



Devon Metro - fulfilling the potential of rail

Key facts

- 28,500 more homes and 20,000 jobs planned in Exeter (including East of Exeter) = aspiration for 50% growth
- 30% increase in retail floor area in the city centre with only a small amount of additional parking
- 50,000 new homes and 40,000 new jobs
- main radial roads are at capacity

Opportunities for rail growth:

- five rail lines and eight stations in the city
- 4% of commuting trips to the city centre are made by rail
- 84% of consultation respondents support further investment in rail

Background

The next 10-15 years will be a time of rapid growth with 50% more dwellings planned for Exeter - including the new town of Cranbrook. In order for Exeter to compete with other cities in the UK and act as an economic hub for the rest of Devon and Torbay, it must have a transport system which offers high quality access to jobs, retail and leisure opportunities and the city centre.

The aim is to encourage people to use sustainable transport, such as walking, cycling and public transport instead of the private car. There are opportunities to enhance the rail travel journey experience into Exeter which could facilitate both economic growth and a reduction in carbon emissions.

The current situation

Exeter is well served by rail with five train lines and eight stations. Patronage has grown above the national average – around 4% per annum over the last 10 years. On the Exmouth line for example, patronage increased by 40% between 2001 and 2009.

The success of rail travel into Exeter has led to overcrowding during peak periods on the Paignton, Barnstaple and Exmouth routes. This could affect the attractiveness of travelling by train.

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With pressures on the Exeter road network there are opportunities to increase the number of areas served by rail. This would improve access to the city centre, reduce cross city car movements and connect to significant growth areas. A station is already planned for the new community of Cranbrook, to the east of Exeter with work expected to start in 2012.

Rail has huge potential to offer an attractive, fast alternative to the car and was well supported in the public consultation. Rail passenger groups have said that the local rail network is "a priceless asset operating well below its potential".

Potential for improvement

Rail is used more than cars for journeys to work where there is a train station within walking distance of home according to travel data for Exeter. This confirms findings from other cities that rail travel is popular if it is convenient, comfortable and competitive in travel time and cost.

Rail usage rates are much higher on the Exmouth line, which has a half hourly service, than on the Torbay line which is only hourly at present. Providing a half hourly service on the Torbay line would not require expensive

infrastructure works and could result in greatly increased patronage particularly because of the considerable future developments planned along the coast and the A380 corridor.

There are clear indications that rail patronage would increase with the introduction of new stations and more frequent services. Digby & Sowton station opened in 1999, serving the large employment and housing areas nearby, and passenger numbers have increased steadily. Other new stations, planned for Newcourt, Marsh Barton and Edginswell (in Torbay) would be similarly successful due to the proximity of housing and employment.

Economic assessment has shown that new stations would be good value for money providing travel time benefits for rail users who would be able to avoid traffic congestion on surrounding roads. Other road users would also benefit from congestion relief.

In the short term, some new stations and service improvements could be implemented with only minor infrastructure changes. Additional new stations and further service improvements would require new infrastructure, passing loops and rolling stock that can only be achieved in the longer term.

Devon Metro Network Map



Implementation Plan

The Devon Local Transport Plan 2011-2026 includes an Implementation Plan for a realistic and deliverable programme of rail investment that is supported by the industry. The County Council has been actively involved in encouraging rail usage across Devon in recent years working with the rail industry and local partnerships. This has, for example, led to a new additional platform and passing loop at Axminster providing an hourly service on the Waterloo line.



The rail industry's Great Western Route Utilisation Strategy (RUS) includes plans to provide an additional hourly service between Paignton and Exeter (subject to rolling stock and funding). This will increase frequency on the Torbay line to half hourly and help deal with some overcrowding issues. As part of these improvements there may be opportunities to extend the service to Cranbrook and Axminster.

Overcrowding can also be addressed by increasing capacity of trains to four coach units, also in the RUS strategy, which could be achieved through redeployed rolling stock from elsewhere in the country.

Modelling of forecast patronage suggests that new stations at Newcourt, Marsh Barton and Edginswell offer the most potential.

Other possible stations were considered but not found to be feasible in the short to medium term. Despite being close by, Exminster has much lower forecast patronage than Marsh Barton, and only one additional station is practical on this section of the main line. On the other hand, Monkerton has potential but is close to Newcourt and would be more expensive, requiring an additional passing loop on the single track line.

It is envisaged that the new stations proposed can be achieved using existing track and rolling stock, offering a relatively low-cost, high value transport solution.

The station at Marsh Barton would attract rail trips to this major employment centre from a wide area with 30% from Torbay and South

Devon, 15% from the city centre and over 30% from east of the river. The Newcourt station would serve both the planned residential development and further employment uses close to Sandy Park. Edginswell station would serve the nearby hospital and local residential area, and could be well placed to attract park & ride trips from further afield.

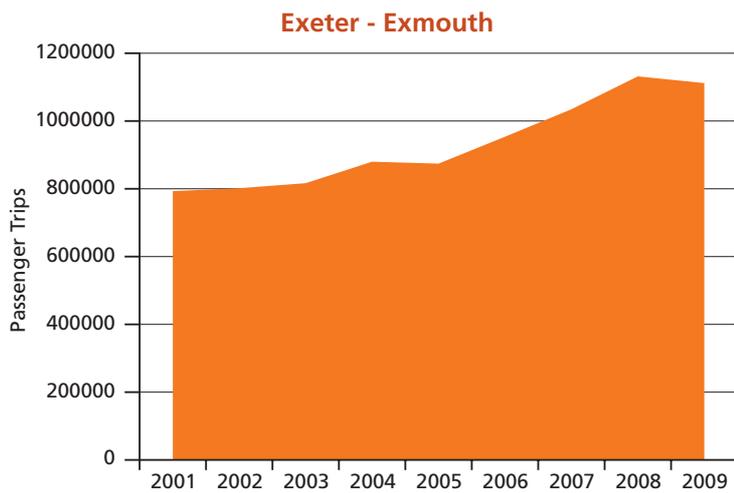
Devon County Council will also be taking a very proactive role in achieving the best outcomes possible for Devon in the forthcoming specification of replacement rail franchises in the next few years. The longer franchises will offer opportunities for further service enhancements and potential capital investment by franchise holders.

Provision of extra rolling stock for local services is difficult as there is a national shortage of local diesel units. However, opportunities will exist in the medium term for such trains to be cascaded to local lines in Devon as electrification of local networks proceed in other parts of the country.

Longer term

In the longer term, more costly options with new infrastructure would be needed to deliver more frequent services. Passing loops at Lypstone and Digby & Sowton would enable an enhanced 15 minute frequency on the Exmouth line. A further passing loop at Cranbrook or Whimple would allow a half hourly service to Axminster on the Waterloo line.

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There is land allocated for a station at Cullompton but forecast demand is relatively low, possibly due to existing buses, and direct competition with car trips on the M5. Although it is on the main line, at present there is no local train service between Exeter and Taunton, with local journeys being carried on long distance main line trains. Viability at Cullompton could be improved if there were stopping trains also serving a new station at Wellington in Somerset.

Improving the Plymouth to Ivybridge service is also desirable. At present, most of the services operated through South Devon are long distance main line trains, most of which do not call at Ivybridge. There may be opportunities for more stopping trains at Ivybridge as nearby development progresses and potential patronage will be monitored.

Other rail issues

There are plans from the Dartmoor Railway to provide services throughout the year from Okehampton to Exeter and for a new station in east Okehampton close to planned residential and employment development.

Plans are also in hand to reinstate the former railway between Bere Alston and Tavistock, enabling the Tamar Valley line to offer regular services between Plymouth and Tavistock. The station and track will be funded by development planned for Tavistock. This route would provide an alternative to the heavily congested A386 corridor for journeys between Tavistock and Plymouth. It would also give access to the Cornwall and West Devon Mining Landscape World Heritage Site at Tavistock.

The coastal section of the main line between Dawlish and Teignmouth suffers occasional closures during severe weather caused by sea water damage to track and signalling. These closures are disruptive and have economic consequences but do not justify the large costs of providing an alternative alignment. An extensive maintenance programme of works has been planned to stabilise the sea wall, cliffs and beach for the next 20 years.

There are numerous other disused rail lines in Devon such as the Teign Valley, Barnstaple to Bideford, Tavistock to

Okehampton and Barnstaple to Ilfracombe. At the current time, re-opening plans for these lines is not considered viable because of the capital cost of re-opening and the revenue cost of the operation.

The way ahead

The delivery of the new stations requires considerable and sustained commitment by the stakeholders involved. The first step in the process is a Memorandum of Understanding between Devon County Council, First Great Western and Network Rail to take the Devon Metro project forward. Initial patronage and economic assessments have been undertaken, along with preliminary design work to determine the viability and feasibility of delivering rail improvements. Design of the stations in Exeter has already started and a joint design agreement is being developed for the Tavistock to Bere Alston rail scheme.

In 2011/12 Devon County Council will continue to progress engineering design work for Newcourt and Marsh Barton stations that meet the requirements of Network Rail's Governance of Railway Investment Projects (GRIP) process. Subject to this, completion of the new Exeter stations could be as early as 2015 (dependent on funding).