Plan Document

<http://www.middevon.gov.uk/CHttpHandler.ashx?id=15292&p=0>

Mid Devon Local Development Framework: Proposals Map

Available from <http://www.middevon.gov.uk/index.aspx?articleid=8086> Drawing number C11032/4A: M5 J27 Scheme Plan

Strategic

Identified problems and objectives
<p>Expansion of Tiverton to the east, by up to 2,000 dwellings, will create additional vehicle movements and the current network will not be able to accommodate this traffic increase. The A361 junction scheme reduces traffic on Blundell's Road which will improve safety and reduce air quality issues in the area. An assessment in line with WebTAG suggests that only 300 dwellings can be accommodated without the new junction and thus the economic case only includes 300 dwellings.</p> <p>A grade separated junction onto the A361 is required, as opposed to an at grade junction, to prevent increased journey times and delay for vehicles travelling along the A361 to North Devon. This is one of the few remaining strategic links left in Devon under Devon County Council (DCC) control and any new accesses along this route should be designed to trunk road standards.</p> <p>Some of the trips expected to originate from the EUE will have destinations within Exeter and Taunton as well as other locations along the M5. For this reason, improvements at J27 are required to accommodate these extra vehicles as this junction is currently close to capacity. These changes will also allow development to come forward in North Devon as it will have easier access to the Strategic Road Network (SRN).</p> <p>The main objectives of the scheme are to provide safety improvements, provide economic growth by enabling development, and increase capacity on the local highway network in order to accommodate traffic from development.</p>
<p>Documents:</p>

Scale of Impact	1	2	3	4	5
	<p>The A361 junction scheme will allow more trips to access the A361 and enable development and economic growth. Initial assessments of this scheme shows that, depending on other highway changes, the new junction could be used by up to 3,400 PCUs in the morning peak and 3,000 PCUs in the PM peak in 2026 which would otherwise have to use the existing network. Development traffic accounts for around 70% of the traffic at the new junction.</p> <p>This would result in large time savings for all EUE development traffic, prevent major congestion in the local area and provide more reliable journey times for traffic using both the existing and proposed new junction. The scheme will therefore unlock the development of up to 2,000 dwellings and 130,000m² of employment floorspace in the Eastern Urban Extension by accommodating the trips from the development and preventing an unacceptable impact on the existing highway network.</p> <p>The strategy for the full 2,000 dwellings is to construct the new Junction plus an alternative route through the development adjacent to Blundells Road. This would allow Blundells Road to become a bus and sustainable transport (bus/cycle/walk) corridor. The new junction is therefore key to the sustainability of the new development. Based on an assessment with only 300 dwellings, the scheme is</p>				

<p>expected to reduce traffic flow on Blundells Road by 30% compared to the do minimum.</p> <p>The objectives of the J27 scheme are to improve safety and reduce journey times by reducing queuing on the off slip roads which can extend back onto the mainline. The junction currently experiences significant increases in traffic as a result of tourists wishing to access north Devon during summer months and bank holiday weekends. The scheme will improve the operation of the junction and reduce the severe delays experienced during these times.</p>
<p>Documents:</p>

Fit with wider transport and government objectives	1	2	3	4	5
					X
<p>As set out above the need for a new junction onto the A361 is set out in the Mid Devon LDF¹ as part of the development proposal and falls within the government priority of supporting and enabling economic growth.</p> <p>The new access junction would not negatively impact other transport modes as it would remove congestion from the current network and allow buses and HGVs to travel more efficiently with decreased delay.</p> <p>The combined improvements along the A361 follow LTP² policy by improving strategic links while promoting growth, improving safety and reducing journey times and delay.</p> <p>A lower cost alternative consisting of an at grade roundabout was put forward by developers. This alternative option would struggle to accommodate the PM peak traffic demand and would be over capacity in the summer months due to the seasonal flows along the A361. This option was therefore rejected by DCC because of the increased delay and journey times on the A361.</p>					
<p>Documents:</p> <p>¹ Mid Devon Local Development Framework: Allocations and Infrastructure Development Plan Document http://www.middevon.gov.uk/CHttpHandler.ashx?id=15292&p=0</p> <p>² Devon and Torbay Local Transport Plan http://www.devon.gov.uk/dtltlp2011-2026strategydoc.pdf</p>					

Fit with other objectives	1	2	3	4	5						
				X							
<table border="1"> <thead> <tr> <th>Policy Document</th> <th>Objective</th> <th>Scheme Fit</th> </tr> </thead> <tbody> <tr> <td>Local Transport Plan</td> <td>Deliver and support new development and economic growth</td> <td>The new A361 junction will deliver economic growth by improving access between the EUE development and the wider transport network, making it a better location for businesses.</td> </tr> </tbody> </table>	Policy Document	Objective	Scheme Fit	Local Transport Plan	Deliver and support new development and economic growth	The new A361 junction will deliver economic growth by improving access between the EUE development and the wider transport network, making it a better location for businesses.					
Policy Document	Objective	Scheme Fit									
Local Transport Plan	Deliver and support new development and economic growth	The new A361 junction will deliver economic growth by improving access between the EUE development and the wider transport network, making it a better location for businesses.									

		Improvements to J27 will also accommodate planned development in Tiverton and north Devon.
	Make best use of the transport network and protect the existing transport asset by prioritising maintenance	Allow Blundell's Road to operate within capacity and decrease delays and journey times for vehicles on the local highway network. The A361 grade separated junction protects the existing and future function of this route.
	Work with communities to provide safe, sustainable and low carbon choices	Provision of a new access road in and out of the development will reduce traffic on Blundell's Road and through Halberton, making these routes more attractive for cycling and walking.
	Strengthen and improve the public transport network	Removing traffic from Blundell's Road will free up capacity which will make bus journey times more reliable. There is also an option for a quick bus link through the new junction to Tiverton parkway station.
	Make Devon the 'Place to be naturally active'	Removal of traffic along Blundell's Road improves attractiveness of this corridor as a walking and cycling link.
Mid Devon Local Development Framework	Objective F: Air Quality	The section of Blundell's Road near to the junction with Great Western Way is likely to become an Air Quality Management Area, (AQMA) with increased traffic. The creation of the new junction will prevent this.
	Objective G: Traffic and Transport	The new junction will improve bus services to Tiverton parkway station and encourage people to travel longer distance journeys by train. Development is a mixed use site to encourage people to work and live in the district
	Objective K: Health care, community services and facilities	Improved bus service between the EUE and Tiverton town centre and to Tiverton parkway station because of reduced journey times and improved reliability.
	Objective N: Economic Growth Objective O: Rural and Urban Diversification	Proposed junction unlocks a large area of economic development land (up to 130,000m ² floorspace) inside Mid Devon District which will boost economic growth.

Documents:

Devon and Torbay Local Transport Plan 3

<http://www.devon.gov.uk/dtltlp2011-2026strategydoc.pdf>

Mid Devon Local Development Framework

<http://www.middevon.gov.uk/CHttpHandler.ashx?id=11798&p=0>

Key uncertainties

There are several uncertainties with this scheme. A detailed cost estimate for the grade separated junction has yet to be undertaken. There are also some environmental concerns with part of the road necessitating construction within the floodplain.

The location of the A361 junction is in close proximity with an archaeological protected monument and this issue is currently being investigated by English Heritage.

Various other wildlife surveys are currently being carried and results of these should be available soon.

The scheme has been designed to lie within the area of land owned by the developer therefore it is available and carries little risk.

Documents:**Degree of consensus over outcomes**

1	2	3	4	5
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		X		
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Mid Devon undertook full public consultation before issuing the Mid Devon LDF¹.

Initial discussion with developers and Mid Devon District Council regarding a grade separated option were positive, with the developers submitting a preliminary design of the junction.

Documents:

¹Mid Devon Local Development Framework

<http://www.middevon.gov.uk/CHttpHandler.ashx?id=11798&p=0>

Economic

Economic growth				
Connectivity	What impact on end to end journey time?			X
	Does it impact cost of travel?			X
Reliability	Impact on journey time variability or average delay?			X
	Impact on number of incidents?			X
Resilience	Impact on the resilience of our infrastructure?			X
Delivery of Growth	Will the option facilitate new housing / employment / retail?			X
<p>The new access road will decrease journey times and hence reduce travel costs – also achieved by the more direct route for trips to the SRN at J27. This will also increase journey time reliability and reduce the number of incidents. The scheme will improve network resilience by providing an additional junction access for the eastern side of Tiverton, which will provide relief to other junctions during disruption.</p> <p>The scheme will unlock the delivery of the EUE development of up to 2,000 dwellings in Tiverton and will be also accommodate further development beyond the current 2026 plan period, as well as planned development in North Devon.</p>				
Documents:				

Wider Economic Benefits			
		Yes	No
WITA Assessment	Assessment of the move to more / less productive jobs		X
	Agglomeration – Is the scheme located within a FUR?		X
	Labour supply impacts	X	
	Output supply in imperfectly competitive markets	X	
<p>The schemes will improve access to key employment areas and have the potential to have some labour supply impacts in these areas.</p> <p>The J27 improvements will improve accessibility to north Devon, unlocking development in the area and increasing tourism.</p>			
Documents:			

Carbon emissions			
		Yes	No
Embedded Carbon	Is significant construction work required?		
Carbon Content	Does the option involve a lower carbon fuel?		X
		+	-
Efficiency	Does fuel per vehicle-km change?		X
Activity	Does vehicle-km change?		X
<p>The access road and new junction onto the A361 will increase average speeds by reducing congestion which will result in reduced carbon emissions from vehicles as</p>			

the fuel per vehicle km will decrease. By providing a more direct route to the A361 and M5 the junction vehicle-kms will be reduced.

There is a large amount of construction work required but this is expected to have minimal impact on the existing network.

Documents:

Socio-distributional impacts and the regions

		Yes	No
Regeneration	Does it impact on accessibility to key locations?	X	
	Does it impact on connectivity to central business districts?		X
	Does it impact on a Regeneration Area(s)?		X
	Assessment of Regeneration required? (If Yes to any of the above or scheme cost > £5m)	X	

The scheme will improve accessibility to the EUE area and connect this area to the SRN and regional centres. It will facilitate considerable housing and employment provision in a market town which acts as a centre for a large rural area and has a higher proportion of both young and elderly populations than the national average. In particular the scheme will reduce traffic on Blundell's Road, bringing improvements in air quality and safety to an area with a large number of young people due to the education establishments on the route.

Documents:

Local environment

The scheme will have some environmental impact due to the need to construct part of the scheme within the flood plain. There is also likely to be some noise impact associated with a grade separated junction, although this will be adjacent to the existing dual carriageway. The scheme will lead to positive air quality impacts on Blundell's Road.

Documents:

Well being

The scheme will have limited impact on physical activity, although it may encourage increased car use due to reduced highway congestion. Despite this, reducing the number of vehicles on Blundell's Road will make it a more attractive, direct walking and cycling route between the EUE and Tiverton town centre. The scheme will reduce injuries and accidents as a result of reduced traffic on Blundell's Road and reduced queuing at key junctions. It is not expected to have an impact on crime but will increase access to services from the EUE area by reducing journey times, delay and increasing reliability. Although the additional highway infrastructure could cause some severance it is felt that the increased safety and level of access will offset any negatives giving a largely neutral impact on well being.

Documents:

Expect Value for Money Category	1	2	3	4	5
					X

Economic appraisal has been undertaken using TUBA. Due to the role of the scheme in unlocking dependent housing appraisal was undertaken in line with WebTAG unit 3.16¹ Appraisal in the Context of Housing Development.

The scheme effectively unlocks delivery of the EUE growth, of 2,000 houses and 130,000m² employment floorspace which would otherwise be prevented by the unacceptable highway impact. The Value for Money is therefore very high due to the critical role of the scheme in unlocking development.

Capital costs include an allowance of 15% for risk and 44% optimism bias. The transport appraisal is only undertaken for non-dependent housing development with the benefits accruing from the delivery of dependent housing expressed separately below.

Costs (2010 prices)
PVC £8.6m

Benefits (2010 Prices)
PVB £56.5m

NPV £47.9m
BCR 6.6

BCR rating: HIGH

Benefits from delivery of dependent housing: £45.8m

Documents: ¹ WebTAG Unit 3.16 http://www.dft.gov.uk/webtag/documents/expert/pdf/unit3.16d.pdf

Managerial

Implementation timetable	1. 0-1 months	
	2. 1-6 months	
	3. 6-12 months	
	4. 1-2 years	
	5. 2-5 years	X
	6. 5-10 years	
	7. 10+ years	
	Don't Know	
		Completion Dates
Preliminary Design – complete Consultation		2013/14
Planning Application Preparation Planning Application Determination		2014/15
Detailed Design Procurement Contractor Mobilisation		2015/16
Construction commencement Construction completion Scheme commissioning		2016/17
Documents:		

Public acceptability	1	2	3	4	5
			X		
<p>The option was included within the LDF¹ and underwent consultation through this process. The LDF examination in public identified the need for the new access route to support the EUE and a location was identified in the plan. There is the possibility of negative public support from local residents due to objections to EUE development.</p> <p>The Local Plan was adopted in January 2011 which is dependent on this development and therefore the scheme. Consultation has previously been held in relation to the development including an earlier revision of the scheme which involved a junction located further to the east. Another public consultation is planned for summer 2013 which will include the updated junction location and design. The general response from the public is that the development can not come forward without the new junction.</p>					
Documents:					
¹ Mid Devon Local Development Framework: Allocations and Infrastructure Development Plan Document http://www.middevon.gov.uk/CHttpHandler.ashx?id=15292&p=0					

Practical feasibility	1	2	3	4	5
				X	
<p>The A361 scheme is feasible and preliminary designs have been produced so that a planning application could be submitted. The road and junction will be adopted by DCC.</p> <p>The junction will be built within the developers land because some areas to the north of the A361 are not part of the development and may therefore be subject to CPO.</p> <p>The distance between the slip roads of the proposed A361 junction and the existing junction at Gornhay Cross will be less than the 1km minimum set out in DMRB so a departure from standards will be needed.</p>					
Documents:					

What is the quality of the supporting evidence	1	2	3	4	5
					X
<p>A traffic model has been built by DCC to specifically assess the transport impacts of the EUE development. This model has been built to DfT standards and is WebTAG compliant.</p> <p>A LINSIG model has been developed for J27 and has been approved by the Highways Agency for the Pinch Point Programme.</p> <p>A Transport User Benefit Appraisal has been carried out using these traffic models.</p>					
Documents:					

Key risks
<p>Risk: Planning Probability: Low risk Mitigation: the scheme is included in the Mid Devon Core Strategy¹ providing greater policy weight and is needed for the full EUE development to come forward Score: 3</p>
<p>Risk: Land acquisition Probability: Low risk Mitigation: The scheme has been designed to lie within the area of land owned by the developer therefore it is available. Score: 4</p>
<p>Risk: Location in Flood Plain Probability: Low risk Mitigation: Construction in the flood plain will need to demonstrate its case as essential infrastructure to pass exception test. Traffic modelling will provide evidence that the infrastructure is essential to bring forward the strategic allocation. Score: 4</p>

Risk: Archaeological and Environmental issues

Probability: Low risk

Mitigation: Awaiting results of archaeological and environmental surveys being carried out in the area. If these find anything the location of the junction may have to be moved slightly.

Score: 4

Documents:

¹Mid Devon Core Strategy

<http://www.middevon.gov.uk/index.aspx?articleid=2605>

Financial

Affordability	1	2	3	4	5
					X
<p>Funding for the scheme likely to come from a variety of sources. This may include LTB, Pinch Point process, Developers, New Homes bonus etc. LTP funds available to ensure scheme is ready for delivery.</p>					
Documents:					

Capital Cost (£m)	£10.1m
<p>Initial cost estimates at Q1 2015 including optimism bias 15% risk and contingency and 44% optimism bias.</p>	
Documents:	

Revenue Costs (£m)	£0m
<p>Not included as part of access scheme but there should be minimal costs.</p>	
Documents:	

Development Contributions (£m)	£5m
<p>Funds from S106 have been agreed for some developments and will be sought from future developments.</p>	
Documents:	

Cost Profile				
Earliest Start Date				
Expenditure Source	2013/14	2014/15	2015/16	2016/17
Local Authority				
Developer	£0.1m	£0.2m	£0.4m	£4.2m
LTB				£5.1m
Total	£0.1m	£0.3m	£0.4m	£9.3m
<p>There will be some maintenance costs associated with the new infrastructure to be adopted by the Highway Authority. There will be minimal additional operating costs. Any costs and savings to business will be included within the Transport User Benefit Appraisal.</p>				

Documents:

Cost Risk

1	2	3	4	5
X				

Given the stage of development of the scheme, the levels of optimism bias (44%) applied are generous but in full compliance with WebTAG.

Overall the risk of costs increasing beyond the applied risk and optimism bias levels are remote.

Documents:

Commercial

Flexibility of option	1	2	3	4	5
			X		
<p>The size of the scheme is fixed as a full movement junction is needed to accommodate the EUE development traffic. A phased approach could be used, delivering a left-in, left-out junction to the south of the A361 in phase 1, with the rest of the scheme being finished in phase 2. These phases have yet to be decided and can be stopped at any stage.</p>					
<p>Documents:</p>					

Where is funding coming from?
<p>Capital costs to be funded through LTB with contributions from a combination of CIL / S106. J27 improvements could be funded through Pinch Point Programme.</p>
<p>Documents:</p>

Any income generated (£m)	No
<p>No income generated, excluding negative indirect tax impact.</p>	
<p>Documents:</p>	