

Heart of South West Local Transport Board

Marsh Barton Station Business Case

May 2014

STRATEGIC CASE

Scheme Name	Marsh Barton Station	Date	9 th May 2014
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Case for Change Strategic Fit

Devon is facing many challenges including a growing population, significantly reduced public sector spending, and an increasing demand on services. In this context **Backing Devon 2011-2015** (Devon County Council's Strategic Plan) sets out the Council's vision for 2020 and the main priorities to achieve this. Central to the vision is 'a flourishing and balanced economy, with strong economic growth and high quality employment' to be achieved through targeted investment to 'remove barriers to growth'.

With the essential role of transport and communications links for business and prosperity, this means investment in a wide range of transport infrastructure. Improving transport links to Marsh Barton is a key example of this: unlocking further economic growth through development at Marsh Barton and South West Exeter and improving the competitiveness of existing businesses.

Marsh Barton is Exeter's largest trading estate, and one of the largest employment sites in the region, with around 6,000 existing jobs planned to increase to 8,000 jobs. It covers over 1.2 square miles (3.1 sq km) supporting over 500 diverse businesses, including one of Europe's largest motoring centres, showrooms, builders merchants, tool and plant hire. Its planned growth is restricted by the poor transport links, which act as a barrier to development and will increasingly reduce the competitiveness of existing businesses.

To this end the new station at Marsh Barton interacts with both the Bridge Road widening scheme and the Alphington Park and Ride scheme, which will provide essential relief to key corridors on either side of Marsh Barton. The station will complement these schemes by providing an alternative to travel by private car to the estate, improving access from a range of destinations in a way that neither of these schemes can. In doing so it will improve employer's access to the labour market and job seekers access to jobs within Marsh Barton. In addition by improving use of the rail network, and encouraging modal shift, the scheme will make best use of existing capacity on both the rail and road networks, releasing capacity on the latter for captive vehicle trips.

The Devon and Torbay Local Transport Plan 3 expands on these themes with a number of specific objectives, which the scheme closely aligns with as set out below:

Objectives	Local Transport Plan Alignment	Scheme Fit
Deliver and support new development and economic growth	Improving access to key employment areas and supporting development at Marsh Barton and South West Exeter	
Make best use of the transport network and protect the existing transport asset by prioritising maintenance	Make better use of the local rail network by improving access to it, increasing demand and opening up new travel opportunities	
Work with communities to provide safe, sustainable and low carbon choices	Increase the sustainable choices available in areas with poor public transport accessibility	
Strengthen and improve the public transport network	Strengthen and improve public transport along key corridors into Exeter and Torbay	
Make Devon the 'Place to be naturally active'	Encouraging walking or cycling to the stations and providing access to the Riverside Valley Park in Exeter for recreation and leisure.	

Problem Identification

The Exeter highway network operates at well over its design capacity in many locations during the peak hours. The capacity of the central area and radial highway network has now reached a point where further improvements in capacity cannot be easily achieved without damaging the local distinctiveness and heritage of the city, air quality and the living environment. Despite this the City is set to experience rapid growth with 12,000 new houses within the City boundary and 8,000 more in adjacent developments.

Marsh Barton itself attracts large numbers of commuters in the peak periods, but has poor transport links. With extremely limited alternatives to the private car, the estate attracts considerable numbers of car trips through congested corridors including the A379, Bridge Road, Topsham Road, A377 Alphington Road and the junction at Countess Wear. Around 6,000 new houses at South West Exeter and Newcourt – on top of growth elsewhere in Exeter, South and East Devon – will generate significant increases in travel. This will increase the pressure on these corridors, including the busiest and most congested of all of Exeter's radial routes, as well as the local road network within Marsh Barton.

It is therefore clear that the scale of growth proposed within Exeter together with the proposals adjoining the city to the east and south west will result in a significant increase in traffic congestion as well as an unacceptable rise in emissions unless significant transport infrastructure is provided. The Marsh Barton area in particular is a significant generator of travel through congested corridors but suffers from poor alternatives to the private car. Without intervention this will lead to adverse impacts on the economy of Exeter, the cost of operating businesses and the competitiveness of the labour market.

Specific problems can therefore be summarised as:

- Increasing pressure on highway corridors from car trips to the Marsh Barton area in peak periods
- Poor alternatives to the private car for travel to and from the Marsh Barton area
- Need to accommodate employment and housing growth
- Limited access to employment opportunities from deprived areas of South Devon for those without access to a private car
- Access to the labour market for employers in Marsh Barton constrained by congestion and poor alternatives to the private car

Objectives

Aims and Objectives:

In general terms the scheme aims to increase access to the Marsh Barton area, and in doing so provide an alternative to the private car and reduce congestion.

In response to the identified problems the following specific objectives have been identified:

1. Relieve pressure on highway corridors into Marsh Barton in peak periods
2. Provide alternative to the private car for travel to and from Marsh Barton
3. Accommodate development within Marsh Barton and South West Exeter
4. Improve access to labour force for employers in Marsh Barton
5. Improve access to employment opportunities from deprived areas of South Devon

Further detail on each objective is as follows:

Objective 1	Relieve pressure on highway corridors into Marsh Barton in peak periods
Measure of Success	Journey time reliability
Timescale	2 years post opening
Indicators	Journey times, traffic flows, station footfall
Dependencies, Risks, Constraints	Suppressed demand released by other schemes negates impact of station

Objective 2	Provide alternative to the private car for travel to and from Marsh Barton
Measure of Success	Mode shift for commuting to Marsh Barton
Timescale	2 years post opening
Indicators	Timetabled services and station footfall
Dependencies, Risks, Constraints	Initial timetable constrained by rolling stock availability and interaction with other schemes

Objective 3	Accommodate development within Marsh Barton and South West Exeter
Measure of Success	Housing and employment delivered as per strategic case
Timescale	2012-2031 Plan period's
Indicators	Housing completions, employment numbers

Local Transport Board

Dependencies, Risks, Constraints	Development viability and external infrastructure requirements
Objective 4	Improve access to labour force for employers in Marsh Barton
Measure of Success	Increased public transport workforce catchment
Timescale	2 years post opening
Indicators	Population within 20 minutes travel time by rail
Dependencies, Risks, Constraints	Bus service changes affect public transport base
Objective 5	Improve access to employment opportunities from deprived areas of South Devon
Measure of Success	Access to Marsh Barton from 25% most deprived areas on Indices of Multiple Deprivation
Timescale	2 years post opening
Indicators	Population within deprived wards with access by rail to Marsh Barton
Dependencies, Risks, Constraints	Indices of multiple deprivation may not be up to date

Summary

Problems	Scheme Objective	Organisation's Objective	Contribution of Scheme Proposal
1 Increasing pressure on highway corridors from car trips to the Marsh Barton area in peak periods	Relieve pressure on highway corridors into Marsh Barton in peak periods	Deliver and support new development and economic growth	The station will remove vehicle trips from a large range of corridors into Marsh Barton providing a benefit to a large area.
2 Poor alternatives to the private car for travel to and from the Marsh Barton area	Provide alternative to the private car for travel to and from Marsh Barton	Strengthen and improve the public transport network	The station will provide direct access from a range of areas which currently have no public transport access to Marsh Barton including: Torbay, Newton Abbot, Teignmouth, Digby, Newcourt, Topsham and Exmouth. In addition access from some other areas including Dawlish, St James and Polsloe will be significantly improved. By changing trains travel to and from many other origins and destinations will also be possible including Barnstaple, Taunton, Cranbrook, Honiton, Axminster, Totnes and Plymouth.
3 Need to accommodate employment and housing growth	Accommodate development within Marsh Barton and South West Exeter	Deliver and support new development and economic growth	The station will support the delivery of 2,500 homes at South West Exeter and an additional 2000 jobs at Marsh Barton
4 Access to the labour market for employers in Marsh Barton constrained by congestion and poor alternatives to the	Improve access to labour force for employers in Marsh Barton	Deliver and support new development and economic growth	The station will provide direct access from a range of areas which currently have no public transport access to Marsh Barton including: Torbay, Newton Abbot, Teignmouth,

	private car			Digby, Newcourt, Topsham and Exmouth. The labour force will be extended to those in these areas either without access to a private car or unwilling to use a private car due to congestion on routes to Marsh Barton.
5	Access to employment opportunities from deprived areas of South Devon limited for those without access to a private car	Improve access to employment opportunities from deprived areas of South Devon	Work with communities to provide safe, sustainable and low carbon choices	The station will provide direct access from a range of areas which currently have no public transport access to Marsh Barton including: Torbay, Newton Abbot, Teignmouth, Digby, Newcourt, Topsham and Exmouth. This includes direct access from deprived wards within Torbay.

Scope

The project will deliver a new station at Marsh Barton immediately to the south of Clapperbrook Lane. The station will be served by the existing mix of local trains between Exeter and Newton Abbot. Although an enhanced local service frequency is a key aspiration this is excluded from the scope of the station project and is not assessed within the station business case.

The station will have two 124 metre platforms, capable of handling six car Class 150 multiple unit formations, lit to the latest NR LED lighting standards. The platforms will be connected by a footbridge, with steps and ramps, lit using handrail mounted LED lighting.

Each platform will include:

- Waiting Shelter
- Ticket Vending Machine
- CCTV security system
- Customer Information System
- Public Address System
- Help point
- Station signage and information boards

Access to the station will entail:

- Limited vehicular access for drop off and disabled vehicle parking to the east of the railway - further drop off will be possible on public roads to the west
- Dedicated pedestrian and cycle access with secure cycle storage facilities
- Enhancements to the adjacent junction between Clapperbrook Lane and Alphinbrook Road to improve pedestrian and cycle safety

The project will not deliver the following:

- A large station car park
- A pedestrian and cycle bridge across the railway for pedestrians and cyclists currently using Clapperbrook Lane
- Lighting of pedestrian and cycle routes within the Riverside Valley Park
- Improvements to pedestrian and cycle routes within Marsh Barton (except those described above)
- Changes to bus routes within Marsh Barton
- A pipe crossing of the railway in connection with the Exeter District Heating scheme

Constraints

As with any project there are a small number of constraints that have the potential to affect the delivery of the station.

Local Transport Board

Internally these are generic constraints relating to available resources. Externally the constraints reflect those affecting any rail project during the current period of high investment and high usage, which restricts access to the network and stretches contractor resources. A specific constraint affecting the project is the current limited availability of rolling stock and uncertainty on the timetable impact of enhancement projects elsewhere, which is likely to affect the initial timetable and timing of wider service improvements. Further detail on all these constraints is shown below.

Constraints	
Internal	External
<p>Devon / Jacobs Resources Devon County Council's recent success in securing funding has created a wave of schemes for delivery between 2014 and 2016. With the continued downward pressure on resources delivery of these schemes represents a significant challenge. At Marsh Barton technical resources to complete the procurement of a design and build contractor and a range of commercial agreements will be essential.</p>	<p>Contractor Resources The range of significant infrastructure projects for delivery in Control Period 5, combined with a shortage of skills in key disciplines, has created an overheated construction market. This is reducing competition for construction contracts – just two contractors tendered for Newcourt station – and affecting delivery programmes with consequential impacts on tender prices. The situation is most acute within specialist disciplines such as signalling.</p>
<p>Available Finance Continued budget reductions constrain the availability of funding for the design and procurement of schemes. For Marsh Barton funding is available for procurement but the potential early commencement of enabling works, to reduce project risk, is dependent on funding.</p>	<p>Possession availability Construction activities at the confined station site are likely to require possessions. While use of conventional overnight possessions is expected, some work may only be possible within day time possessions. Availability of these on the main line is limited, and combined with the long lead in time, this may impact on programme.</p>
	<p>Timetable development The development of the timetable for trains serving the new station is constrained by interacting train services, which may affect the initial timetable until the impact of major enhancement projects elsewhere is understood.</p>
	<p>Rolling stock availability The commencement of a full timetable recast in association with both Marsh Barton and Edginswell stations, and the wider Devon Metro project, is constrained by the need for more rolling stock, which is unlikely to be available until early 2017. This may constrain the timetable which can be operated for the first 6 to 12 months of operation.</p>

Inter-dependencies

The complexities of the rail industry, both industry structure and systems integration, creates the potential for a large range of inter-dependencies for any rail project. However, new rail stations are generally dependent on a small range of factors relating to funding, timetable modifications, land availability and station access.

Delivery of the station is dependent on approval of funding by the Local Transport Board and a significant element of local funding. The local funding is likely to be secured through either Section 106 or Community Infrastructure Levy, with Devon County Council potentially forward funding the contribution against these future contributions.

Development of an appropriate timetable is essential for station opening and there remain challenges to be overcome due to the interaction with other services between Exeter and Newton Abbot, which may affect the initial timetable until the impact of major enhancement projects elsewhere is understood.

A small area of land is required from Exeter City but early discussions have indicated no challenges in completing the transfer, and the majority of the scheme could be delivered without the land. Access to the station was modified at the planning application stage to resolve all access issues and remove any further land requirements. However, delivery of the station is dependent on resolution of the impact on a nearby footpath crossing of the railway. With support from key stakeholders it is therefore planned to proceed with a footpath diversion and level crossing closure and time has been allowed within the programme for a public inquiry should there be objections to the closure.

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Stakeholders

Rail projects attract interest from a wide range of stakeholders in both the professional and public spheres. The relative influence and attitude of stakeholders is summarised in Figure 1 which provides a useful tool to analyse the impact of stakeholders on the project.

Within the rail industry

The rail industry in particular includes a complex range of stakeholders and interfaces both within the operational railway, including train operators and infrastructure managers, and its regulatory framework. The latter includes the Department for Transport, who specify high level outputs for the industry and manages the franchise process, and the Office of Rail Regulation: the legal, financial and safety regulators.

The Department for Transport (DfT) is essential to the successful delivery of the project due to its role in agreeing to amendments to the Greater Western Franchise specification. A specific mention within the cancelled Greater Western Franchise competition demonstrated DfT support for the station and the DfT has supported the inclusion of the station within the base specification for the Western Route Study. The Office of Rail Regulation forms an essential part of the safety conformance and taking into use process.

Within Devon, Network Rail – as the infrastructure manager – and First Great Western – as the principle train operator – occupy critical roles for the project. Through a Memorandum of Understanding with Devon County Council, both parties have long worked collaboratively on the delivery of Marsh Barton station as part of the Devon Metro. In addition both Cross Country Trains and South West Trains, who are the other train operators within Devon, have indicated their support to Marsh Barton station and wish to be involved in developing appropriate timetables to serve the station. In this regard Cross Country Trains are essential due to the close interaction of local services – the majority of services calling at Marsh Barton – and Cross Country services. Freight Operating Companies have expressed no interest in the station due to the low volume of rail freight in the area, and hence limited potential impact, but Network Rail's freight managers have represented the operators and ensured that they are engaged through the timetable development process.

The Devon and Cornwall Rail Partnership (DCRP) has recently taken on responsibility for promoting the railway between Exeter and Paignton through the Interreg funded Citizens Rail project. DCRP has provided consistent and strong support for Marsh Barton station as part of the Devon Metro project. Two user groups are of relevance to the station, neither of whom directly represents users at Marsh Barton. However, both the Avocet Line Rail User Group (ALRUG) and the Torbay Line Rail User Group (TLRUG) claim interest in Marsh Barton, due to the interaction with their services, and TLRUG claim to represent users of the whole line between Exeter and Paignton. While ALRUG strongly supports the station, due to the strong potential for additional patronage on the Avocet line, TLRUG has focused more on the need for additional long distance services to Torbay itself with less interest in Marsh Barton station.

Outside the rail industry

Outside the rail industry Exeter City Council – as the Local Planning Authority – has supported the station since the inception of the project, by including the station as essential infrastructure within the Exeter City Core Strategy, Infrastructure Delivery Plan, and Community Infrastructure Levy schedule. In addition they have sought to safeguard land for the station through the Allocations and Infrastructure Development Plan Document. This position is supported by the elected members within both Exeter City Council and Devon County Council – the scheme has been supported by both organisations Development Management committees and by Devon County Council's cabinet.

In addition the station has received strong support on a number of occasions from the Devon and Exeter Rail Working Party, which is composed from interested members from Devon County Council, Torbay Council, Exeter City Council, Teignbridge Council, Mid Devon District Council, East Devon District Council, North Devon District Council, Torridge District Council, and West Devon Borough Council.

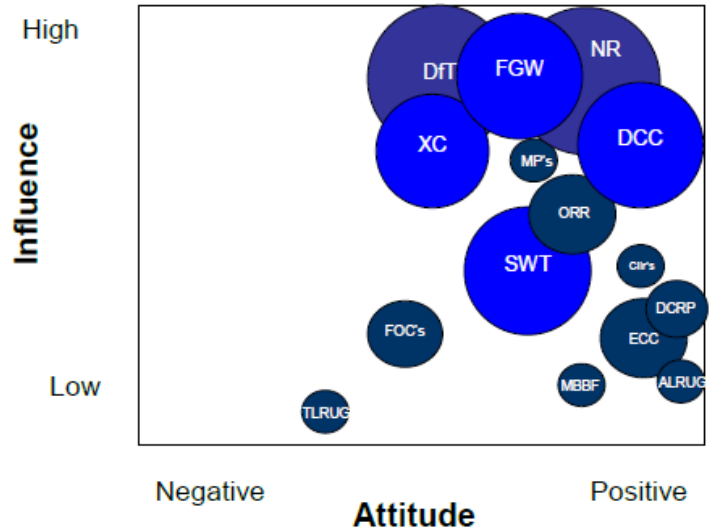


Figure 1 Stakeholder Analysis Graph

Within the wider public sphere the station has received strong support from the Marsh Barton Business Forum, which represents a range of businesses within the industrial estate, and has previously been presented to other local residents forums. An informal consultation on the station in November 2012, alongside a similar exercise on the station at Newcourt, received widespread support from the general public building on positive local media coverage. This support was confirmed by the complete absence of objections to the recent planning application.

Impact on the project

Among the wide range of stakeholders there is wide spread support for the project. This includes influential stakeholders within the rail industry, external stakeholders and the general public. This is important because to successfully deliver the project the detailed input of all the key stakeholders within the rail industry is essential, particularly in relation to final timetable development.

ECONOMICS CASE

Scheme Name	Marsh Barton Station	Date	9 th May 2014
Economic Summary		Value for Money Category	
PV Benefits (£m)	57.3	VERY HIGH	
PV Costs (£m)	3.6		
BCR	15.71		

Assessment Approach and Assumptions

The general approach to demand forecasting and economics is set out in further detail within the following documents:

- Appraisal Specification Report (Appendix 2)
- Transport and Economics Report (Appendix 3)

However in summary the following approach and assumptions have been used:

Benefits

A trip rate forecasting approach has been developed for the station to understand the likely level of demand. This has been used, along with a modal split model, to understand the modal shift from car and bus. A SATURN highway model of Exeter has been used to derive highway travel time savings based on the modal shift from car in future years.

Costs

Operational expenditure has been calculated using the model developed for Newcourt station including three components:

- Long term access charge – based on equivalent stations
- Train fuel cost – using information on fuel cost per station call and the mix of future services at the station
- Maintenance and renewals – expressed as a proportion of revenue

Capital expenditure has been taken from the latest scheme cost estimate with an allowance for risk, using the outputs from the Quantified Risk Assessment, and a WebTAG compliant level of Optimism Bias. The latter has been calibrated with the current level of scheme development and the level of knowledge that is available from the delivery of Newcourt station.

Appraisal

TUBA 1.9.1 has been used to undertake appraisal of the scheme benefits and costs over the standard 60 year appraisal period. The outputs from this have been presented in two formats:

1. Traditional Cost Benefit Appraisal – used to derive the standard BCR's presented within the business case, which demonstrate the strong socio-economic case
2. Department for Transport Appraisal – used to replicate the impact of premium payments to central government by train operators, which demonstrate the strong financial case to government

The outcome from these two appraisal methods is summarised for the core scenario below:

Appraisal (£m)	PVB	PVC	NPV	BCR
Traditional	57.3	3.6	53.7	15.71
DfT Adjustments	32.7	-21	53.7	Financially positive (-1.56)

Key Risks, Sensitivities and Uncertainties

In addition to the Core, High and Low growth scenarios have been produced to assess the full range of benefits likely to arise from the scheme. The Core growth scenario is considered the most likely outcome of the scheme. Low growth predicts what would happen if demographic, economic and behavioural changes led to a significantly lower level of travel in future. The High growth scenario predicts what would happen if demographic, economic and behavioural changes led to a significantly higher level of travel in future.

The outputs from these scenarios are presented below and all demonstrate both the limited sensitivity and robustness of the business case.

Scenario (£m)	Travel Time Benefits	VOC Benefits	Indirect Tax Benefits	Total Benefits	BCR
Core Scenario	34.4	2.3	-4,.3	57.3	15.71
Low Growth Scenario	30.6	2.1	-3.8	50.5	13.85
High Growth Scenario	38.4	2.6	-4.8	64.4	17.67
Rail Growth Cap	32,.8	2.4	-4.1	54.5	14.94

Appraisal Summary Table

The Appraisal Summary Table summarises both the quantifiable economic impacts of the scheme and a range of other environmental and social impacts. This is presented in full in Appendix 4 but key impacts excluded from the BCR are as follows:

Impacts	Positive Monetised and Non-Monetised Impacts not Included in BCR	Scale of Impact
Reliability impact on Business users	There will be reliability benefits for users travelling by rail into Marsh Barton. This is due to the high reliability of local services which typically are within 5 minutes of scheduled time in approx. 95% of cases. Modal shift from car to rail will also lead to reliability benefits for travel along highway corridors into Marsh Barton particularly the A379 from Dawlish and Starcross.	Slight Beneficial
Reliability impact on Commuting and Other users		Slight Beneficial
Physical activity	With a high level of modal shift from car to rail significant physical activity benefits would be expected from rail users walking or cycling to and from the rail station at both ends of their journey. The station is well connected to the Exeter cycling network and this is expected to encourage a high level of walking and cycling to the station.	Slight Beneficial
Access to services	Access to employment in Marsh Barton will be greatly improved particularly for those without access to the private car outside the Exeter area where there are few direct bus services too Marsh Barton.	Slight Beneficial
Affordability	Rail services within Devon offer affordable fares normally cheaper than equivalent bus services providing likely benefits for those without access to the private car for travel to work within Marsh Barton.	Slight Beneficial
Impacts	Negative Monetised and Non-Monetised Impacts not Included in BCR	Scale of Impact
Landscape	The scheme would have a small adverse impact on landscape due to the close proximity of the station to Riverside Valley Park.	Slight Adverse
Biodiversity	There would likely be slight adverse residual impacts on local wooded/scrub habitats and fauna including three species of reptile and	Slight Adverse

Local Transport Board

	foraging bats but these will be addressed through an appropriate mitigation strategy.	
Water environment	There is a risk of fluvial flooding from the River Exe, particularly of the station access road. A Flood Risk Assessment has been prepared and accepted by the EA as part of planning application.	Slight Adverse

Change in Benefit or Cost required to change Value for Money category	Change in Benefit or Cost	New Value for Money Category	Likelihood of New Value for Money Category
Cost of scheme	293% increase	High	Very low
Reduced revenue and travel time benefits	70% reduction in both	High	Very low

Value for Money Statement

Marsh Barton station represents excellent Value for Money: falling within the “Very High” VfM category with benefits of £15 for every £1 spent. In addition the station is financially positive returning more than £3 of revenue for every £1 spent – providing an operating surplus for the train operator and contributing to premium payments to central government.

FINANCIAL CASE

Scheme Name	Marsh Barton Station			Date	9 th May 2014			
Summary Financials								
Overall Cost of Scheme	£4.33 million	LTB Contribution	£2 million	Available Budget	£ 2.33m	Contingent Liabilities	£ 0m	
Scheme Costs								
Main Expenditure Items (include project income separately) (£m)	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	Total
Direct works			1.191	1.409				2.600
Signalling			0.113					0.113
Electrification & Power				0.220				0.220
Telecommunications				0.336				0.336
Operational Platforms			0.784					0.784
Structures			0.293	0.293				0.586
General Civils				0.560				0.560
Indirect works			0.499	0.304				0.803
Preliminaries			0.181	0.181				0.362
Detailed Design			0.240					0.240
Overheads and Profit			0.078	0.078				0.156
Commissioning				0.045				0.045
Enabling works (site clearance, haul road construction, reptile relocation)		0.050	0.050					0.100
Project Management and Supervision (including fees)		0.045	0.058	0.058				0.160
Contingency (based on QRA and Optimism Bias)				0.670				0.670
TOTAL COST	0.000	0.095	1.797	2.441	0.000	0.000	0.000	4.333

Local Transport Board

Budgetary Impact Summary

Forecast Net Budget profile (£m)	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	Total
Total Required Budget	0.000	0.095	1.797	2.441	0.000	0.000	0.000	4.333
Total Local Contribution (Secured)		0.095						0.095
Total Local Contribution (Unsecured)			0.097	2.141				2.238
Total LTB Requirement			1.700	0.300				2.000

Anticipated Funding & Financing Arrangements

Funding for the scheme is to come from three sources:

- Devon County Council – Local Transport Plan Integrated Block
- Development – Section 106 and Community Infrastructure Levy (CIL)
- Local Transport Board

While, subject to Business Case, funding from Devon County Council and the Local Transport Board is secured, developer funding, although anticipated, is not yet certain. An outline planning application has been submitted for 230 homes at Matford Home Park - part of the wider 2,500 home South West Exeter development area - and approximately £200,000 has been sought through an aggregated transport Section 106 contribution for this development.

The remainder of the developer funding is expected from a combination of contribution from the Exeter City and Teignbridge District Community Infrastructure Levies. The Exeter CIL is adopted, and implementation commenced in December 2013. The Teignbridge CIL has successfully undergone independent examination and is expected to be adopted in July with implementation following in October. Marsh Barton station is included on the Regulation 123 list for each Levy and given the status of CIL in each authority contributions can be expected with a high degree of confidence. Further confirmation of this would be provided from the CIL Board for each area at the Full Business Case stage.

The timing of contributions from Section 106 and CIL is likely to require short term financing of the scheme by Devon County Council. Options to provide this finance are currently being explored but are likely to include some form of borrowing. Further details of funding and finance arrangements are shown below.

Funding Source	FY 14/15	FY 15/16	FY 16/17	Total	Status	Funder	Financing Arrangement
Local Transport Plan Integrated Block	£95,000			£95,000	SECURE	Devon Count	DCC Capital
Section 106		£97,000	£103,000	£200,000		Matford Home Park S106	Borrowing against signed S106
Community Infrastructure Levy			£2,038,000	£2,380,000		Exeter CIL/Teignbridge CIL	To be confirmed
Local Transport Board		£1,700,000	£300,000	£2,000,000		Local Transport Board	To be confirmed

Financial Risks

A Risk Register, and Quantified Risk Assessment, has been developed to identify the range of cost risks that could impact on the project and suitable mitigation measures to manage them. The key cost risks that have been identified are:

Risk	Mitigation status	Calculated Risk Value
Lack of competition for Design and Build contract	Action: Stimulate market interest through engagement with suppliers and contracts agencies Impact: Reduces risk	£500,000 (20% likelihood)
Disruption to trains services from incident during construction	Action: Selection of competent contractor Impact: Reduces risk	£500,000 (5% likelihood)
Temporary haul road cannot be provided	Action: Early site investigation Impact: Reduces risk and provides early warning	£350,000 (20% likelihood)
Department for Transport (DfT) refuses 1:15 gradient ramps	Action: Early engagement with disabled user groups and DfT Impact: Reduces risk	£75,000 (5% likelihood)
Insufficient possessions available to complete works	Action: Early engagement with FGW and NR Impact: Reduces risk	£60,000 (40% likelihood)
Unidentified contaminants or other hazardous material on site	Action: Contamination testing at GRIP5 Impact: Reduces risk and provides early warning	£50,000 (30% likelihood)

A Risk Register and Quantified Risk Assessment are attached in Appendix 9 and 10 respectively.

Accounting and Budgeting Issues

Accounting and budgeting will be in accordance with the Council's standing orders.

Additional Notes

Cost estimate attached in Appendix 11.

COMMERCIAL CASE

Scheme Name	Marsh Barton Station	Date	9 th May 2014
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Introduction

The successful delivery of the project objectives at an outturn cost within the allocated budget will be determined by a wide range of factors which go beyond the chosen approach to the procurement strategy for the delivery of the project. For example, the form of contract on its own will not determine whether the project is successful. Factors which will contribute to a successful outcome of delivery within budget include:

- Clarity of objectives and common understanding by all parties
- Robustness of Client's cost estimate
- Adequacy of the Client's risk pot including allowance for inflation
- Effectiveness of project control processes including Gateways
- Quality of the design, specification and contract documents
- Preparation of the supply chain and timing of the procurement processes
- Compliance with Procurement Regulations and avoidance of challenges
- Appropriateness of the selection process and selection criteria
- Robustness of the tender assessment process
- Adequacy of the tender sum to deliver requirements
- Allocation of contractual risks and risk management
- Effectiveness of partnership and team working during construction
- Quality of the project and contract management
- Appropriateness of contractual performance incentives
- Effectiveness of dispute avoidance and resolution procedures
- Availability of the necessary resources

Capability and Skills

The expertise assigned to the delivery of Newcourt station within Devon County Council, Jacobs, Network Rail and First Great Western have been mobilised to also deliver Marsh Barton station. The required capabilities and assigned resources are shown below.

Organisation	Role	Responsibilities	Resourced
Devon County Council	Project Sponsor	Accountable for project development and delivery (including business case, land, design, approvals, commercial agreements and timetabling)	Matt Barnes
	Project Manager	Procurement, contract management and project delivery	Paul Ewings
	Engineering Manager	Technical design and construction assurance	Richard Lindop (Jacobs)
	Designers	Technical design	Jacobs
	CDM-coordinator	As defined within CDM Regulations (2007)	David Neal (Jacobs)
	Procurement Support	Procurement compliance and administration	Alan Palmer
	Planning Support	Planning approval and discharge of conditions	Jacobs
	Legal Support	Conveyancing	Caroline Davey
	Financial Support	Finance administration and compliance	Finance team
Design and Build Contractor	Contractors Project Manager	Link up accredited principle contractor to be appointed in accordance with NR requirements and CDM regulations	
	Contractors Engineering Manager		

	Contractors Responsible Engineer(s)		
Network Rail	Sponsor	Accountable for NR management compliance and commercial agreements	Phil Brown
	Asset Protection Manager	NR asset protection and technical compliance	Richard Selwood
	Designated Project Engineer	Technical design and construction activities approvals	Paul Walch
First Great Western	Regional Development Manager	Commercial agreements	Dan Okey
	Project Manager	Safety management system, systems integration and taking into use	Steve Livermore

Procurement Strategy & Sourcing Options

Preferred Procurement Route

The County Council's existing framework contracts only cover minor works for schemes up to £100k and are unsuitable in terms of scale, scope and price for use in the Marsh Barton station scheme. It is therefore necessary for project implementation to be procured through a scheme specific construction contract. The options for procurement of infrastructure projects are considered as:

- a. Design and Build (either target price or lump sum)
- b. Prime contracting
- c. PFI
- d. Traditional Approach (modified)

It is not considered that Prime Contracting, PFI or a modified traditional approach would add value or be appropriate for use on the Marsh Barton station scheme, leaving a Design and Build approach as preferred.

Selected Form of Contract

Assessment of the alternative options has not identified any significant additional benefits that would justify using a contract other than the NEC3 and therefore NEC3 will be used for this project. The most appropriate of NEC3 options for the particular constraints inherent in this well-defined and specified proposal would be Option A: Priced contract with Activity Schedule. Drafting of the Contract will take into account NEC3 risk allocation, the secondary risk options and any additional clauses that need to be included to cover allocation and mitigation of project specific risks and potential incentives for reward.

Financing Arrangements and Payment Mechanisms

Further detail on financial arrangements and payment mechanisms will be included in the full business case submission.

Risk Allocation and Transfer

The proposed NEC forms of contract support effective project risk management. The project risk register allocates to the contractor the risks which he is in a position to effectively manage. With regard to the overall financial risk, the proposed NEC3 ECC Options allocate a medium high value for the contractor and a medium low value for DCC. The secondary options allow further allowances to be made for specific occurrences such as inflation, changes in law etc. Furthermore, additional conditions of contract will be used to set out standard DCC procedures, such as for payment, traffic management etc.

The project risk register allocates to the contractor the risks which he is in a position to effectively manage. All the risks not to be taken and priced by the contractor will be made compensation events under the contract, should they occur. Furthermore, the contract allows for the development of a separate risk register consisting of tender risks and early warning events, along with a description of mitigation measures.

The NEC3 contracts would support the delivery of the project objectives and in particular would achieve the following:

- A fair allocation of risk with incentives to deliver within budget;
- Provide flexibility in the allocation of risk and the payment mechanism;
- Provide flexibility for the accommodation of change and
- Provide a strong management stimulus for effective risk management.

Contract Length

A 12 month contract is proposed to allow adequate time for detail design and construction within the confined site. This includes potential for float within the contractor programme.

Human Resources Issues

No issues identified

MANAGEMENT CASE

Scheme Name	Marsh Barton Station	Date	9 th May 2014
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Introduction

The station has been developed using Network Rail's Governance for Rail Investment Projects and is currently at the close out of stage 4. This has seen the station develop from initial feasibility – which provided an understanding of options and constraints – to an outline design that has secured Network Rail technical design approval. Using this process has ensured rail industry support for the scheme and demonstrated that the station is deliverable. Further details of each stage completed to date in project development are shown below:

Stage	Remit	Outputs	Key findings
1	Project Definition	Initial Appraisal Report and Project Brief	Strong business case for station MoU with NR and FGW
2	Feasibility	Feasibility Report - on constraints and options	Preferred station site selected and initial cost understood
3	Option Selection	Site surveys and Option Selection Report	Initial design developed and optioneering completed
4	Single Option	Approval in Principle design submission and Planning Application	Approval Principle design approved by Network Rail and planning consent gained

Evidence of Similar Projects

The delivery of Marsh Barton station builds heavily on the development and delivery of Newcourt station. This project was developed alongside Marsh Barton station but, following the award of funding from the New Stations Fund, was accelerated for delivery by December 2014. Newcourt station is one of only four stations funded through the New Stations Fund and is on course to be delivered on programme and on budget. Having developed both stations together the same project team will move from delivery of Newcourt onto the delivery of Marsh Barton.

Specific examples of how the successful experience with Newcourt station will be transferred to Marsh Barton are:

- Governance arrangements for Marsh Barton build on those in place for Newcourt, in particular utilising the existing Newcourt Project Steering Group to form the basis of the Project Steering Group for Marsh Barton. The Newcourt Steering Group provides a proven and effective forum to manage risk and oversee project delivery. It has also established a collaborative working arrangement with both Network Rail and First Great Western provides both oversight and ownership of the project within the rail industry.
- In a similar manner the collaborative approach, working with NR and Train operators, taken to develop timetable alterations for Newcourt will be rolled forward to deliver necessary changes for Marsh Barton. This is particularly important as to secure Network Change, a key statutory approval to construct the station, support is necessary for the required timetable changes from all affected operators.
- The procurement route and contract form (NEC3 Option A Priced contract with Activity Schedule) proposed for Marsh Barton was utilised in the procurement of a Design and Build contractor for Newcourt station. Once again the procurement team assembled for Newcourt will once more be mobilised for Marsh Barton.

In summary the processes, structures and personnel assembled to deliver Newcourt station will be moved on as part of a rolling programme to deliver Marsh Barton station.

Programme / Project Dependencies

As previously noted the project is dependent on a small number of key factors including:

- Securing funding both LTB contribution and local contribution from Section 106 or Community Infrastructure Levy
- Development of an appropriate timetable
- Land transfer of a small parcel of land from Exeter City Council
- Diversion of a footpath across the railway and associated level crossing closure

Local Transport Board

Within the project programme there are also a range of internal project dependencies, which affect the completion of individual project milestones. These are summarised below.

Milestone	Dependent upon...	Because of...
Planning Approval	Agreement on footpath diversion plan	Plan to divert footpath must be agreed with NR before NR withdraw objection
Contract Award	LTB Funding Approval	Financial risk
	Asset Protection Agreement with NR	To cover NR costs and approvals
Network Change	Completion of agreed timetable solution	Potential for objections from affected train operators
	Footpath diversion and crossing closure	ORR refusal on safety grounds
Construction Activities	Possession availability	Need for abnormal possessions for certain activities
	Haul Road options	Impact on site access and transport arrangements
Station Opening	Acceptance of timetable bid by TOC	Need to include within working timetable and crew diagrams
	Agreements with TOC	TOC agreement to operate and bring into use
	ORR safety and conformance sign off	Statutory safety and interoperability process

Governance, Organisational Structure & Roles

Senior Responsible Owner	Jamie Hulland	Project Sponsor	Matt Barnes
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The management of the development and delivery of this project will be undertaken by Devon County Council and will follow Network Rail's Governance for Railway Investment Projects process. Following the experience gained with Newcourt Station representatives from Network Rail and First Great Western will be fully integrated into the Governance structure. The proposed structure is shown in the diagram at the bottom of this section.

The role of Corporate Board will be fulfilled by a wider Devon Metro Programme Steering Group responsible for providing overall strategic direction to the scheme as part of the wider Devon Metro. The group is made up from representatives in the form of Senior Officers from Devon County Council plus representatives from strategic stakeholders to oversee the business case for the project. The Corporate Board has the following responsibilities:

- Providing strategic direction to the project
- Ensuring coordination of the partners
- Ensuring political support to the project
- Delegates authority to ensure effective delivery to the Project Sponsor

Membership of the Project and Programme Steering Groups is summarised below.

Member	Key Roles and Responsibilities	Resourced
Devon Metro Programme Steering Group		
Jamie Hulland	Transport Planning and Road Safety Manager	Devon County Council
Network Rail	To be confirmed	To be confirmed

Local Transport Board

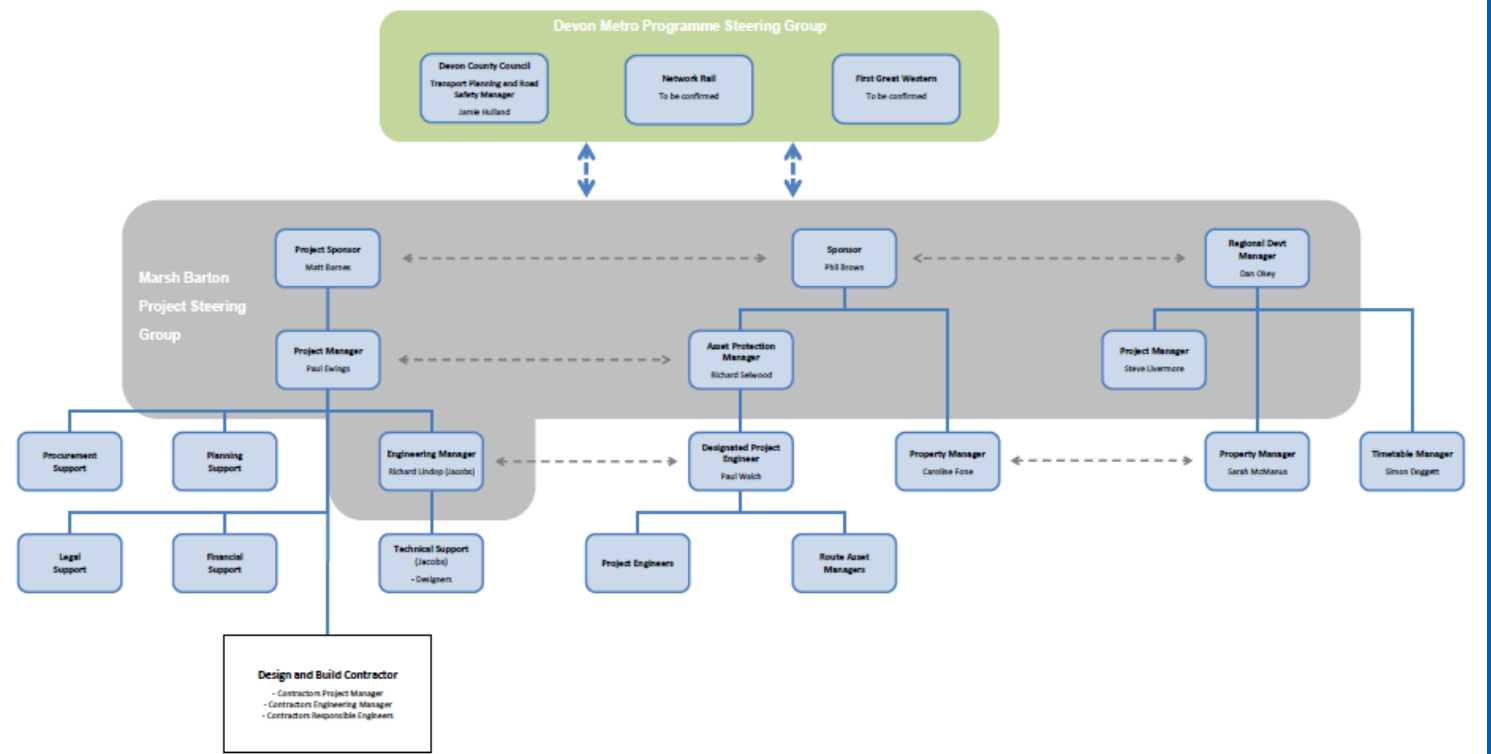
First Great Western		To be confirmed	To be confirmed
Marsh Barton Station Project Steering Group			
Devon County Council	Matt Barnes Paul Ewings Richard Lindop	Project Sponsor Project Manager Engineering Manager	Transport Planning Team Engineering Design Group Jacobs
Network Rail	Phil Brown Richard Selwood	Sponsor Asset Protection Manager	Route Enhancement Team Asset Protection Team
First Great Western	Dan Okey	Regional Development Manager	Regional Development Team

The role of Project Board will be fulfilled through a Project Steering Group responsible for providing direction to the project; representing the interests of the business case, those who will receive the benefits of the project and those responsible for the supplying the project outputs. Meetings will be held at regular intervals, with further meetings as necessary where a specific decision is required. The Project Steering Group has the following responsibilities:

- Accountability for meeting the project objectives and the success or failure of the project
- Providing resources and authorising the necessary funds
- Providing the necessary approvals from one delivery stage to the next
- Ensuring effective decision making and communication
- Providing direction and support to the project manager
- Ensuring effective delegation
- Change management and project assurance
- Checking the project is on track to meet the business case
- Approving all major plans

The project will be managed through regular meetings of the Project Steering Group and monthly progress meetings of the Project Delivery Team. This team, made up from the Project Sponsor, Project Manager, and Engineering Manager are responsible for:

- Monthly review of progress against targets and programme
- Providing direction to the technical delivery of the project
- Regular review of the risk register and corrective action as necessary
- Regular review of the issue log and agreeing proposed actions



Are governance arrangements in place?

Yes

Risk Management Strategy

A Risk Register, and Quantified Risk Assessment, has been developed to identify the range of risks that could impact on the project and suitable mitigation measures to manage them. The key risks that have been identified are:

Risk	Mitigation status	Calculated Risk Value
Temporary haul road cannot be provided	Action: Early site investigation Impact: Reduces risk and provides early warning	£350,000 (20% likelihood)
Insufficient possessions available to complete works	Action: Early engagement with FGW and NR Impact: Reduces risk	£60,000 (40% likelihood)
NR upholds planning objection due to footpath crossing safety concerns	Action: Apply for footpath diversion Impact: Removes risk	£60,000 (25% likelihood)
Unidentified contaminants or other hazardous material on site	Action: Contamination testing at GRIP5 Impact: Reduces risk and provides early warning	£50,000 (30% likelihood)
Timetable cannot be amended to provide station calls	Action: Engagement with affected TOC's through timetable planning process Impact: Reduces risk and provides early warning	£50,000 (20% likelihood)
Objections to Network Change	Action: Engagement with affected TOC's through timetable planning process Impact: Reduces risk and provides early warning	£50,000 (20% likelihood)

Has a risk management strategy/plan been completed?

Yes

Have key risks been identified and managed?

Yes

Project Plan

The key milestones for the project are:

Milestone	Schedule
AIP approval	Dec '13
Planning approval	Mar '14
OJEU notice	Apr '14
Programme entry approval	July '14
Invitation to tender	Nov '14
APA signed	Dec '14
Full Business Case approval	Mar '15
D&C contract award	Aug '15
Detailed Design approval	Dec '15
Site Mobilisation	Dec '15
Completion on site	July '16
Station opens	Sep '16
Snagging complete	Oct '16
Submit H&S file to ORR	Nov '16
ORR safety signoff complete	Dec '16

A full Project Plan and Programme are included within Appendix 7 and 8 respectively.

Communications and Stakeholder Management

The range of stakeholders and their potential influence on the project was covered in detail within the Strategic Case. However, in summary the key stakeholders are:

- Department for Transport
- Office of Rail Regulation
- Network Rail
- First Great Western
- Cross Country Trains
- South West Trains
- Freight Operating Companies
- Exeter City Council
- Members of Parliament
- City and County Councillors
- Devon and Cornwall Rail Partnership
- Torbay Line Rail User Group
- Avocet Line Rail User Group
- Marsh Barton Business Forum
- Alphington Residents Forum

Further detail can be found within the Stakeholder Management Plan which is available within Appendix 12.

Assurance & Approvals Plan

Project assurance is being undertaken in accordance with Network Rail's Governance for Railway Investment Projects. This includes the allocation of a Network Rail Sponsor, Project Manager and Designated Project Engineer to independently support the management and development of the project.

Technical assurance of design and construction activities is supported by the Designated Project Engineer who implements Network Rail's technical approval processes. All designs must be signed off by both a Network Rail Asset Engineer and the relevant Asset Manager, providing a form of peer review of design proposals and construction proposals. In addition, to support the independent technical acceptance of the station by the Office of Rail Regulation, a suitably accredited independent conformance engineer will be procured to provide conformance services in connection with the Common Safety Method and Railways Interoperability Regulations.

Management assurance will be responsible for ensuring the project is managed to the appropriate standards. This assurance will be provided by the Project Steering Group, with oversight from both Network Rail and First Great Western to provide an element of peer review of the project. Stage gate reviews will be held with the Network Rail Sponsor at key stages in the process, including at the completion of Stage Gate 5 (Detailed Design) before construction commences.

Programme / Project Reporting

Reporting will generally be by exception but a project on a page report would be utilised to provide quarterly reports to the Devon Metro Programme Board.

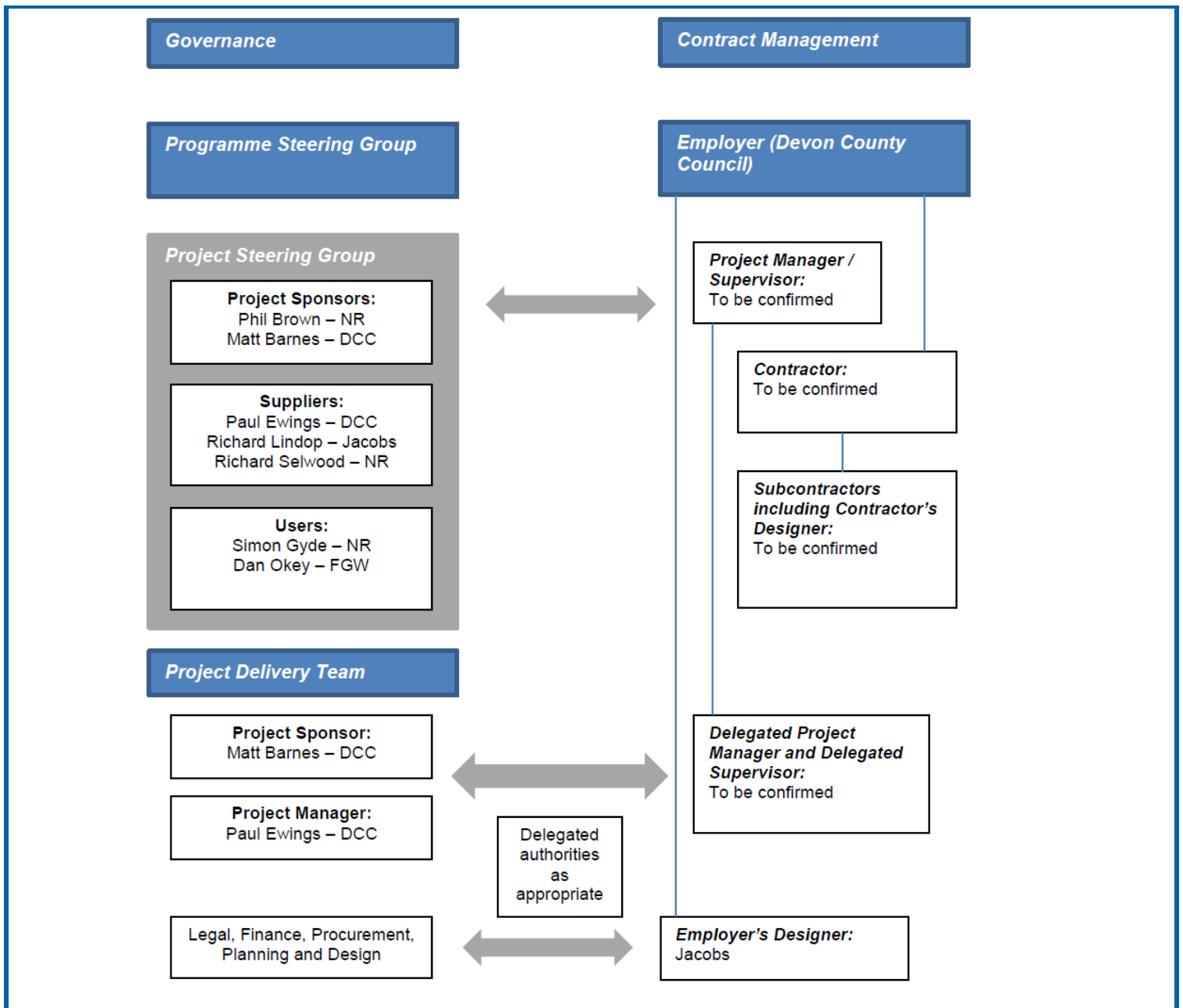
Key Issues for Implementation

No issues have been identified.

Contract Management

The following diagram summarises the interface between contract management and the project governance structure. As a general rule the same personnel who developed and tendered the project will undertake contract management providing excellent management continuity within the project.

Local Transport Board



Benefits Realisation Plan

A combined Benefits Realisation Plan and Monitoring and Evaluation Framework has been produced and is available within Appendix 13.

The Benefits Realisation Plan section identifies high level benefits and how these will be managed, measured and monitored. The high level project benefits are:

- Modal shift from car to rail for travel to Marsh Barton
- New travel opportunities for travel to Marsh Barton
- Reduced pressure on highway corridors into Marsh Barton
- Completion of development within Marsh Barton and South West Exeter
- Improved public transport accessibility
- Better employment opportunities for those without a car

Monitoring and Evaluation

A combined Benefits Realisation Plan and Monitoring and Evaluation Framework has been produced and is available within Appendix 13.

The Monitoring and Evaluation section sets out how the scheme will be evaluated post construction, using data gathered pre and post construction and building upon the evaluation of benefits. This evaluation will include:

- Scheme objectives;
- Scheme build;
- Delivered scheme;
- Outturn costs; and
- Value for Money.

Contingency Plan

Summary arrangements for contingency management will be included in the full business case submission.