

South Bristol Link
Major Scheme Business Case

5 Commercial Case

The procurement strategy and management of commercial risks



5 Commercial Case

5.1 INTRODUCTION

This Chapter sets out how the West of England Authorities (“the Authorities”) propose to procure the South Bristol Link (SBL) and manage the associated risks. It includes:

- **Procurement Strategy:** - discussion of the review of procurement options and identifies the preferred procurement routes for the scheme.
- **Commercial Risk Management:** - discussion of the main potential commercial risks, mitigation and management measures.

Major Scheme Business Cases for Programme Entry stage are required to indicate what the preferred procurement route is for the scheme and an explanation of how and why this was identified as the preferred procurement route. The Authorities at this stage have identified a number of potential procurement routes with regard to public transport service provision and this will require further detailed work in preparation for the Conditional Approval stage.

The Scheme has been designed to enable construction, operation and maintenance to be undertaken using established and well known procedures and techniques wherever possible. Where the public transport elements involve more bespoke or innovative approaches, such as open access arrangements to infrastructure and the need to set standards, the Authorities have already established relationships with other scheme promoters to share best practice and learn from experience, thus developing an informed approach to the procurement strategy and commercial risk management.

It is recognised that, with the increased levels of funding coming through this bid, the Authorities will have to ensure that adequate technical capacity, wider resources and risk management processes are available to enable delivery of the commercial aspects of the scheme. The discussion of resources is set out in Chapter 4.

5.2 OUTLINE PROCUREMENT STRATEGY

In assessing procurement options and identifying a preferred approach the following steps have been taken:-

- Identification of the objectives of the procurement process.
- Analysis of strengths, weakness, opportunities and threats (SWOT) of different procurement options and the ability to meet the procurement objectives.
- Assessment of the likelihood or risk of meeting the scheme objectives.
- Consideration of the financial implications of different options.

5.2.1 Procurement Objectives

The objectives of the procurement strategy are to ensure:-

- all scheme elements that require procuring are identified;

- timely and cost effective procurement consistent with the overall delivery programme;
- the process is consistent with all legal requirements; and
- contract requirements can be delivered over the length of the programme.

5.2.2 Scheme Objectives

The local objectives of the SBL are:

- To facilitate regeneration and growth in South Bristol;
- To reduce congestion in South Bristol and adjacent areas of North Somerset;
- To improve accessibility from South Bristol to the city centre and to strategic transport links, including the trunk road network and Bristol International Airport [BIA].

5.2.3 Rapid Transit Objectives

The sub-region's ambition for Rapid Transit is to provide a new transport mode that has the characteristics, levels of service and operational performance of a tram, but without the constraints of fixed rail infrastructure. This will be delivered through the design and specification of service attributes, which meet the scheme objectives. In considering the procurement options available the Authorities will need to have confidence that the rapid transit objectives will be realised and that the scheme will also meet the expectations of service users, the wider public and stakeholders.

The Rapid Transit Objectives are to:-

- Extend choice of transport modes for all, in particular for private car drivers to encourage a shift to public transport.
- Promote sustainable development by providing high quality public transport links.
- Improve access to public transport areas that currently have poor provision.
- Improve integration of the public transport network.
- Promote social inclusion by improving access to employment, retail, community, leisure and educational facilities.
- Improve safety along the corridor by reducing use of private cars.

In order for Rapid Transit to offer an attractive, competitive choice to car drivers the characteristics of rapid transit must include:-

- Stops that are a reasonable walking distance from key origins and destinations.
- A system (vehicles and infrastructure) that is high quality and DDA compliant.

- Services that are reasonably affordable compared with the real costs of other journey options.
- Services that offer comparable or improved journey times and journey time reliability when compared with the private car.
- Services that are reliable and easily understood
- A system that offers simple to understand routing, including interchange opportunities.
- Easily accessible information on routes, service frequencies, first/last services and fares.
- High quality waiting areas.
- A system that is designed to maximise safety and the perception of safety.
- A system that offers high quality information, particularly when things are not running to schedule.

These objectives and system characteristics have resulted in a set of design parameters for the scheme, which include:-

- A high quality service where vehicle, service frequencies and fares are consistent with the vision described by the sub-region;
- Relatively fast journey times through investment in busway infrastructure and priorities measures en route. The measures include bus segregation, bus lanes and signalling priorities.
- A process that is scalable, so that over time, services can be added incrementally and efficiently to allow the extension of the strategic network;
- Affordability – by maximising the investment made by the private sector (developers and transport operators);
- Interoperable ticketing – to facilitate ease of use and interchange;
- Integration – to facilitate the use of extended/connecting services feeding into and from the core network.

The design characteristics, scheme objectives and procurement objectives underpin the procurement option assessment process.

5.3 INFRASTRUCTURE ELEMENTS OF THE SCHEME

5.3.1 Construction

The types of construction work for the Link are described below.

The SBL Rapid Transit starts from the Long Ashton Park & Ride site and links with the planned Rapid Transit Ashton Vale to Temple Meads route into the city centre. The Rapid Transit link incorporates a combined pedestrian and cycleway. Both the cycleway and the concrete construction guided busway would be built on a low embankment to raise it above the flood level.

The single carriageway highway has a separate roundabout junction with the A370 Long Ashton Bypass, south-west of the Park & Ride site. Construction of the roundabout would require appropriate traffic management. The road construction would be a traditional flexible road construction on embankment where it crosses flood plain. Both the new road and guided busway would be served by positive drainage. Flood storage provision would be made between the two arms of the Link. New cycleways would be provided alongside the new road to link with wider provision for cyclists in North Somerset.

In this area there are a number of old waste tips that would be affected by the proposed works. Measures would need to be taken to avoid pollution of the environment.

The Rapid Transit and highway routes head south across Ashton Vale, merging at a junction that would provide access to South Liberty Lane. The junction would be signalized. A Rapid Transit stop would be constructed near the junction with high quality shelters, CCTV and real-time information displays. The combined Rapid Transit/highway then crosses underneath the main railway line, which requires a new bridge structure to permit 2 highway lanes, 2 Rapid Transit lanes and a pedestrian/cycle way.

South from the railway bridge, the SBL climbs the Colliters Brook valley to a new junction with the A38, which requires a southbound highway climbing lane for slow vehicles. As it climbs the side of the valley, the SBL may require earth retaining measures to support the exposed cutting slopes.

The junction with the A38 would be a roundabout with partial signal-control to manage the interaction between general traffic and the Rapid Transit vehicles. A Rapid Transit stop (Castle Farm) would be constructed to the west of the new roundabout. To the east of the new roundabout, the Rapid Transit vehicles would make use of centrally located bus lanes. Construction of this part of the Link would be in traditional flexible road construction with positive drainage.

After crossing Highridge Common the Link would incorporate a new junction of Highridge Green/Highridge Road/King George's Road, which would be signal-controlled and with an adjacent Rapid Transit stop. SBL would follow Kings George's Road, which would be widened to 2-lanes for general traffic and 2-lanes for Rapid Transit with residents' parking and landscaping areas on both sides, a foot/cycle path on the north side and a footway on the south. This layout can be accommodated on highway authority land. Crossing facilities would be provided for pedestrians and cyclists. During construction measures would be required to maintain access for residents.

The SBL junctions with Queen's Road and Hareclive Road would be signal-controlled, with adjacent Rapid Transit Stops; in between, the SBL layout would be similar to that on King George's Road. Beyond the Hareclive Road junction, the SBL joins Hengrove Way at the Caters Road Roundabout. One lane of Hengrove Way would be resurfaced as a bus lane that would extend to the Hengrove Way and Whitchurch Lane Roundabout. A new stop would be provided here to allow interchange with other public transport services. New construction would stop at the roundabout and the Rapid Transit vehicles would

continues to a new terminus at the South Bristol Hospital to be built in Hengrove Park.

Public rights of way would be maintained, with diversions if required.

Construction – Rapid Transit Elements - In addition to the above works there are a number of system wide elements required. These are:-

- Intelligent Transport Systems – bus mounted tracking equipment
- Real Time Public Transport Information (RTPI).
- Rapid Transit Stop furniture and ticketing
- CCTV monitoring at stops and on vehicles.

5.3.2 Construction risk sharing

It is planned that works will be procured through a design and build contract.

Construction involves risk and much effort has been focussed on eliminating such risk. Where risk cannot be eliminated clients may transfer risk to contractors through design and build contracts, in theory giving contractors more control of the project and therefore more opportunity to manage risks directly.

New Engineering Contract (NEC) Options C and D are the most widely used variants in civil engineering. They are both target cost contracts and include a mechanism for sharing risk and opportunity. Whilst the client to the contract retains the cost and time risk linked to contractual changes, the financial effects of cost overruns can be shared between the client, the contractor and his suppliers. By setting the gain / pain mechanism under the contract the client can modulate its exposure to risk. Used effectively, target cost contracts can give the incentive to deliver a project on time and to budget. It is however possible to increase a target during the construction phase through a compensation event process.

This approach is best suited to well defined schemes such as the SBL which has already benefited from a level of feasibility design which would be enhanced prior to going to tender.

5.4 PROCUREMENT OPTIONS

A review of options has been undertaken for the construction of the Link and the system wide elements.

5.4.1 Infrastructure Elements

Construction of the new roads and the segregated Rapid Transit link are additional to the 'regular' works delivered through existing tendered contracts. Therefore a review of options has been undertaken using SWOT analysis, a planning method used to evaluate the Strengths, Weaknesses, Opportunities and Threats of the available options.

The options considered are:-

- Build only contract.
- Design and build contract.
- Early contractor involvement.
- PPP/PFI.

The features of the different options are listed below.

Build Only Contracts have the following features:-

- Strengths
 - A competitive price through tendering
- Weaknesses
 - Extended programme to allow for detailed design prior to tender.
 - No input from Contractor – “buildability”
 - Incentive to bid low and claim.
 - Increased risk of failure at public inquiry due to lack of contractor involvement.
 - No linkage between service provision and operation
 - No linkage between construction costs and income streams.
- Opportunities
 - Long experience of contract type.
 - Opportunity to divide works into packages and support emerging local contractors.
- Threats
 - History of claims associated with this procurement method.

Early Contractor Involvement Contracts have the following features:-

- Strengths
 - Co-operation between designer and contractor leading to optimum design
 - Best value achieved through early contractor input
 - Early pricing by the contractor leading to improved cost certainty
 - Robust Orders improving probability of success at Planning and Public Inquiries
 - Incentivisation through pain/gain mechanism
 - Continuity through design and construction
 - Improved CDM through input on buildability
 - Reduced programme through reduced delay between decision making and construction start.
- Weaknesses

- Difficulty in demonstrating value for money
- Lack of price certainty in practice –difficulty in compiling an accurate Employer’s Budget and impact of construction and actual costs.
- Higher costs during the planning stage (should be offset by later savings).

Design and Build Contracts have the following features:

- Strengths
 - Greater cost certainty using pain/gain
 - Shorter delivery programme
- Weaknesses
 - The lowest tendered price might exceed budget
 - Risk of confrontation should risks not be correctly allocated or priced
 - Opportunities for the contractor to manipulate the Target Cost through the exclusion of risk
 - Little Opportunity for Contractor to influence construction methodology during the design stage.
 - Greater risk of failure at public inquiry due to lack of early involvement.
 - Contractor will only provide level of quality defined in the Specification

PPP/PFI Contracts have the following features:-

- Strengths
 - Improved efficiency owing to the integration of design, finance and operation.
 - Improved risk management over the life of the project.
 - Stability in service delivery due to length of contract.
- Weaknesses
 - A complex and time-consuming process.
 - Very high initial cost of delivery.
 - Most previous local authority schemes procured through PPP/PFI are still in early stages of service development.
- Opportunities
 - The Contractor arranges for finance for project assets.
- Threats
 - Availability of credit may be restricted.

A summary of the strengths, weaknesses, opportunities and threats are provided in Table 5.1.

Table 5.1 SWOT Analysis of Procurement Options – Infrastructure

Option	Strengths	Weaknesses	Opportunities	Threats
Build Only Contract	Competitive price	Longer Programme No Contractor input Bid low and claim Public Inquiry Risk No Operation link No Costs / Revenue link	Well understood Work in packages	History of claims
Early Contractor Involvement	Optimum Design Contractor input Early pricing Robust Orders Pain / Gain Continuity to works Improved CDM Reduced Delay	Demonstrating Value No Price Certainty Higher preparation costs		
Design and Build Contract	Cost Certainty Shorter Delivery	Budget Risk Allocation of Risks Target manipulation No Early Design Public Inquiry Risk Specification Risk		
PPP/ PFI	Improved efficiency Risk Management Service Delivery	Complex High Cost of Delivery Early stages	Finance arranged	Credit restrictions

A procurement options risk assessment has been undertaken and acts as a sifting process to eliminate options that will not deliver the scheme objectives and to shortlist options that warrant further consideration.

The following scores were used: None = 0, Low = 1, Medium = 2 and High = 3.

The highest possible score was 9 and the risk rating was spread uniformly as follows:

- Low Risk 0 to 3
- Moderate Risk 4 to 6
- High Risk 7 to 9

Table 5.2 shows that the procurement option with the highest likelihood of meeting the procurement objectives is a Design and Build Contract. At this stage a design and build procurement strategy is favoured with a single contract let. This will be reviewed in detail at the next stage of scheme development.

Table 5.2 Procurement Options Risk Assessment

Criteria	Build Only	Design and Build Contract	Early Contractor Involvement	PPP / PFI
Ensure timely and cost effective procurement	High	Low	Medium	High
Consistent with Legal Requirements	Medium	Low	Low	Medium
Ensure Contract requirements delivered over the length of the Programme	Medium	Low	Low	Medium
Aggregate Score	7	3	4	7
Risk rating	High	Low	Moderate	High

5.4.2 Rapid Transit System Elements

For the Rapid Transit system elements, there are already existing contracts in place which have been through a competitive procurement process and therefore assessed to be value for money. Use of existing or extensions to existing contracts will be used to deliver these works where possible.

Real Time Passenger Information (RTPI) will be provided at stops and electronic visual and audio information on board vehicles, such as next stop announcements. There is already an established real time information system in Bristol using GPS and a Private Mobile Radio (PMR) communication system. Rapid Transit vehicles will be fitted with an on-board computer linked to the ticket machine, providing 'real-time' departure times at electronic bus stop displays and via www.nextbusbristol.co.uk.

Bristol City Council (BCC) has an existing RTPI system, provided by ACIS. This is currently being retendered to allow expansion as part of the Greater Bristol Bus Network (GBBN). The technical specification will allow for additional expansion, over and above GBBN, so that the Rapid Transit elements can be linked into the system.

The provision of ITS equipment comprising CCTV cameras, fibre cabling and cabinets, are included within the contract provision of the main works contract as access to the works areas and power provision will be dependent on the main construction works timescales. This will include the communications to link all of the systems together. All of the Power supplies will be provided in this manner including street lighting, shelters, ticket machines, CCTV and traffic signals.

The provision of the electronic equipment, cabling and street furniture for traffic signals is contracted with Siemens until 2013. Bristol City Council (BCC) believes these existing arrangements offer value for money and would seek to continue the arrangement with Siemens or an equivalent after a competitive tendering procurement process. It is suggested that the specialist contractor would be included in the construction contract as a novated sub-contractor. This will be reviewed at conditional approval stage however is likely to be retained given the increased flexibility it will offer. It is proposed to let a specific, traditional contract for stop furniture and ticketing. BCC has established relationships with providers of shelters and ticket machine providers.

5.4.3 Provision of the Rapid Transit Service

It is anticipated that the Rapid Transit Service will be an extension of the service proposed between the Ashton Vale Park and Ride site and the City Centre. Preparation of documentation for that service is currently being prepared and incorporation of appropriate clauses to allow for extension of the service is planned. In view of this, assessment of different procurement options is not considered appropriate for this bid submission.

Currently it is not envisaged that major commercial bus services serving the A38 or other local roads in South Bristol will chose to use the new extended public transport corridor into the city. It is, however considered that the bus service from Bristol International Airport would benefit from the journey time saving without loss of existing patronage. It is envisaged that the operators of the airport bus would pay an access fee to use the new link.

5.5 COMMERCIAL RISKS

The procurement strategy has been developed taking account of the commercial risks identified to date. During the next phase of scheme development for Conditional Approval, the strategy will be developed in further detail, including the process for managing commercial risk. Continued integration with the general risk management process will be maintained and reflected in the Quantified Risk Assessment (QRA) to ensure that all risks are identified and managed and to ensure that no risks fall between the two processes.

The main commercial risks identified are:

- The need to secure appropriate inclusion in the provision of the Rapid Transit service for the Ashton Vale to Temple Meads and City Centre Service
- The need for the Ashton Vale to Temple Meads and City Centre Service to be operational at Scheme opening
- The patronage of the Rapid Transit Service that if insufficient, would require a subsidy to allow it to continue.
- The financial implications for the authorities in respect of the continuity of service provision of the above services and the future development of the Rapid Transit Network in the sub-region.

5.5.1 Analysis of the local market for bus services

Assuming the Ashton Vale to Temple Meads service is operational, the Scheme would extend the Rapid Transit line and increase the potential patronage. The marketplace for bus services is moderately buoyant. There are two large bus operators First and Wessex Connect, with several smaller operators providing commercial and contracted bus services in the area.

There is a good degree of competition for contracted bus services of this type. In the most recent tender rounds for Park and Ride services (including the Long Ashton Park and Ride) an average of three tender bids were received.

Commercial bus service competition is more limited and there is little route competition between bus operators for bus services along corridors between Bristol and North Somerset and none in the suburban areas crossed by the Link.

5.5.2 Marketplace capacity, revenue risk and strategic considerations

Early modeling of potential patronage for a public transport link between the Ashton Vale Park and Ride Site and Hengrove suggested that demand would be low. Since that time the design has been refined and modeling now assumes that the Rapid Transit element of the Scheme would be a continuation of the proposed Ashton Vale to Temple Meads Service. As part of an extended Rapid Transit Service, predicted patronage figures are much improved but this now introduces a requirement that the earlier scheme is in place for the SBL Rapid Transit to be successful.

For the proposed Ashton Vale to Temple Meads Scheme, there are some limited concerns over the capacity and appetite of the marketplace to deliver the Rapid Transit service and corridor bus services. The underlying local factors and dynamics are such that there is an effective marketplace for contracted services while the extent of commercial bus service competition is more limited.

Taking account of this local context in consideration of the procurement options for the Rapid Transit service, it was concluded that the efficiency and effectiveness of the bus service marketplace would not be materially affected whether services are provided on a contracted or a commercial basis.

The main difference between whether services are provided on a contracted or a commercial basis is which party takes the revenue risk (the authorities or the operator). This raises a strategic procurement consideration as the modelling work undertaken for Ashton Vale to Temple Meads indicated that fare revenue was likely, in time, to exceed the operating costs of providing the Rapid Transit service, potentially yielding an operating surplus. This would be influenced by the total patronage of the extended link and any income from access charges. Further work is needed to refine the assumptions and examine the revenue risks in more detail. This work will be undertaken during the next phase of scheme development for Conditional Approval.

For Ashton Vale to Temple Meads three procurement options were short listed as the most practical means for securing the provision of the Rapid Transit service: -

- A Quality Contract

- A TWA / Licensing Approach
- A Contracted Service

As it is assumed that the SBL Rapid Transit service would be provided as an extension of the Ashton Vale to Temple Meads service it is not intended to assess the differences between these procurement options.

5.6 SUMMARY

In summary:-

- The Authorities have established a framework for identifying and assessing procurement options, which includes Procurement Strategy objectives.
- Where the Rapid Transit Scheme involves more bespoke or innovative approaches, such as open access arrangements to infrastructure and the need to set standards, the Authorities have already established relationships with other scheme promoters to share best practice and learn from experience.
- Construction of the road, on street works and the segregated route are additional to the 'regular' works delivered through existing tendered contracts. Therefore a review of options has been undertaken. This shows that a design and build procurement strategy is favoured with a single contract let.
- For Rapid Transit system elements existing contractual relationships exist which have already been assessed for value for money and deliverability. It is proposed that the service provider at the time will be novated to the contractor for the civil works. This will again be reviewed at Conditional Approval stage.
- The Authorities at this stage have identified a number of potential procurement routes for the Ashton Vale to Temple Meads service provision. This will require further detailed work in preparation for the Conditional Approval stage of that scheme. For the SBL it is assumed that whichever option is chosen for Ashton Vale to Temple Meads will be extended for the SBL Rapid Transit service.
- It is recognised that, with the increased levels of funding coming through this bid, the Authorities will have to ensure that adequate technical capacity, wider resources and risk management processes are available to ensure that the delivery of the commercial aspects of the scheme. The costs for this are included in the submission.