

# Wednesbury to Brierley Hill



## Business Case

Midland Metro Wednesbury to Brierley Hill  
Extension

Financial Case



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F1 – Cost Summary

## Financial Case Compliance

The table below, taken from the Department for Transport's guidance on its approach to making major investment decisions, *The Transport Business Case* (April 2011), demonstrates the Financial Case's fit with requirements.

Element	Addressed in MCF Case	Section
Introduction	Setting out approach to assess the affordability of the scheme	Chapter F1
Costs	Cost breakdown by year, component and funding source	Chapter F2 – Cost Estimation & QRA: Table 3.2; Appendix F1
Budgets/Funding Cover	Funding cover for the project	Chapter F3 – Local Funding

# F1. Introduction

## Background

- 1.1 This Financial Case has been developed in accordance with the DfT's Transport Business Case guidance. It presents the affordability of the Midland Metro Wednesbury to Brierley Hill Extension scheme.

## Outline of the Financial Case

- 1.2 The elements that describe the case are set out in two chapters. The chapters cover the following areas:
- Chapter F2 – Cost Estimation and QRA sets out the capital costs of the project
  - Chapter F3 – Funding describes the project funding arrangements

## F2. Cost Estimation & QRA

### Introduction

- 2.1 In preparing this business case, WMCA has carried out, through the Midland Metro Alliance, an initial estimate of the costs for implementing the project in order to ensure it provides a comprehensive, robust and reliable basis for the consideration of the Financial and Value for Money (Economic) Cases. This has considered all the major elements of the project, including trackwork and associated infrastructure, utilities diversions, land acquisition and tram purchase. The estimated cost is based upon a strong cost library using cost data from other similar schemes in the UK, informed by WMCA's recent experience in procurement in the light rail market.
- 2.2 The estimated capital cost including optimum bias for the extension of Midland Metro Wednesbury to Brierley Hill Extension scheme is shown in Table 2.1 below.

**Table 2.1: Project Outturn Cost Estimate including Optimum Bias (£M)**

Scheme element	Capital Cost	OB	Total
Metro	274.6	54.9	329.5
Trams	69.0	4.1	73.1
<b>Total</b>	<b>343.6</b>	<b>59.1</b>	<b>402.7</b>

### Optimism Bias

- 2.3 Transport projects are inherently risky and subject to uncertainties due to the long planning horizon and complex interfaces. Often the project scope or ambition level will change during project development and implementation due to uncertainty at the earlier project stages. Hence, a certain degree of budget uncertainty exists which will typically be reduced through the project cycle.

- 2.4 To address the tendency for appraisers to be overly optimistic about key parameters the **Green Book** (HM Treasury, 2003) suggests that appraisers should make explicit, empirically based adjustments to the estimates of a project's costs, benefits, and duration. These adjustments are based upon the appraisal of a number of contributory factors in the following categories:
- Procurement – complexity of contract structure, Involvement of contractor in design, contractor capabilities, government guidance, disputes and claims and information management
  - Project Specific – design complexity, degree of innovation and environmental impact
  - Client specific – adequacy of business case, number of stakeholders, funding availability, project management team and project intelligence
  - Environment – public relations, site characteristics and permits/consents/ approvals
  - External Influences – political, economic, legislation/regulations and technology
- 2.5 In accordance with DfT guidance in relation to the value for money appraisal only, adjustments for optimism bias, applied on top of the identified QRA, have been based upon the empirical data available and reflect the characteristics of the costs under consideration.
- 2.6 For Metro there is a strong body of understanding and knowledge in relation to the cost estimates due to the ongoing experience of delivery of the BCCE and Fleet Replacement. In addition, for this scheme, Transport and Works Act Orders are secured and implemented, greatly reducing uncertainty around designs and the likelihood of externally imposed changes to the project that are inherent in the statutory processes.
- 2.7 As recognised in WebTAG, the level of optimism bias reduces as the development of a scheme progresses. As the Midland Metro Wednesbury to Brierley Hill Extension scheme is still at a preliminary development stage significant optimism bias has been applied to the costs. despite Orders being in place. Therefore, for the value for money appraisal an optimism bias value of 20% has been applied to the Midland Metro extension capital costs. WMCA will be procuring the works efficiently through its innovative Midland Metro Alliance, the focus of which will be drive efficiencies in development and construction through innovation and smarter working.
- 2.8 For the tram costs an optimism bias value of 6% has been applied as these are largely an “off the shelf” product in today’s market.
- 2.9 Any cost over the £343.6m will be borne locally with the government funding fixed at £207m.

## F3. Funding

### Introduction

- 3.1 This chapter presents the proposed approach for funding the Midland Metro Wednesbury to Brierley Hill Extension. It is based upon the scheme costs described in Chapter F2 and set out below. The scheme is proposed to be funded from devolved Local Transport Growth Deal Funding, together with significant funding from Central government and WMCA Contribution.

**Table 3.1: Outturn Scheme Cost Estimate (£m)**

Scheme element	Preparatory/ Advanced Works Costs	Base Scheme Costs	QRA	Total
Metro	1.8	251.3	21.5	<b>274.6</b>
Trams		69.0		<b>69.0</b>
<b>Total</b>	<b>1.8</b>	<b>320.3</b>	<b>21.5</b>	<b>343.6</b>

### Proposed Funding

- 3.2 In the GBSLEP Growth Deal announcement on 7 July 2014 the Government placed great importance on maximising the benefits of HS2.
- 3.3 The Growth Deal noted that HS2 is a game-changing opportunity for the West Midlands area, with two stations in Phase One: Birmingham Curzon in Birmingham city centre, and the Interchange in Solihull, adjacent to the NEC and Airport within the Hub of UK Central.
- 3.4 The Devolution Deal and HS2 Growth Strategy Implementation Plan identified the Wednesbury to Brierley Hill scheme as a high priority and subsequently included it as a named scheme costing £310m within the £8bn package of investment to provisionally be funded from two sources; £103m from WMCA contribution as part of the HS2 Connectivity Package and £207m from a separate ask to Government.

- 3.5 The Devolution Deal agreement made specific reference to this scheme in suggesting that as part of establishing a prioritised investment programme, the Combined Authority should bring forward business cases for individual transport projects for the government to consider, where required in line with existing agreements and processes, including the HS2 Interchange.
- 3.6 For WMCA to fully meet the maximum £343.6m current estimated cost, other funding contributions will be required to cover any expenditure above the £310m and therefore cover any risk expenditure incurred above that allowed for in the current cost estimate. Whilst the maximum cost outlined above exceeds this figure, further work to refine the scheme and the efficiencies to be developed within the Midland Metro Alliance give a good level of confidence that the project can be delivered within the originally identified funding envelope.
- 3.7 The original funding package proposed and the cost phasing has been adjusted for the current delivery schedule.

**Table 3.2: Annual Funding Requirements (£m)**

Wednesbury to Brierley Hill Extension (WBHE)	2016/17 & Prior	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	Total
Estimated Capital Cost (QCE)	2.0	4.0	13.6	12.2	39.0	126.1	117.1	29.6	343.6
<b>Funded By:</b>									
BCLGF	0.4								0.4
Government Funding		4.0	13.6	12.2	39.0	126.1	12.1		207.0
WMCA Contribution	1.6						101.4		103.0
Other Contribution							3.6	29.6	33.2
<b>Total</b>	<b>2.0</b>	<b>4.0</b>	<b>13.6</b>	<b>12.2</b>	<b>39.0</b>	<b>126.1</b>	<b>117.1</b>	<b>29.6</b>	<b>343.6</b>

- 3.8 Depending on the phasing of the DfT funding, WMCA funding could be drawn down first or in continuing to develop the scheme, WMCA will be required to cash-flow the early stage works until the Government funding is formally awarded allowing the scheme promoters to recover these sunk costs following the award of grant.
- 3.9 As set out in the Devolution deal a fixed contribution of £207m is anticipated from the Government with any upside cost risk borne locally.
- 3.10 As an alternative to a grant payment regime, WMCA has assessed the value of potential capital grants under the traditional project delivery method and also the implications of a 30 year devolution style grant which WMCA would use to borrow against to fund the programme. The funding method is subject to ongoing discussion with Government.
- 3.11 Importantly, any alternative devolution style funding mechanism will need to substantiate a “realistic prospect of funding” prior to WMCA submitting a Transport and Works Act Order (TWAO), as this is a requirement of the legislation. This is required to be in place to cover the full funding of the scheme by 30 November 2017 to meet the delivery schedule set out in this business case.
- 3.12 A devolution style grant would need to provide a minimum annual payment as set out in Table 3.3 below.

Table 3.3: Annual Funding Requirements (£m)

METRO FUNDING OPTIONS (BRIERLEY HILL ONLY)	CAPITAL GRANT BASED ON DELIVERY PROFILE	EQUIVALENT 30YR DEVO STYLE REVENUE GRANT	NPV VALUE OF 30 YEAR GRANT (at 3.5%)*	VARIANCE BETWEEN GRANT AND NPV OF 30YR REVENUE
CSR Period to 2021	£68.8m	£3.3m	£61.3m	£7.4m
CSR Period From 2021	£138.2m	£7.3m	£133.4m	£4.9m
TOTAL	£207.0m			

\* DfT Stated time value of money

## Local Funding

3.13 Funding for the Midland Metro Wednesbury to Brierley Hill Extension project is a mix of devolved local funding and national funding aimed at making the most of the opportunity of HS2, with the BCLEP devolved Local Transport and DfT funding comprising 51% of the total costs.

- BCLGF Funding of £0.4m
- DfT provisional allocation of £207m.

The local funding comprises the following elements:

- WMCA Contribution of £103m is funded as part of the HS2 Connectivity Package included in the WMCA devolution Investment Programme of £8bn.

3.14 If no other sources of external funding become available to WMCA to fully meet the £343.6m estimate, local funding will be required to cover any expenditure above the £310m and therefore cover any risk expenditure incurred above that allowed for in the current cost estimate and efforts will be focused on reducing costs via an assessment of programme float and value engineering.

3.15 Should the remaining funding gap need to be met from additional resources, options may include the re-prioritisation of existing project commitments or additional developer / Enterprise Zone contributions.

3.16 A final option may include WMCA prudential borrowing which would require an additional increase in the Transport Levy to fund the costs of the interest and principal on the loan. The impact of borrowing on the Authority of the full £33.2m, would result in an £1.7m annuity loan payment over 40 years at an interest rate of 4%.



Midland Metro Alliance  
7th Floor  
One Victoria House  
Birmingham  
B1 1BD

Telephone  
0121 643 8729

Visit  
[www.metroalliance.co.uk](http://www.metroalliance.co.uk)

