

# OUTLINE BUSINESS CASE

BROADFIELD ROAD IMPROVEMENTS

BUSINESS UNIT – 93376



Project Sponsor	TOM FINNEGAN-SMITH
Lead Client	DAVID WHITLEY
Project Manager	PETER WARD (T&T)
Cabinet Member Consultation	DOUGLAS JOHNSON
Programme Group	TRANSPORT
IBC Budget	£
OBC Budget	£3,673,761 (REVISED MARCH 2022)

Strategic Case

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# 1 Strategic Case

[Summarise clearly why we need the project (what priority does this align to?), what the objectives are, what the benefits are and when it will be delivered. This should be short, concise and relate to the preferred option, use bullet points where appropriate. ]

<p>Why do we need the project / what is the strategic fit?</p>	<ul style="list-style-type: none"> <li>• Anticipated growth of trips to/from the City centre due to new houses and jobs over time, so</li> <li>• Increasing highway capacity on a localised section of the A61 Chesterfield Road corridor – complemented by the Sheaf Valley cycle route which takes active travel users away from this busy intersection</li> <li>• Successful bid to DfT in 2018 for National Productivity Investment Fund (NPIF) based on:             <ul style="list-style-type: none"> <li>○ Reducing existing journey times, journey time reliability and congestion by all traffic modes</li> <li>○ Opening up a development site to accelerate of Business Rates Growth locally, but also:</li> </ul> </li> <li>• Building on previous investment on the corridor – including ‘Better Buses’ to complete a section of Inbound bus lane between Windsor Road and Saxon Road</li> </ul>
<p>What are the objectives?</p>	<p>Introduction of:</p> <ul style="list-style-type: none"> <li>• Additional highway capacity (for all vehicles) between Broadfield Road and Sark Road</li> <li>• Improved junction capacity at Broadfield Road/London Road junction</li> <li>• Improved cycle crossing of Wolseley Road (at Staveley Road) as part of wider Sheaf Valley cycling scheme - which is being developed in parallel, but under a separate business case</li> <li>• Removal of the tidal system on Queens Road – this element is the ‘local contribution’ to the cost of the scheme and occurred in 2019/20</li> <li>• Enabling access to new development site</li> </ul>
<p>What are the expected benefits?</p>	<ul style="list-style-type: none"> <li>• More reliable journey times for all vehicles on a key arterial route</li> <li>• Increasing business and retail development site opportunities in the area</li> <li>• Improved affordability of the maintenance costs of the highway network over the lifetime of the Amey contract</li> </ul>
<p>How will this project contribute towards the delivery of ‘Net Zero by 2030’?</p>	<ul style="list-style-type: none"> <li>• Through contributing directly to the Sheaf Valley cycle route. However,</li> <li>• In order to provide active travel capacity within Sheffield (which includes ensuring through traffic uses more appropriate routes), there will always be a need for minor junction improvements on Sheffield's Strategic Road Network, including the Inner Ring Road and other arterial routes such as Chesterfield Road/London Road</li> </ul>
<p>When will the project be delivered?</p>	<ul style="list-style-type: none"> <li>• Revised OBC – March 2022</li> <li>• FBC – June 2022</li> <li>• Start on site – September 2022</li> <li>• Scheme opening – May 2023</li> </ul>

Project funding:	<p>The total project cost is £3,673,761, with £3,456,000 coming from external sources. All this funding has been received and sits on our balance sheet.</p> <p>The project will be funded as follows:</p> <ul style="list-style-type: none"> <li>• Department for Transport Grant (NPIF) - £3,356,000</li> <li>• Better Buses Area Fund contribution £100,000 – specifically for Wolseley Road active travel crossing point. However, OBC currently shows that only around £78,000 will be needed. A decision on whether to use all the Better Buses (or NPIF) monies will be recorded in the FBC.</li> <li>• Other public funds – although not included in the financial section in the OBC the local contribution to the scheme was through a Streets Ahead Core Works Contribution – costed at £1,485,800 at the time the works completed in 2019/20</li> </ul>
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## 2 Economic Case

### 2.1 A brief summary of the outcome of the options appraisal. [Delete or add columns as required]

	Option 1	Option 2	Option 3	Option 4
<b>Short Description</b> (50 word limit)	(1a) Carriageway widening to allow two inbound lanes along London Road (including over river bridge), one of which is a bus lane north of the river bridge. Two lanes formulated out of Broadfield Road. No change to signal operation	(2b) Carriageway widening to allow two inbound lanes along London Road (including over river bridge), no bus lane (two lanes of traffic instead). Two lanes formulated out of Broadfield Road with left slip (uncontrolled). Changes to signals to remove all red pedestrian phase	(2c) Carriageway widening to allow two inbound lanes along London Road (only one over the river bridge) no bus lane (two lanes of traffic instead). Two lanes formulated out of Broadfield Road with left slip (uncontrolled). Changes to signals to remove all red pedestrian phase	(3a) Carriageway widening to allow two inbound lanes along London Road (including over river bridge), one of which is a bus lane north of the river bridge. Two lanes formulated out of Broadfield Road with left slip (uncontrolled). Left slip lane from London Road South to Broadfield Road. Changes to signals to remove all red pedestrian phase
<b>Benefits / Outcomes / Outputs</b> What is the benefit? How will it be measured? Who is the benefit owner?	Unless stated otherwise: measured in seconds, owned by sponsor, realised by June 2023 <ul style="list-style-type: none"> <li>• Reduced absolute and variability of car journey</li> </ul>	Unless stated otherwise: measured in seconds, owned by sponsor, realised by June 2023 <ul style="list-style-type: none"> <li>• Reduced absolute and variability of car journey</li> </ul>	Unless stated otherwise: measured in seconds, owned by sponsor, realised by June 2023 <ul style="list-style-type: none"> <li>• Reduced absolute and variability of car journey</li> </ul>	Unless stated otherwise: measured in seconds, owned by sponsor, realised by June 2023 <ul style="list-style-type: none"> <li>• Reduced absolute and variability of car journey</li> </ul>

<p>When will it be realised?</p>	<p>times – primarily in the inbound direction, from Albert Road to Duchess Road</p> <ul style="list-style-type: none"> <li>• Reduced absolute and variability of bus journey times – primarily in the inbound direction, from Albert Road to Duchess Road</li> <li>• Opening up a development site to accelerate of Business Rates Growth (measured as an output, owned by stakeholder, realised by February 2023)</li> <li>• Reduce ongoing maintenance costs through the removal of the tidal flow system on Queens Road (measured in £s, owned by HMD, realised already)</li> </ul>	<p>times – primarily in the inbound direction, from Albert Road to Duchess Road (but also Abbeydale Road to Duchess Road)</p> <ul style="list-style-type: none"> <li>• Reduced absolute and variability of bus journey times – primarily in the inbound direction, from Albert Road to Duchess Road</li> <li>• Opening up a development site to accelerate of Business Rates Growth (measured as an output, owned by stakeholder, realised by February 2023)</li> <li>• Reduce ongoing maintenance costs through the removal of the tidal flow system on Queens Road (measured in £s, owned by HMD, realised already)</li> </ul>	<p>times – primarily in the inbound direction, from Albert Road to Duchess Road (but also Abbeydale Road to Duchess Road)</p> <ul style="list-style-type: none"> <li>• Reduced absolute and variability of bus journey times – primarily in the inbound direction, from Albert Road to Duchess Road</li> <li>• Opening up a development site to accelerate of Business Rates Growth (measured as an output, owned by stakeholder, realised by February 2023)</li> <li>• Reduce ongoing maintenance costs through the removal of the tidal flow system on Queens Road (measured in £s, owned by HMD, realised already)</li> </ul>	<p>times – primarily in the inbound direction, from Albert Road to Duchess Road (but also Abbeydale Road to Duchess Road)</p> <ul style="list-style-type: none"> <li>• Reduced absolute and variability of bus journey times – primarily in the inbound direction, from Albert Road to Duchess Road</li> <li>• Opening up a development site to accelerate of Business Rates Growth (measured as an output, owned by stakeholder, realised by February 2023)</li> <li>• Reduce ongoing maintenance costs through the removal of the tidal flow system on Queens Road (measured in £s, owned by HMD, realised already)</li> </ul>
<p><b>Disadvantages</b></p> <p>List negative consequences of each option</p>	<p>Reduced benefits to general traffic on the Broadfield Road to Queens Road movement</p> <p>Using additional lane as a bus lane north of Sheaf has a detrimental effect on all journey times</p> <p>Additional lane over bridge</p>	<p>Using additional lane as a bus lane north of Sheaf has a detrimental effect on all journey times</p> <p>Additional lane over bridge requires new walking/cycling bridge over Sheaf – increasing cost and environmental impact</p> <p>Need to move a single active</p>	<p>Perception that the scheme will provide benefits to all traffic, rather than bus priority and that river bridge will still be seen as a ‘pinchpoint’.</p> <p>Need to move a single active business as a consequence of the acquisition of the additional land required to complete the</p>	<p>Benefits to general traffic on the London Road South to Broadfield Road movement don’t merit the additional cost (including land purchase/business disruption required)</p> <p>Using additional lane as a bus lane north of Sheaf has a detrimental effect on all journey</p>

	<p>requires new walking/cycling bridge over Sheaf – increasing cost and environmental impact</p> <p>Need to move a single active business as a consequence of the acquisition of the additional land required to complete the scheme (this has now happened, along with site clearance)</p> <p>Associated disruption during construction and additional commuted sums</p>	<p>business as a consequence of the acquisition of the additional land required to complete the scheme (this has now happened, along with site clearance)</p> <p>Associated disruption during construction and additional commuted sums</p>	<p>scheme (this has now happened, along with site clearance)</p> <p>Associated disruption during construction and additional commuted sums</p>	<p>times</p> <p>Additional lane over bridge requires new walking/cycling bridge over Sheaf – increasing cost and environmental impact</p> <p>Need to locate or extinguish a single active business as a consequence of the acquisition of the additional land required to complete the scheme (this has now happened, along with site clearance)</p> <p>Associated disruption during construction and additional commuted sums</p>
<p><b>Timescale</b></p> <p>Expected start and completion dates</p>	<p>Detailed design updates will take place between March 2022 and May 2022 with construction currently anticipated to commence in September 2022 with a planned completion date of May 2023</p>	<p>Detailed design updates will take place between March 2022 and May 2022 with construction currently anticipated to commence in September 2022 with a planned completion date of May 2023</p>	<p>Detailed design updates will take place between March 2022 and May 2022 with construction currently anticipated to commence in September 2022 with a planned completion date of May 2023. Dates will be updated in FBC.</p>	<p>Around 18 months should be considered for additional land and business disruption. In addition, additional outline design and approvals would be needed for this option. Four months have been allowed for this.</p> <p>Detailed design updates will take place between January 2024 and March 2024 with construction anticipated to commence in August 2024 with a planned completion date of July 2024</p>
<p><b>Capital Costs</b></p> <p>Total estimated costs and</p>	<p>£2.5m (high level estimate of scheme based on 2018/19 costings included in original</p>	<p>£3.3m (based on 2018/19 costings included in original (approved) SCC OBC)</p>	<p>£3.3m (based on 2021/22 outline design estimates on revised (simpler) scope).</p>	<p>£4.5m (high level estimate of scheme based on 2018/19 costings included in original</p>

supporting assumptions.	(approved) SCC OBC). Cost excluded circa £1.5m local contribution to the scheme	Cost excluded circa £1.5m local contribution to the scheme	Will need stats costs revisiting – which could reduce costs further as this option has a lower impact than Option 2. Updates recently requested from stats and will be included in FBC.  Cost excluded circa £1.5m local contribution to the scheme	(approved) SCC OBC) Cost excluded circa £1.5m local contribution to the scheme
<b>Revenue Costs</b> Any ongoing revenue costs e.g. commuted sums.	Committed sum not calculated on this option	Committed sum initially calculated at £36k, revised to £136k at OBC.	Committed sum initially calculated at £36k, revised to £136k at OBC.	Committed sum not calculated on this option
<b>Major Risks</b> Summary of overall risk rating and likely impact on benefits. Use RAG rating by colouring the cell.	Revisiting of ‘preferred option’ at this stage will have significant reputational risks from key stakeholders	Being able to deliver project scope within budget, especially linked to need for additional walking and cycling bridge over the River Sheaf	Perception that scheme does not benefit public transport over general traffic and no active travel infrastructure provided through main junction	Need for additional land and relocation of businesses

## 2.2 Preferred Option

[What is the scope – outputs, outcomes, benefits. State why this is preferred option in relation to balance of cost, benefit and risk. What are the key risks of this option]

<b>Scope</b>	<ul style="list-style-type: none"> <li>Removal of the tidal system on Queens Road – this element is the ‘local contribution’ to the cost of the scheme</li> <li>Land purchase/swap for the land needed to facilitate the wider highway</li> <li>Compensation for the business losses linked to the need for additional land – including mitigation for business that are retained, but still moving a short way</li> <li>Demolition costs</li> <li>Design and construction – including stats equipment</li> <li>Consultation and modelling</li> <li>Monitoring and evaluation</li> <li>New access to development site, but not drainage within it</li> <li>Contribution to Sheaf Valley cycle route (through Wolseley Road crossing scheme), but not a financial one</li> </ul>
<b>Outputs</b>	<ul style="list-style-type: none"> <li>Additional highway capacity (for all vehicles) between Broadfield Road and Sark Road</li> <li>Improved junction capacity at Broadfield Road/London Road junction</li> </ul>

	<ul style="list-style-type: none"> <li>Improved cycle crossing of Wolseley Road (at Staveley Road) as part of wider Sheaf Valley cycling scheme - which is being developed in parallel, but under a separate business case</li> <li>Removal of the tidal system on Queens Road – this element is the ‘local contribution’ to the cost of the scheme</li> <li>New access to development site</li> </ul>
<b>Outcomes</b>	<ul style="list-style-type: none"> <li>Reduced absolute and variability of car journey times – primarily in the inbound direction, from Albert Road to Duchess Road</li> <li>Reduced absolute and variability of bus journey times – primarily in the inbound direction, from Albert Road to Duchess Road</li> <li>Opening up a development site to accelerate of Business Rates Growth.</li> <li>Reduce ongoing maintenance costs through the removal of the tidal flow system on Queens Road</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>More reliable journey times for all vehicles on a key arterial route</li> <li>Increasing business and retail development site opportunities in the area</li> <li>Improved affordability of the maintenance costs of the highway network over the lifetime of the Amey contract</li> </ul>
<b>Why is this the preferred option?</b> In relation to balance of cost, benefit and risk.	<ul style="list-style-type: none"> <li>Most cost effective based on revised modelling (See Appendix xx)</li> <li>Based on previous work, most deliverable within a reasonable timescale and can use work to date</li> <li>Favoured by current Lead member, with funder and local members (and MPs) briefed too.</li> </ul>
<b>Key Risks</b>	<ul style="list-style-type: none"> <li>Length of delays from early work on the scheme – including funder and member perceptions</li> <li>Affordability of stats within project budget</li> <li>Perception that scheme does not benefit public transport over general traffic</li> <li>No active travel infrastructure provided through main junction</li> </ul>

### 3 Commercial Case

[Complete table with what you need to procure (surveys, professional services, construction contract etc), how you are going to procure it and why this is preferred route (3 quotes, mini comp etc) and the estimated value. Delete or add lines as required]

What is being procured?	Procurement route	Justification for chosen route	Estimated value	Commercial Strategy required?
Utility Diversions	Advance orders	No alternative		N

Project Management	Delivery Partner Framework – T&T	Relevant skills, knowledge and experience	£69,362	N
Cost Manager	In-house CDS	Relevant skills, knowledge and experience	£40,800	N
Design - Amey	PFI – Professional Services Agreement	Relevant skills, knowledge and experience		Y
Construction	PFI – NEC Option C (Target Cost)		£1,600,000	Y

## 4 Financial Case

[Complete table with details of funding source and spend profile. Show income as a negative number. Income and expenditure should balance. Examples of expenditure types are in the table, delete or add rows as required]

### 4.1 Capital Expenditure

Project Costs								
Income Type	2018/19 Actuals	2019/20 Actuals	2020/21 Actuals	2021/22 Actuals	2021/22 Forecast	2022/23 Forecast	2023/24 Forecast	Total
NPIF	- £174,352.24	- £484,556.73	- £408,248.38	- £177,376.12	- £45,250.00	- £1,374,207.33	- £692,009.20	- £3,356,000.00
Better Buses							- £77,755.93	- £77,755.93
LTP			-£239,605.07					-£239,605.07
Totals	- £174,352.24	- £484,556.73	- £647,853.45	- £177,376.12	- £45,250.00	- £1,374,207.33	- £769,765.13	- £3,673,361.00
Expenditure Type	2018/19 Actuals	2019/20 Actuals	2020/21 Actuals	2021/22 Actuals	2021/22 Forecast	2022/23 Forecast	2023/24 Forecast	Total
Amey Design Fees & Amey Surveys	£124,880.82	£41,165.41	£10,456.82	£17,855.18	£18,000.00	£10,000.00	£4,200.00	£226,558.23
Professional Fess 1146 (Including external legal fees)		£369,900.86	£79,296.22	£10,054.92	£1,000.00			£460,252.00
SCC Fees 1192– (Client, TTAPs, CDS, Comms)	£26,074.56	£40,628.59	£28,687.59	£32,545.40	£25,400.00	£98,606.40	£20,000.00	£271,942.54



SCC Fees 1193 – (HMD, Commercial Services, Legal, Ext Funding)	£15,048.12	£26,270.64	£15,237.38	£6,014.54	£850.00	£16,700.93		<b>£80,121.61</b>
Other Consultants fees 1194 (Arup, Asbestos, Freeth) Monitoring	£1,141	£6,591.23	1,914.63	£17,806.08		£10,000.00	£9,004.13	<b>£46,457.07</b>
Land Acquisition costs 1194	£39		£12,127.70					<b>£12,166.70</b>
Stats diversions 1194	£7,168.74		£500,133.11			-£50,000.00		<b>£457,301.85</b>
Main contract - 1177 Demolition				£93,100.00				<b>£93,100.00</b>
Main contract - 1177 Amey						£1,000,000.00	£600,000.00	<b>£1,600,000.00</b>
Monitoring						£20,000.00	£20,000.00	<b>£40,000.00</b>
Contingency						£268,900.00	£116,561.00	<b>£385,461.00</b>
<b>Total</b>	<b>£174,352.24</b>	<b>£484,556.73</b>	<b>£647,853.45</b>	<b>£177,376.12</b>	<b>£45,250.00</b>	<b>£1,374,207.33</b>	<b>£769,765.13</b>	<b>£3,673,361.00</b>

#### 4.2 Revenue Implications

Income / Expenditure	19/20	20/21	21/22	22/23	23/24	Total
Source of increased income (LTP or negatives on record)				-£136,000		-£136,000
<b>Income Total</b>				<b>-£136,000</b>		<b>-£136,000</b>
				£136,000		£136,000
<b>Expenditure Total</b>				<b>£136,000</b>		<b>£136,000</b>

## 5 Management Case

### 5.1 Project Team / Resources

[Complete table with roles and names of the project team. Add or delete rows as required]

Role	Name	Job Title
Project Sponsor	Tom Finnegan-Smith	
Lead Client	David Whitley	
Project Manager	Peter Ward (T&T)	
Lead Designer	Kevin Parkes (Amey)	
Cost Manager	Kevin Derwent (CDS)	

## 5.2 Outline Programme

[Complete table with key milestones for the project. Examples in the table, add or delete rows as required]

Milestone	IBC Date	Actual / OBC Date	Milestone	IBC Date	Actual / OBC Date
Options appraisal			Cabinet approval		
Preferred option selected			Tender start		
Procurement route agreed			Tender evaluation complete		
Outline business case submitted			Final business case submitted		June 2022
Gateway 2 approval			Gateway 3 approval		June 2022
			Start on site		Sept 2022
			Handover		October 2023

