

FULL BUSINESS CASE (FBC)

A. GENERAL INFORMATION

A1. General

Project Title <i>(as per Voyager)</i>	Metro Birmingham Eastside Extension		
Voyager Code	CA-02703-08-4		
Portfolio / Committee	Transport & Environment Finance & Resources	Directorate	Inclusive Growth
Approved by Senior Council Officer	Philip Edwards 10/07/2020	Approved by Finance Business Partner	Simon Ansell 10/07/2020

A2. Outline Business Case approval

26th June 2018, by Cabinet

A3. Project Description

Summary

This Full Business Case (FBC) seeks approval for the Metro Birmingham Eastside Extension (BEE) to be developed to detailed design and constructed. It also seeks approval for the Assistant Director, Transport and Connectivity to develop, and deliver, any associated highway measures that complement the BEE delivery in consultation with the Cabinet Member for Transport and Environment. This includes any camera enforcement provision for the bus or tram.

The BEE project is being led by the West Midlands Combined Authority (WMCA) and Transport for West Midlands (TfWM) and is being delivered by the Midland Metro Alliance (MMA). The Digbeth High Street Public Realm Improvements scheme is being promoted by the Council and funded by the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) Enterprise Zone, for which the City Council is the Accountable Body. Although the public realm improvements scheme forms part of the overall BEE improvement, it has its own FBC. Should the development of the FBCs identify costs in excess of the estimated £15.000m, options for seeking alternative external funding and/or descoping the scheme will be pursued in order to contain the costs within the available funding envelope. WMCA/TfWM have noted that in the unlikely event that the DPR scheme does not obtain FBC approval, whilst the same level of planned public realm improvements could not be completed within their available budget an operational southern tram alignment will still be delivered. Any amendments would have to be agreed with the City Council.

The proposed strategy is for the MMA to deliver the Digbeth Public Realm Improvements scheme as part of 'Section 5' of their BEE construction, so that this section of the route is completed ahead of the Commonwealth Games in 2022.

Background

WMCA/TfWM developed proposals to extend the network out to the Eastside of Birmingham, providing connectivity to the new HS2 Curzon street station and to form a new cross-city route. This also complemented the City Council's longstanding plans for further investment and regeneration of Digbeth and the Eastside areas. It also facilitates longer term plans to extend the tram system out to Birmingham Airport. An application for an Order to be made under the Transport and Works Act 1992 Sections 1 and 5 was submitted to the Secretary of State for Transport in October 2016 for BEE. A local public inquiry followed in November 2017 at which no objections were raised. Following Cabinet approval of the BEE Project Definition Document (PDD), on 26th June 2018, WMCA/TfWM have developed the proposals to a preliminary design layout. This received an Approval in Principle from the Council on the 30th September 2019, and the Council identified areas where they wished to see further clarifications and detailed design development.

WMCA/TfWM pursued obtaining of their Transport and Works Act Order (TWAO) and this was received on the 15th January 2020 (the objection period for which ended on the 26th February 2020). The Department for Transport (DfT) devolved the funding to WMCA/TfWM for their FBC in March 2020. WMCA/TfWM will provide

the DfT with a monitoring and evaluation plan as evidence of how they are going to quantify the benefits of the scheme once it's built and operational.

WMCA/TfWM have proposed to divide the BEE route into five separate sections for detailed design and delivery, in order to allow for adjacent third-party developments (e.g. HS2) and network access. The delivery of the connection of the BEE tram tracks to the existing tram line at Bull Street/Corporation Street needs to be complete before the extension to Edgbaston is open to passengers in December 2021. WMCA/TfWM continue to liaise with HS2 Limited over delivery of the section within the proposed Curzon station works. Due to delays caused by HS2, the programme has changed from being delivered in 2022/23 to 2025/26.

WMCA/TfWM are developing the previously agreed preliminary design proposals to a detailed design level for approval by the City Council. Work is being undertaken jointly with WMCA/TfWM to identify any necessary associated highway measures. WMCA/TfWM are looking to commence utility diversion works in July 2020 with main construction completed in autumn/winter 2025. Passenger service is programmed for spring /summer 2026.

Scheme Details

The BEE comprises 1.7km of new twin track tramway which runs from the existing line connection at Corporation Street/Bull Street to Digbeth High Street via lower Bull Street, Albert Street, crossing Moor Street Queensway, New Canal Street (through HS2 station) and Meriden Street. This necessitates the demolition of buildings within the Martineau development site, including the MacDonald's restaurant on Dale End. The scheme incorporates Council led proposals to improve the public realm on Digbeth High Street. This will see the tram run on segregated track on the southern side of the existing dual carriageway corridor (between Meriden Street and Adderley Street). The highway will be reduced to a two-way single carriageway on the northern side of the corridor. A localised restriction for public transport use (buses, hackney carriages and cycles) only will be implemented within the new single carriageway between the Floodgate Street and Chapel House Street junctions.

Some complementary restrictions are proposed to turning movements on the side streets that allow servicing to local businesses but prevent the High Street being used as a through route to the car-parks etc. This is expected to put more traffic onto the adjacent network roads, such as Bradford Street. These changes will help to make bus journeys, including SPRINT, more reliable as the High Street will become a public transport corridor with interchange between bus, tram and the Digbeth Coach station. If the public realm scheme is not taken forward, it would require the reconsideration of the tram design in this area within the existing High Street dual carriageway corridor. Any changes must be made in agreement with the City Council.

Works Co-ordination

The need to construct the works in a safe manner for both road users and construction workers will result in a period of traffic disruption. The City Council will work with WMCA/TfWM and their contractor(s) to minimise traffic disruption during construction by seeking to coordinate programmed activities, maximise available road space and minimise traffic demand along the whole corridor. This will include:

- Co-ordination of all construction projects along the corridor to ensure potential conflicts are managed and eliminated;
- A phased construction approach to optimise the available road space available at key times to help to keep traffic moving;
- The City Council's Traffic Management Protocol process will be in place to manage approvals for the contractor's temporary traffic management proposals; and

Co-ordination with Travel Demand Management strategies for other schemes to manage the level of demand and promote alternative modes and times of travel.

A4. Scope

This FBC covers the Metro Birmingham Eastside Extension scheme from its tie-in to the existing line, at Corporation Street / Bull Street, to a tie in point within the proposed segregated tram area of Digbeth High Street. It seeks approval to the scheme and for the City Council to enter into legal agreements with WMCA for delivery of any associated highway measures (including camera enforcement) identified within that area.

A5. Scope Exclusions

WMCA/TfWM will undertake to develop the detailed design proposals through the procurement of their own consultant resources. The construction works are likely to be delivered via the Midland Metro Alliance (MMA),

which is a partnership between WMCA, the design consortium of Egis, Tony Gee and Pell Frischmann, and contractor Colas Rail (supported by their sub-alliance partners Colas Ltd, Barhale, Thomas Vale, and Auctus Management Group). The partnership has been formed through an OJEU-compliant procurement process. However, a different approved contractor may be used where necessary or appropriate.

The purchase of any Bus Lane Enforcement cameras and equipment will be through a City Council contract which is due to be awarded in accordance with a separate procurement strategy.

B. STRATEGIC CASE

This sets out the case for change and the project's fit to the Council Plan objectives

B1. Project Objectives and Outcomes

Existing Situation and Issues

The existing area that the BEE will pass through includes one of the busiest bus interchanges in Europe (along Moor Street Queensway), two existing railway stations (New Street and Moor Street) and a proposed HS2 Curzon Street rail station. There are several new developments expected to move forward in the next few years including Smithfield, Martineau, Beorma site, Connaught Square, Lunar Rise and the Irish Centre plot. Two main city centre car-parks service the Bullring and main shopping centre, and there is still a heavy reliance on private vehicle movements through the area. Better alternative public transport options are needed to improve the overall movement of people to and from the city centre.

Scheme-Specific Objectives

The objectives of the BEE are to:

- Support the regeneration of Digbeth and the east side of Birmingham city centre;
- Provide connectivity to HS2 Curzon station and Digbeth Coach station;
- Form the first part of a further Metro extension to East Birmingham and North Solihull providing connectivity to Heartlands Hospital, Chelmsley Wood, Birmingham Business Park, Birmingham International airport and rail station and HS2 Interchange station;
- Encourage modal shift from private car by delivering a high quality and reliable public transport service;
- Support an integrated transport network through providing seamless interchange; and
- Deliver a high-quality public transport service in a manner that supports local environmental and safety benefits.

City Council Objectives

The BEE is an identified scheme in the Birmingham Connected Transport Strategy.

The scheme supports the policy objectives outlined in the City Council Plan's 2018-2022, as updated in 2019, including:

- *'an entrepreneurial city to learn, work and invest in', particularly 'develop our transport infrastructure, keeping the city moving through walking, cycling and improved public transport'.*
- *'a great, clean and green city to live in', particularly 'improve the environment and tackle air pollution'.*
- *'gain the maximum benefit from hosting the Commonwealth Games' particularly 'deliver high quality ... transport infrastructure for the benefit of our citizens'.*
- *'takes a leading role in tackling climate change'.*

The proposals also support the objectives of Birmingham Development Plan (BDP) 2031 including:

- *'To provide high quality connections throughout the city and with other places including encouraging the increased use of public transport, walking and cycling'.*
- *'To create a more sustainable city that minimises its carbon footprint'.*

The measures will support the aspirations of the Birmingham Connected Transport Strategy, the Health and Wellbeing Strategy and the Draft Birmingham Transport Plan 2031. They will contribute to the vision of a sustainable, low emission, inclusive, integrated public transport system. It will also complement the implementation of a Clean Air Zone (CAZ), by helping the City Council towards achieving compliance with the European Union (EU) annual legal Limit Values for nitrogen dioxide (NO₂) of 40µg/m³. The scheme supports the additional Climate Change Commitments agreed by Cabinet on 30th July 2019 following the motion on Climate Emergency passed at the full City Council meeting of 11th June 2019, including the aspiration for the

City Council to be net zero-carbon by 2030.

Combined Authority Objectives

The measures will support policies within the West Midlands Strategic Transport Plan, in particular:

- Economic Growth and Economic Inclusion: *'To accommodate increased travel demand by ... new sustainable transport capacity' and 'to improve connections to areas of deprivation'.*
- Population Growth and Housing Development: *'To improve connections to new housing ... primarily through sustainable transport connections'.*
- Environment: *'To help tackle climate change by ensuring a large decrease in greenhouse gases from the ... area's transport system'.*
- Public Health: *'To significantly increase the amount of active travel' and 'to assist with the reduction of health inequalities'.*
- Social Well-Being: *'To improve the accessibility of shops, services and other desired destinations for socially-excluded people'.*

B2. Project Deliverables

The BEE will deliver:

- 1.7km of new twin track tramway, of which 1.2km will be catenary free (no overhead wires), utilising battery technology to power the trams instead;
- 'Building to building' refurbishment of the existing footways and carriageways along the tram route corridor;
- Four new Metro stops: Albert Street, New Canal Street (within the new HS2 Curzon Street station), Meriden Street and High Street;
- Seven road traffic junctions crossed at-grade utilising traffic signal systems to provide tram priority where possible;
- Parking and loading restrictions where necessary to prevent tram blocking and improve journey reliability;
- Bus lane enforcement cameras and associated equipment at an estimated eight locations (see Appendix B), subject to a separate procurement process.

B3. Project Benefits

Measure	Impact
Modern, high-capacity low-emission vehicle fleet including easy boarding.	Reducing vehicle emissions will support Clean Air Zone objectives.
Sections of tram/bus only lanes, segregated tram running and parking/loading restrictions.	Ensures that tram route is kept clear at all times, to minimise delays and improve journey reliability.
New tram stops including modern shelters with lighting, ticketing facilities and real-time information.	This will increase the perception of safety, security and convenience, particularly benefiting elderly and disabled people, and parents with pushchairs.
Increased accessibility to public transport for the community.	Improved connectivity with areas of opportunity for employment accessible via the Midland Metro network, and reduced reliance on private vehicles.
Upgraded footways and carriageways within the tram corridor	Improved street scene for the community, encouraging regeneration.

A detailed Benefits Register is attached at G5 below.

B4. Benefits Realisation Plan

The BEE programme will be managed at a senior level by a Project Board consisting of the members

outlined in Section F5.

The Project Board members will meet monthly and will be responsible for project control. They will make decisions within the scope of scheme approvals and make appropriate decision on any minor scope alterations. Any exceptional decisions, including decisions outside of the approved scope, will be escalated to the appropriate level within WMCA and the City Council for consideration.

B5. Stakeholders

A stakeholder analysis is set out at G4 below. A summary of consultation responses is in the covering Executive report.

C. ECONOMIC CASE AND OPTIONS APPRAISAL

This sets out the options that have been considered to determine the best value for money in achieving the Council's priorities

C1. Summary of options reviewed at Outline Business Case

The PDD document, in June 2018, assessed five options for the tram:

- Option 1 - Allow the Metro BEE scheme to proceed based on its original design with centre-running on Digbeth High Street;
- Option 2 - Amend the Metro BEE to southern-running, with enhanced public realm and a single two-way carriageway for general traffic on the northern side, including a 'bus, cycle and hackney carriage only' restriction in one section to remove through traffic;
- Option 3 - As Option 2 but without the 'bus, cycle and taxi only' restriction on Digbeth;
- Option 4 - As Option 2 but reversed, with northern-running trams and a two-way carriageway for traffic on the southern side;
- Option 5 - Southern-running tram (as Option 2) but with general traffic retained on Digbeth and buses re-routed onto Bradford Street as a 'public transport corridor', or a large 'gyratory' system with Bradford Street running in one direction for all vehicles and Digbeth / Deritend running the other way.

This FBC continues to promote **Option 2**, as recommended within the PDD, because:

- Southern-running reduces land and property requirements for BEE, puts the tram closer to potential redevelopment sites to the south and retains servicing and loading access to the small businesses on the northern side.
- It maximises available public realm space on the northern side.
- Traffic levels will be reduced on Digbeth while public transport can be prioritised.

However, if the Digbeth High Street public realm scheme is not taken forward, then WMCA/TfWM would still look to provide the southern alignment tram. However, some amendments to proposals would need to be agreed with the City Council to stay within remaining budgets.

C2. Evaluation of key risks and issues

A scheme-level Risk Register is managed by WMCA, but the key identified risks include:

Risk	Mitigation
Digbeth Public Realm scheme does not receive GBSLEP funding.	The DPR OBC was approved in June 2020 and the City Council will continue to work with the GBSLEP through the development of the scheme. Should approval not be granted, whilst the full planned public realm improvements would not be delivered, WMCA/WMCA/TfWM would still provide a southern alignment tram. Any changes to current proposals, to stay within remaining budgets, will be agreed with the City Council.
WMCA/TfWM do not have sufficient funding for Metro	WMCA/TfWM to seek opportunities to de-scope

works.	or additional funding sources where they exceed their contingency.
WMCA/TfWM cannot find sufficient funding for all additional highway measures or revenue implications.	City Council and WMCA/TfWM jointly review available resources during the development of the measures in order to remain with the available funding or seek to identify additional funding sources.
Works to Digbeth High Street cannot be completed before Commonwealth Games, leaving the area incomplete when visitors arrive.	WMCA/TfWM to monitor external issues which might delay works and agree 'hold /review points' in the programme.
Objections to TROs	City Council to review and look to remove objections.

C3. Other impacts of the preferred option

Describe other significant impacts, both positive and negative

The delivery of Option 2:

- Incurs additional costs in redesigning and constructing the southern-running tram option which it is anticipated will be maintained within the existing budget;
- Will divert general traffic onto other routes, which could increase overall mileage and congestion on parallel roads and make it more difficult to service properties on adjacent side roads. A number of prohibited turns will be needed onto and off adjacent and nearby roads. An increased number of vehicles may need to turn across the tram tracks. Other measures to reduce overall traffic flow in this area (e.g. Moor Street Queensway bus gate) are being developed to promote a modal shift to public transport;
- Makes it impractical to provide segregated facilities for cyclists within the available width where there are tram tracks and a high number of bus movements, without reducing the public realm and pedestrian space. An associated highway measure to provide alternative segregated cycling facilities on Bradford Street is being considered.

D. COMMERCIAL CASE

This considers whether realistic and commercial arrangements for the project can be made

D1. Partnership, joint venture and accountable body working

The scheme is being led and funded by WMCA and will be delivered on WMCA's behalf by TfWM.

The Council will support WMCA by making the necessary Traffic Regulation Order (TRO) changes along this route, as well as retaining its Network Management Duty role, and implementing and operating the bus lane camera enforcement.

The Council have prepared proposals for the Digbeth Public Realm improvements in conjunction with the WMCA/TfWM and are seeking separate approval for an FBC for £15.000m from the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) Enterprise Zone.

The Council, via the Assistant Director, Transport and Connectivity (in consultation with the Leader of the Council and the Cabinet Member for Transport and Environment), will work with WMCA/TfWM to identify any associated highway measures that would complement the BEE delivery. The Council and WMCA/TfWM will explore additional funding sources for measures that cannot be met by the BEE budget.

D2. Procurement implications and Contract Strategy

WMCA will construct the BEE via the Midland Metro Alliance (MMA), which is a partnership between TfWM, the design consortium of Egis, Tony Gee and Pell Frischmann, and contractor Colas Rail (supported by their sub-alliance partners Colas Ltd, Barhale, Thomas Vale, and Auctus Management Group). The partnership has been formed through an OJEU-compliant procurement process. However, a different approved contractor may be used where necessary or appropriate.

The Council will only be responsible for procuring the supply and installation of enforcement cameras and associated back-office infrastructure, using the Council's contract which will be awarded in due course. The procurement process for ANPR cameras was reported to Cabinet in the Planned Procurement Activities Report of 26th November 2019.

Any associated highway measures that cannot be delivered via the MMA will utilise a different approved

contractor where necessary and full details will be included within any resulting business cases, in line with the Council's Governance Framework.

D3. Staffing and TUPE implications

The scheme is being managed by WMCA, and the Council's input will be undertaken using existing internal resources, with support from external consultants (particularly for design checks) when required. There are no staffing and TUPE implications related to the Council.

E. FINANCIAL CASE

This sets out the cost and affordability of the project

E1. Financial implications and funding

Capital Costs & Funding	Previous Years	2020/21	2021/22	2022-2026	Total
	£m	£m	£m	£m	£m
<u>Expenditure</u>					
WMCA Development, Design, Fees and Implementation Costs for BEE (incl. cameras and some associated highway measures*) and new Trams	23.30	18.60	41.70	110.10	193.70
(* Any shortfall would be sourced from other funding options explored by BCC/WMCA)					
BCC - Digbeth High Street public realm (subject to a separate FBC)^	0.00	0.70	14.30	0.00	15.00
WMCA contribution to HS2	0.00	13.90	4.60	0.00	18.50
Scheme Total (Capital)	23.30	33.20	60.60	110.10	227.20
<u>Funding sources</u>					
Department for Transport (to WMCA)	12.40	23.90	41.80	53.60	131.70
WMCA direct funding	5.40	8.60	4.50	0.00	18.50
WMCA - GBSLEP	5.50	0.00	0.00	0.00	5.50
BCC – GBSLEP Enterprise Zone ^	0.00	0.70	14.30	0.00	15.00
WMCA - Prudential borrowing	0.00	0.00	0.00	56.50	56.50
Funding Total (Capital)	23.30	33.20	60.60	110.10	227.20

<u>Revenue Consequences</u>	2022/23	2023/24	Later Years
	£'000	£'000	£'000 (Full Year)
Estimated Highway Asset Maintenance	8.0	15.0	23.0
Infrastructure Works Total	8.0	15.0	23.0
<u>Funded By:</u>			
Commuted Sum (see Section E2)	8.0	15.0	23.0
Totals	8.0	15.0	23.0

1. Budget Summary (continued) – Camera Enforcement

Metro BEE - Operational Sums & Expenditure and use of surplus							
	Estimated Value						
	2022/23	2023/24	2024/25	2025/26	2026/27	2027 - 29	Total
	£000's	£000's	£000's	£000's	£000's	£000's	£000's
Bus Lane Enforcement Operational Income							
Sums (5)	(283.72)	(115.76)	(198.80)	(131.24)	(125.27)	(192.81)	(1,047.60)
Total Operational Sums	(283.72)	(115.76)	(198.80)	(131.24)	(125.27)	(192.81)	(1,047.60)

Bus Lane Enforcement Operational Expenditure							
Operational Costs for 8 cameras (1)(2)(3)(5)	103.72	42.34	72.68	47.98	45.79	70.42	382.92
Maintenance and Servicing: of Cameras (3)	15.45	15.45	36.05	41.20	41.20	81.40	230.75
Camera Licence @ £358 each	1.10	1.10	2.60	3.00	3.00	6.00	16.80
Energy cost associated with cameras	0.24	0.24	0.56	0.56	0.64	1.28	3.52
Total Operational Expenditure	120.51	59.13	111.89	92.74	90.63	159.10	633.99

Net Operational (Surplus)	(163.21)	(56.63)	(86.91)	(38.50)	(34.64)	(33.71)	(413.61)
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Use of Net Operational Surplus							
WMCA purchasing the cameras	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Contribution to camera renewal fund	15.00	15.00	15.00	15.00	15.00	30.00	105.00
Additional Highways Asset Cost (3)	0.50	1.00	1.00	1.50	1.50	3.00	8.50
Camera Decommission cost (3)	0.00	0.00	0.00	0.00	0.00	10.00	10.00
Future Information + Traffic Survey Activities (4)	5.00	0.00	0.00	5.00	0.00	0.00	10.00
Total Use of Net Operating Surplus	20.50	16.00	16.00	21.50	16.50	43.00	133.50

Net (Surplus)/Deficit at Year-End	(142.71)	(40.63)	(70.91)	(17.00)	(18.14)	9.29	(280.11)
(Surplus)/Deficit B/forward	0.00	(142.71)	(183.35)	(254.26)	(271.26)	(289.40)	
(Surplus)/Deficit C/forward	(142.71)	(183.35)	(254.26)	(271.26)	(289.50)	(280.11)	

The Budget Summary, Table 2 above shows the estimated income and expenditure based upon the proposed enforcement regime, which assumes 8 cameras, and experience from Bus Lane Enforcement schemes already in operation within the city.

Notes relating to Table 2 above:

- (1) Staffing levels to be reviewed post-implementation based on actual changes in workload.
- (2) Operational Cost includes assessment & processing of PCN;
- (3) Phased introduction of cameras to suit Metro construction programme (and phased decommission);
- (4) Allow for 2No. surveys and refresh campaigns - (i) 2022/23 and (ii) after BEE opens;
- (5) Camera life assumed to be 7 years before decommissioning.

E2. Evaluation and comment on financial implications

Capital Costs

It is proposed that the delivery of the BEE and Digbeth High Street public realm (DPR) capital works, including the acquisition and installation of enforcement cameras, is to be combined and is the responsibility of WMCA/TfWM. The total combined estimated capital cost is £227.200m, (including development, fees and contingency), £212.200 funded by WMCA/TfWM and £15.000 funded by the City Council.

The funding information reported in Section E1 are taken from WMCA/TfWM's Full Business Case. The proposed funding is made up of contributions from DfT (£131.700m), GBSLEP (£5.500m), WMCA Investment Programme (£18.500m) and Prudential Borrowing (£56.500m), with the City Council contribution for the DPR improvements funded through GBSLEP Enterprise Zone resources (£15.000m).

Since the PDD document, in June 2018, the costs have increased by £90.000m (from £137.200m). This increase is broken down as follows:

Breakdown of Cost Increase (£90.0m)	£m
Outline Business Case	137.20
Additional Digbeth High Street Urban Realm	15.00
Additional HS2 utilities work	18.50
Increase in land cost estimate	11.60
Increase in Tram Costs	4.60
Increase in Construction activities (see adjacent table)	40.30
New FBC Forecast Out-turn	227.20

Breakdown of Construction activities Increase (£40.3m)	£m
Construction Inflation	9.80
Non-Construction Inflation	4.70
Programme/Project Overheads	4.20
Design / Prelims	6.80
Additional Contingency and Risk/HS2 Risk	8.00
Construction Cost as result of:	6.80
<ul style="list-style-type: none"> • Additional scope for Digbeth • Additional drainage requirements • Additional Delta Junction requirement/complexity • Increased demolition costs • Increased Traffic Management • Rates increase since OBC pricing 	
TOTAL Increase in Construction Activities	40.30

The Digbeth Public Realm improvements, that fall within the proposed BEE works, obtained OBC approval from the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) Enterprise Zone on 24th June 2020 and will be the subject of a separate FBC. Should the development of the FBCs identify costs in excess of the estimated £15.000m, options for seeking alternative external funding and/or descopeing the scheme will be pursued in order to contain the costs within the available funding envelope. WMCA/TfWM have noted that in the unlikely event that the DPR scheme does not obtain FBC approval, whilst the same level of planned public realm improvements could not be completed within their available budget an operational southern tram alignment will still be delivered.

The report seeks to delegate approval of any associated highways measures required to the ADT Connectivity (ADTC), in consultation with the Leader of the Council and the CMTE. Where measures cannot be accommodated within the existing BEE budget options for seeking alternative external funding and/or descopeing the scheme will be developed in order to contain the costs within the available funding envelope. Where the costs for any additional highway measures are covered by alternative funding, this report seeks approval for the governance for these schemes to follow the delegated authority principles set out in the Transportation and Highways Capital Programme 2020/21 to 2025/26 Annual Programme Update report,

The estimated cost to the Council for fees and other expenditure is £0.900m. These costs include staff time in contributing to the design, consultation and approval processes; site inspections, time spent in relation to the preparation of legal agreements, and all costs in relation to the temporary and permanent traffic regulation orders. These costs will be reimbursed by WMCA under the terms of the legal agreement, with

quarterly invoices submitted retrospectively by the Council.

As all main Metro works within the limits of deviation are undertaken under the powers granted within the TWAO, with direct authority from the Secretary of State, WMCA/TfWM require no legal agreements with the City Council to work on the Highway. Hence, the works are not subject to a bond.

Where works are required that fall outside of the limits of deviation and are therefore not subject to the powers granted within the TWAO, these will be subject to Section 278 legal agreements. These agreements will not be subject to a bond from WMCA, as they are a public-sector body and the scheme is predominantly public-funded. In the unlikely event of non-performance by WMCA/TfWM then the legal agreement would give the City Council power to step in and complete works. The City Council would have to underwrite the resulting costs initially but would be able to recover these costs from WMCA/TfWM under the terms of the legal agreement.

Revenue Implications

Bus Line Enforcements (BLE)

The City Council will be responsible for ongoing camera enforcement operations, and income will be generated from Penalty Charge Notices (PCNs) issued as part of the enforcement regime. This income will be used in the first instance to cover the operational cost of enforcement. These costs will include employing staff specifically for BLE enforcement, including:

- Employing staff specifically for camera enforcement;
- on-going running costs for the cameras including maintenance, servicing, energy and licences;
- maintenance costs in ensuring that the sites remain compliant with the standards for signing and road markings under the latest version of Traffic Signs Regulations and General Direction (TSRGD), which are required for offence capturing;
- operational costs (processing and administration) of the PCNs;
- replacement of the cameras and associated equipment in future years;
- cost of decommissioning the cameras.

The City Council will manage the cameras as part of the wider enforcement camera network. To ensure that the income is sufficient to fund the costs of enforcement the level of penalty notices issued will be monitored closely and operational resources reviewed/adjusted accordingly.

The table in Section E1 shows a summary of the estimated income and expenditure based upon the proposed enforcement regime, which assumes the maximum of eight cameras, and experience from bus lane enforcement schemes already in operation within the city. This shows that over the first seven years of operation of the cameras, income from PCNs is estimated at £1.048m with operational and other costs estimated at £0.768m, leaving a retained surplus of £0.280m. Any surpluses generated will be used in accordance with applicable regulations, which is in line with the strategy for utilising the sums generated from bus lane enforcement as outlined in the Cabinet Report, Transportation and Highways Capital Programme 2020/21 to 2025/26 – Annual Programme Update, approved on 11 February 2020.

Highways Maintenance Consequences

This project will create assets that will form part of the highway upon completion of the project; as such they will be maintained within the overall highway maintenance programme. The impact to the Council in terms of on-going maintenance liabilities arising from additional highway assets will be assessed during scheme development and opportunities will be sought to control costs through the design and de-accruals. The estimated net cost of including these additional assets within the highway maintenance regime is estimated to be £0.023m per year, including both standard and enhanced assets. The element for tree maintenance within this figure assumes a net gain of 20 trees along the corridor. This should be funded from the provision of a commuted sum payment from WMCA/TfWM. Where associated highway measures are implemented, and in the event that a financial shortfall is experienced in the WMCA/TfWM budget, the City Council may be asked to assist in finding an alternative source of funding for all, or part of, the highway maintenance liabilities. Where resources cannot be identified from any other means this would be funded from the provision for Highways Maintenance held within Corporate Policy Contingency.

As part of the City Council's obligations under the Highway Maintenance and Management Private Finance Initiative (HMMPI) contract, Highways have been formally notified of the proposed changes to the highway inventory arising from this scheme. The works relate to SSD No.4947. Consultation with Birmingham

Highways Limited as PFI service provider is also being carried out to coordinate the proposed works with other programmed activities on the highway network.

E3. Approach to optimism bias and provision of contingency

Construction costs include an assumed 4% inflation rate, as do estimates of other costs. For the purposes of the FBC, benefit and cost data for the scheme is deflated to a common price base and costs have been converted from factor prices to market prices discounted for the 60-year appraisal period. Contingency has been estimated at £15.5m, which is considered appropriate for the current stage of development and level of risk identified.

E4. Taxation

There should be no adverse VAT implications for the City Council in this scheme as the maintenance of highways is a statutory function of the City Council such that any VAT paid to contractors or on the acquisition of land is reclaimable.

F. PROJECT MANAGEMENT CASE

This considers how project delivery plans are robust and realistic

F1. Key Project Milestones

Planned Delivery Dates

Detailed Design period	March 2020 to March 2021
BCC Metro Full Business Case approval	July 2020
Works commence (utilities first).	July/Aug 2020
GBSLEP approval of Digbeth High St public realm FBC	Autumn 2020
Contractor appointed	MMA already appointed
TROs advertised - Varies with phasing of the 5 works Sections.	earliest 2021
Works complete (constructed in 5 different sections)	December 2025
Date of Post Implementation Review - after passenger running	Spring/Summer 2026

F2. Achievability

WMCA are using the already established MMA specialist design team that includes architectural and place designers, traffic modelling expertise, engineering designers and lighting experts to carry out the development and detailed design work on the project. This MMA team is already co-located within Alpha Tower to ensure it provides greater support and a more streamlined approach to design and delivery.

The traffic management changes and TROs needed for the scheme are quite complex, particularly as they also inter-relate with other projects related to the Commonwealth Games (e.g. SPRINT), local developments and HS2. Strategic management is in place to ensure coordinated delivery.

The intention is that WMCA will construct the BEE, and any necessary associated highway measures, via their established contracting arm of the MMA. However, a separate approved contractor could be used where appropriate.

F3. Dependencies on other projects or activities

The Transport and Works Act Order (TWAo) gives WMCA authority to construct all necessary BEE works within the scheme limit of deviation. In order to carry out any works on the highway outside of the limit of deviation, WMCA are required to enter into a legal agreement with the Council. This will take the form of a Section 278 Agreement and is subject to agreement between the two parties.

WMCA will also be responsible for procuring the tram vehicles, along with tram stop shelters, real-time information and off-board ticketing systems. The Bus Lane Enforcement element will depend on the City

Council procuring the equipment and installation through a separate procurement process.

The delivery of the Digbeth High Street public realm improvements will be undertaken as part of Section 5 of the BEE works. The intention is to deliver the public realm works and the adjacent tramway corridor prior to the Commonwealth Games in 2022. However, they are reliant upon separate GBSLEP and City Council FBC approvals including the award of the £15.000m funding required. WMCA/TfWM have noted that in the unlikely event that the DPR scheme does not obtain FBC approval, whilst the same level of planned public realm improvements could not be completed within their available budget an operational southern tram alignment will still be delivered.

The alignment through HS2 is subject to a separate agreement between WMCA and HS2. WMCA have sought assurances from the Department for Transport (DfT) that they will not be responsible for funding any further costs associated with any further delay in the HS2 delivery.

WMCA/TfWM will work collaboratively with all local developments (e.g. Smithfield, Martineau, Beorma, Connaught Square etc.) and the SPRINT project to ensure a coordinated approach to construction at their boundaries.

F4. Officer support

BCC Metro Project Officer:	Nigel Tammo – Transport & Connectivity Tel: 0121 303 7301 Email: nigel.tammo@birmingham.gov.uk
BCC Programme Manager:	Gavin Maciel – Transport Delivery Specialist – Major Projects / Design Tel: 0121 675 4332 Email: gavin.maciel@birmingham.gov.uk
TfWM Metro Finance and Commercial Director:	Nafees Arif – Finance and Commercial Director, Tel: 07554 111862 E-mail: nafees.arif@tfwm.org.uk
BCC Project Accountant:	Andy Price – Finance Manager, Tel: 0121 303 7107 E-mail: andy.r.price@birmingham.gov.uk
BCC Senior Council Officer:	Philip Edwards – Assistant Director, Transport & Connectivity Tel: 0121 303 6467 Email: philip.edwards@birmingham.gov.uk
TfWM Project Sponsor:	Adam Williams – Head of WMM Development Services Tel: 07990 784339 Email: adam.williams@tfwm.org.uk
TfWM Project Manager	Michael Watson Tel: 07734 443967 Email: michael.watson@tfwm.org.uk

F5. Project Management

The project is managed through monthly BEE Project Board meetings with TfWM/West Midlands Metro (WMM), chaired by Philip Edwards (minutes taken by Clerk). The key invitees to the Project Board are:

- Head of West Mids. Metro Development Services (Project Sponsor) – Adam Williams
- TfWM Project Manager – Michael Watson
- BCC Assistant Director Transport & Connectivity (Senior Council Officer) – Philip Edwards
- BCC Metro Project Officer – Nigel Tammo
- TfWM Metro Finance & Commercial Director – Nafees Arif
- West Mids. Metro Projects Director - Michael Anderson
- BCC Head of Major Transport Projects - Stuart Rawlins
- BCC Head of Transport Planning and Network Strategy - Ms Mel Jones
- BCC Development Planning Manager – City Centre Team - Gary Woodward
- BCC Head of Curzon and Enterprise Zone Development - James Betjemann
- WMCA Clerk – Carl Craney

The project is being delivered by WMCA/TfWM, but the City Council are required to technically

review/approve the proposals, as the Highway Authority.

G. SUPPORTING INFORMATION

(Please adapt or replace the formats as appropriate to the project)

G1. Project Plan

See current estimated key dates provided by WMCA below:

Key Milestone	Delivery Date
Detailed design	24 Mar 20 – 8 Mar 2021
WMCA Board approval of FBC	14 Feb 20
GBSLEP approval of Digbeth High St public realm OBC	24 Jun 20
BCC approval of FBC	21 July 20
GBSLEP approval of Digbeth High St public realm FBC	Autumn 2020
Utility works	Jul/Aug 20 – Aug 23
Section 1 construction complete	Jun 21 – Mar 22*
Section 5 construction complete	Apr 21 – Apr 22
Section 2 construction complete	Jan 23 – Dec 23
Section 3 construction complete	Apr 25 – Dec 25
Section 4 construction complete	Aug 23 – Dec 25
Testing and commissioning complete	Spring 2026
Passenger service commences	Spring/Summer 2026

* Line 1 interface at Bull Street /Corporation Street must be completed by September 2021

G2. Summary of Risks and Issues Register

See Appendix F

G3. External funding and other financial details

See Section E2.

G4. Stakeholder Analysis

Stakeholder	Role and Significance	How stakeholder relationships will be managed
WMCA	Scheme promotor/ lead.	Meetings including Project Boards and Programme Board. WMCA will lead on engagement with other stakeholders.
Birmingham City Council	Delivery Partner/ signatory	Attendance at Project Boards and Programme Boards. To assist WMCA in providing necessary agreements to facilitate delivery works on the highway.
Bus Operators (including National Express)		Regular updates through WMCA's Bus Alliance group and ad-hoc meetings.
Transport Delivery Committee (TDC) (WMCA)	Strategic links	City Council councillors in attendance. Quarterly updates during the project – appropriate method including emails, telephone or meetings.

APPENDIX A

MP & Local councillors	Local impact to ensure they are aware of the scheme should they be approached by their constituents	Meeting before Full Council/councillor drop in sessions Monthly updates during the project – appropriate method including emails, telephone or meetings. 1-2-1 Meeting with MPs if required
Other schemes along the BEE tram corridor including HS2, SPRINT, developments (Smithfield, Martineau etc).	Co-ordination of dependant schemes along the tram route, including meetings with other project teams as required.	The Eastside Co-ordination Group meetings have been organised to facilitate this. Sprint is also reported as part of Commonwealth Games activities through the B2022 Capital Board.
Resident groups	To inform them about the scheme, promote the benefits of BEE, obtain views and encourage use	Email with link to newsletters and website (website will have details about the routes, benefits, maps, events, questionnaire) Ongoing depending on groups' requirements
General groups along the corridor e.g. Cycling & walking, bus users or residents' groups	To inform them about the scheme, promote the benefits of Sprint, and get their views	Email with link to website detailing public engagement events
Emergency services	To inform them of our proposals and get their views.	Email/telephone/meetings as required
General public (Including local businesses)	Benefits and timing inform them about the engagement, obtain views, sell the benefits of Sprint and encourage use	Leaflet, email, posters, postcards, letter-drop, Facebook advertising, social media, media releases/interviews, presentations, at-stop interviews, events etc

G5. Benefits Register

For major projects and programmes over £20m, this sets out in more detail the planned benefits. Benefits should be monetised where it is proportionate and possible to do so, to support the calculation of a BCR and NPSV (please adapt this template as appropriate)

Measure	Value	Evaluation period	Impact
<i>List at least one measure associated with each of the outcomes in B1 above</i>			<i>What the estimated impact of the project will be on the measure identified</i>
(a) Monetised benefits:	£m		
Commuter Journey Time Benefits	71	2026 - 2041	Improved reliability and connectivity between existing Metro network, Birmingham New Street and HS2 Curzon Street stations to Eastside and Digbeth
Other Journey Time Benefits	26	2026 - 2041	Improved reliability and connectivity between existing Metro network, Birmingham New Street and HS2 Curzon Street stations to Eastside and Digbeth
Business Journey Time Benefits	133.6	2026 - 2041	Improved reliability and connectivity between existing Metro network, Birmingham New Street and HS2

APPENDIX A

			Curzon Street stations to Eastside and Digbeth
(b) Other quantified benefits:			
Economic Efficiency (commuter users)	22	2026 - 2041	
Economic Efficiency (other)	207	2026 - 2041	
(c) Non-quantified benefits:	n/a		
Reduction in noise and emissions			
Improvement in air quality			
Improvement in accessibility			
Improvement in journey quality			

Other Attachments <i>provide as appropriate</i>	
<ul style="list-style-type: none"> Appendix B – Metro Birmingham Eastside Extension route and potential Tram or Bus Lane Enforcement camera locations Appendix C – Equality Analysis Appendix D – Associated Highway Measures Appendix E – MMA Contribution to Social Value Appendix F – Risk Assessment Appendix G – Typical Tram route cross-section Appendix H – Digbeth Public Realm Improvements Dependency 	