South Somerset District Council

Chard Regeneration Framework

Strategic Transport Appraisal Report - Executive Summary

Project Ref: 21939

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1 Executive Summary

1.1.1 PBA has been commissioned by South Somerset District Council and Somerset County Council (Highways) to assess the transport implications, strategy and infrastructure needs to support housing and employment growth underpinning proposals for the Chard Regeneration Framework developed in conjunction with LDA.

Development Proposals

1.1.2 The growth proposals for the Regeneration Framework are based on the spatial distribution of housing, employment, retail and community services in four main geographic areas which cover the Town Centre, The Key Site, South West and North Chard. The land use framework identified for the growth areas comprise:

- In the order of 3,500 dwellings;
- Circa 44,000m^2 of employment;
- Circa 7,000m^2 of retail use (food and non-food);
- Neighbourhood and District Centre facilities; and
- A new Primary School as part of the key site.

1.1.3 The level of housing proposed reflects an estimated 120% increase in provision over the current Local Plan level of 1,350 dwellings and some 20% higher than the increase of 100% as a potential upper limit increase identified for the emerging LDF process. The level of housing provision tested as part of the transport strategy is therefore considered a robust assessment of the future housing potential in Chard.

Baseline Investigations

1.1.4 A Transport Baseline (April 2009) report has been produced which sets out findings and analysis of existing transport conditions in Chard. Baseline transport investigations have identified that current mode share for Chard is split broadly 65% car (including passengers) and 35% non-car which is slightly higher than the average mode share for Somerset towns and settlements in South Somerset District identified from the 2001 census data.

1.1.5 The mode share for Chard reflects a high proportion of local journeys are made on foot which in turn reflects the compact and generally accessible nature of the existing settlement pattern. However, the general legibility, directness and general connectivity of routes is considered poor. The provision for cyclists is limited and is reflected in the low proportion of movement made using this mode.

1.1.6 Similarly, public transport usage is low as a proportion of overall mode share. The main bus routes operate on the A358 and A30 corridors and facilitate connections to Taunton, Ilminster, Crewkerne and Yeovil; however, service frequencies are low and journey times often unreliable. Access to rail service in Chard is also poor with residents reliant on stations at Axminster, Taunton and Crewkerne to enable longer distance journeys. The absence of co-ordinated rail and bus services means interchange between modes is limited and thus rail connections are in the main made by car.

1.1.7 Analysis of 2008 baseline traffic patterns in Chard identified that around 40% of peak hour traffic has an origin and destination in Chard, 25% of traffic has an origin in Chard and an external destination. A similar proportion of peak hour movement is associated with traffic arriving in Chard form external origins. Only 10% of peak hour traffic in Chard is associated with through-movement.

Movement Framework

1.1.8 The baseline investigations have informed the development of a transport strategy to support growth potential in Chard. The strategy focuses on the enhanced provision for walk, cycle and public transport as a means of encouraging change in travel behaviour, travel choice and general patterns of movement for local and medium distance journeys. The strategy is supported by the provision of essential highway infrastructure to provide for access and accommodate residual demand for car borne movement associated with housing and employment growth.

1.1.9 The strategy advocates a 'hub and spoke' approach to the provision for walk and cycle modes with the focus on a spine of direct and convenient strategic radial links which connect with existing routes and facilitate linkage between existing and proposed housing, the town centre and employment facilities.

1.1.10 Improvements to the public transport system are advocated and focus on the creation of a central hub to enable local interchange between services connecting Chard with neighbouring settlements. Enhanced frequencies and service diversions are proposed on key corridors aimed at improving local public transport accessibility and integration of proposed development areas. The improvements to the public transport system will require joint working between Somerset County Council, local public transport providers and developers with services and infrastructure provision to be secured through appropriate planning agreements.

1.1.11 The potential for rail based improvements has been considered at a strategic feasibility level and identifies that the re-opening of Chard Junction for passenger rail purposes would be feasible in engineering terms. The station would make a positive contribution to the overall transport strategy and regeneration framework, offering wider travel choice for existing and new residents in the medium to longer term. The potential for connections and interchange between bus and rail modes should be explored with a view to providing new bus services which connect the town centre and growth areas with passenger rail services at Chard Junction. In the long term, the re-opening of the station could also afford potential for residential and commercial development based around a local public transport hub.

1.1.12 Preliminary consultations with Network Rail and South West Trains suggest there would be support in principle for the re-opening Chard Junction for passenger rail purposes.

1.1.13 In terms of highway provision, the movement strategy advocates an alternative approach to the current Local Plan proposals for the Chard Distributor Road (CDR) to the east of the key site. As part of the proposals underpinning the regeneration framework, the CDR could effectively be down graded from a traditional 'relief' road to provide an orbital link between the A358 north, A30 and A358 south serving as a spine road to facilitate access to and from the key site whilst also serving as a corridor to accommodate through traffic movements. The proposal would provide relief to Church Lane, Convent Signals and Victoria Avenue whilst also providing for freight movements from Millfield and Tapstone Lane. The proposal would avoid duplication of highway infrastructure on the eastern side of Chard under the current Local Plan proposals, thereby reducing potential severance effects and environmental impacts as well as the overall costs associated with implementation.

1.1.14 The proposed alternative highway provision to the CDR would be supported by local junction improvements and traffic management proposals linked to town centre regeneration. Proposals for traffic management include rationalised parking provision, restricted access routes, changes in traffic priority and banned turning movements along the High Street and (Boden Street). Highway improvements proposed include provision of a local gyratory system between the Convent Link and Victoria Avenue, East Street, Crewkerne Road and Tapstone Road Junction.

Transport Modelling and Assessment

1.1.15 Transport modelling works have been undertaken to test the housing and employment growth proposals for the Chard Regeneration Framework using the Chard SATURN Highway Model produced by PFA Consulting on behalf of IMA Transport Planning. The 2008 Base year SATURN model was purchased by SSDC from IMA for the purpose of this study.

1.1.16 The 2008 base year SATURN model consists of:

1 A highway network reflecting existing links and junctions within Chard: and

2 A trip matrix comprising existing land use zones.

1.1.17 Base year traffic assignment runs have been undertaken and validated and confirm a good fit with observed traffic conditions. The base year assignment runs indicate that the main constraint on further development in Chard is at the Convent Signals. The junction operates close to capacity during peak times and would constrain development potential in Chard development to the trip generation equivalent of up to 200 dwellings without improvements to the network. Recommendations are made to implement a MOVA control system in order to improve the operational efficiency of the junction as a short term solution. This could increase the junction's capacity during peak times by around 8% which in turn would afford some additional development in advance of more strategic highway infrastructure provision.

1.1.18 Forecast year modelling assignment runs have been carried out for the 2031 horizon (LDA phase 10) with and without development and infrastructure improvements. Traffic flows for the 2031 base year without development and infrastructure indicate an increase of between 2-6 % during both the AM and PM peak periods over 2008 base traffic flows. The main highway constraint in the network is the Convent Signals which operates above capacity during peak time.

1.1.19 In the 2031 forecast year assignments with proposed development and infrastructure there is a general increase in traffic flows through key junctions which in percentage terms ranges from 16% to 55% in the AM peak and 3.7% to 55% in the PM peak. However, there are reductions in traffic flows identified through key junctions resulting from the introduction of the new link road to the east of Chard. Noticeable reductions during peak times are identified at the junction of Furnham Road and Victoria Road and the junction of Victoria Road, East Street, Crewkerne Road and Tapstone Road which indicates the new infrastructure is providing traffic relief at these locations.

1.1.20 A series of phasing assignments have been run using the SATURN model to test the incremental release of development and infrastructure provision over an assumed build out period between 2011 and 2031. The assignment runs and capacity testing suggest that full development, is likely to place pressure on the highway network with key junctions operating close to capacity during peak times. The junctions of Church Street and Holyrood Street and Church Street junction with Tatworth Road and Forton Road would operate above capacity in the AM peak and PM peak periods respectively with significant queuing and delay.

1.1.21 The phasing assignment runs and associated capacity testing at key junctions suggest that development proposals at around 120% above the current Local Plan provision (LDA phases 1-10, circa 3500 dwellings) would not be achievable without highway improvements at the network critical junction identified above. However, with development at around 100% above the Local Plan provision (LDA phase 1-9, circa 3,000 dwellings) and a geographical distribution across the key site, town centre and land to the north of Chard, the local highway network would operate adequately during peak times in the 2026 forecast year subject to effective implementation of an area wide travel plan.

Further Work

1.1.22 In order to progress the development proposals for inclusion in the emerging LDF a number of actions and further studies will be required. In the first instance it will be necessary to determine what form and geographical distribution, the development should take from the proposals outlined with SSDC and SCC.

1.1.23 The agreed level of development and infrastructure proposals will ultimately need to be defended at the Examination in Public and to do this it will be necessary to robustly defend the proposals against any objections that seek to limit the scale of development, change its form, promote alternatives or pursue a different phasing. With this in mind the following areas of further work are recommended:

- Detailed modelling of the proposed gyratory using LinSig or Paramics software;
- Concept design and costings for the proposed 'Link Road' serving the key site and connecting between the A358 north A30 and A358 south;
- Concept design and capacity testing of proposed new access junctions between the major roads in the town and the development areas;
- Development of a Network and Traffic Management Strategy Plan for Chard in conjunction with SCC Highways;
- Development of an area wide Travel Plan Framework for Chard, identifying objectives, targets and measures for implementation together with mechanisms for future monitoring and review and intervention where targets are not met;
- Development of a public transport viability model to test the potential for future bus service provision and network enhancements in conjunction with operators to ensure delivery as proposed;
- Viability study and business case assessment for Chard Junction Station;
- If Chard Junction Station is to be opened, a development brief for the area around that will be required; and

- Additional SATURN model assignment runs to assess alternative development scenarios and phasing strategies.

1.1.24 The timing and programme associated with the recommended additional works areas would be agreed with SSDC and SCC Highways.