

21 July 2014

A40 – Science Transit Public Transport Scheme**Initial Business Case (Stage 0b Commit to Investigate)**

Project/Programme Name:	A40 Science Transit Public Transport Scheme
Total Capital Budget:	£36.2 million
Divisions Affected:	Wolvercote & Summertown, Eynsham
Purpose of this report:	This report requests approval to enter this project into the capital programme and release a project/programme development budget of £0.5m to proceed to feasibility and preliminary design.
Approval No:	H320

Sign-off & Approval

In preparing this report input must be obtained from the following:

Responsible Owner	Name	Date
Service Manager/ Client / Project Sponsor (Author)	Lisa Michelson	5-6-15
Delivery Team Representative / Project Lead (Contributor)	Jeremy Hollard	9-6-15
Service Finance Business Partner or Senior Financial Adviser (Contributor)	Matthew Barlow	5-6-15
Other Contributors – Developer Funding	Karen Howe	11-6-15
The Capital Finance Team (Contributor)	Kathryn Goldsby-West	11-6-15

Final approval as per the Financial Procedure Rules must be obtained from:

Approval Level Required	Name	Date
£25k and £500k - Director for Environment & Economy and the Chief Finance Officer		
Over £500k - Cabinet / Leader of the Council on behalf of Cabinet	Cabinet	21 July 2015

1. Description & Objectives of the Proposal / Desired Outcomes & Business Benefits

1.1. The proposal is in 3 parts:

- An eastbound bus lane on the A40 from Eynsham Roundabout to a point immediately west of the bridge over the Duke's Cut canal.
- A park and ride car park to be located adjacent to the A40 in the Eynsham area.
- Junction improvements to the junctions of A40 with Elm Place, Cuckoo Lane and Witney Road in Eynsham together with the accesses to the Eynsham Service area and Evenlode public house; in addition contributions from the LGF allocation for this scheme could be made to the A40-A44 Strategic Link Road proposal.

1.2. The purpose of this proposal is to provide a congestion free route into Oxford from the west for public transport. In turn this provision, and associated improvements in public transport service provision, will encourage a transfer of trips from private transport to bus thereby reducing overall congestion levels on the A40 for all vehicles.

1.3. The congestion issue on the A40 has long been accepted as one of the largest traffic issues in the county going back to the 1990s Trunk Road proposals for dualling the road between Oxford and Witney and beyond. The current proposal was included in the Oxfordshire Strategic Economic Plan (March 2014) and as a result of this was accepted into the Oxfordshire Growth Deal as a provisional scheme with a Local growth fund allocation of £35 million and a local contribution of £5 million. In the Growth Deal this provisional allocation was defined as "support ... to expand the integrated public transport system along the knowledge spine, delivering major enhancements to the A40 Strategic Route between Oxford, Northern Gateway and Witney."

1.4. Following the publication of the Growth Deal a consultants' report was commissioned to look at short and long term options for improvements along the A40 corridor. This identified a westbound bus lane from Eynsham to west of the Duke's Cut as being achievable within the provisional allocation. Previous work as part of Connecting Oxfordshire had identified the potential for a park & ride site in the vicinity of Eynsham Roundabout. On-going concern about the junctions onto A40 in the Eynsham area, particularly the traffic signals at Witney Road, indicate that there may be benefits for all traffic if these were re-designed.

Non-Financial Benefits (include intangibles) & Owners	Financial Benefits (include any savings & realisation times) & Owners	Targets / KPIs (Improvement in or contribution to)
Wider economic benefits – the scheme will have agglomeration benefits through supporting enhanced connectivity between		Success criteria for assessing increased connectivity and accessibility will be defined as part of the

Non-Financial Benefits (include intangibles) & Owners	Financial Benefits (include any savings & realisation times) & Owners	Targets / KPIs (Improvement in or contribution to)
Witney/Carterton and the Oxfordshire Knowledge Spine which will increase the labour pool available and support more efficient economic activity.		scheme development process.
Direct transport benefits – reduced travel time and journey variability, increased travel choice, reduced congestion	The scheme should deliver substantial travel time savings for existing public transport users but also for current car users who switch to public transport and to remaining road users from reduced vehicle numbers.	Success criteria for reduced congestion (journey times, queue lengths) and modal transfer will be defined as part of the scheme development process.
Environmental benefits - including reduced carbon emissions, improved local air quality and reduce traffic and road noise attributable to modal switch to public transport and consequent reduced car numbers.	Public transport operators would be expected to see substantial increase in revenue through increased patronage. They would be expected to invest significantly in high specification vehicles in line with the Science Transit strategy and increased service levels to capitalise on this.	Impact on the local economy will be monitored by the LEP through the Growth Deal monitoring process.

1.5. The scheme is linked to a number of other proposals along the A40 corridor and will play a major role in the acceptability and viability of development in the corridor, particularly in Carterton, Witney and Oxford Northern Gateway. This includes:

- Green Road Roundabout bus priority measures (completed March 2015)
- Downs Road and Shore's Green junctions, Witney
- A40-A44 Strategic Link Road
- Northern Gateway Access Road and associated bus priority improvements along the A40 corridor between Wolvercote viaduct and Wolvercote roundabout.
- Wolvercote and Cutteslowe roundabouts
- Access to Headington improvements.

2. Results of Option Appraisal and Project/Programme Scope

URS were contracted to:

- Review the 1990s Mott MacDonald report on re-opening the Witney-Oxford railway
- Look at options for long term public transport strategy for Witney-Oxford corridor including consideration of bus, guided bus, light rail and heavy rail
- Develop recommendation(s) for short term option(s) for the LGF scheme which would not preclude longer term aspirations

2.2. The report concluded that a re-instatement of the railway line would be feasible, albeit with deviations from the previous route to avoid developments which have occurred since the line's closure. If a rail option was pursued then an alternate line which avoids this recent development might also be possible. There are questions about the viability of the line given the limited service that could be run.

2.3. A light rail option may provide a way to give a better service at a similar or slightly lower cost, but this would require Network Rail acceptance of a mixing of light and heavy rail on the route between Oxford and Yarnton junction – for which there is no current precedent in UK (although this is common in Europe). A guided busway which partly used the old rail alignment and partly ran alongside the A40 was also investigated.

2.4. However, both the heavy and light rail options would cost substantially more than the LGF allocation and would be unlikely to be achievable within the timescale for LGF funding.

2.5. Bus lanes along the A40 are generally feasible. The major obstacle would be crossing the two canals and Cotswold Line railway although there are other identified points where it may not be possible to construct within current highway boundaries.

2.6. A scheme which delivered an eastbound bus lane between Eynsham Roundabout and a point immediately to the west of the canals and railway would be deliverable within the funding available which may also be sufficient to deliver some westbound bus lanes on the approaches to Eynsham Roundabout and Cassington traffic lights.

2.7. On the basis of the URS study the recommended strategy for LGF funding (including required local contribution) is to have:

- An eastbound bus lane between Eynsham Roundabout and the Duke's Cut, Wolvercote;
- Westbound bus priority on the approaches to Cassington traffic signals and Eynsham Roundabout;

- A 500 space Park and Ride car park adjacent to the A40 in Eynsham (with the potential to expand to 1,000 spaces in line with the Oxford Transport Strategy proposals);
- Junction improvements on the A40 between Witney Bypass and Eynsham Roundabout, including bus priority on approaches to Swinford Toll Bridge.

3. Estimated Cost & Proposed Funding Plan

3.1. Provisional cost estimates are as follows:

£ millions	initial cost estimate	Contingencies	optimism bias	TOTAL
Bus Lane	18.7	3.4	6.9	29.0
Park & Ride	5.0	0.5	0.5	6.0
Junction improvements	2.5	0.25	0.25	3.0
TOTAL	26.2	4.15	7.65	38.0

3.2. Although this report is based on an initial cost estimate of £38m, this figure includes a large element of optimism bias allowance. Our intention is that through the design process and using value engineering processes the cost of the proposed works can be reduced to £36.2m. If this reduction cannot be found then the extent of the works to be delivered will need to be reviewed.

3.3. There is still a good deal of uncertainty about the challenges that would be met in delivering the bus lane project hence the high level of contingencies and optimism bias which has been include in the bus lane estimate. The appropriate size for the Park and Ride car park would need to be assessed using demand modelling; it may be that a smaller site might be more appropriate as an initial development.

3.4. The junction improvements element of the project is not fully scoped to date and the ambition in terms of the number of junctions to be dealt with may need to be revised in order to remain within the budget available.

3.5. The funding for this scheme is mostly to come from the Government's Local Growth Fund. In July 2014 the scheme was awarded a provisional allocation of £35 million dependent upon:

- the submission of an acceptable Business Case being submitted to the Department for Transport (this being based upon the 5-case Business Case model approved by HM Treasury and the WebTAG procedures for major transport scheme appraisal); and
- a minimum of £5 million matching local contribution.

3.6. The scheme will be a “retained” major scheme meaning that the final decision for releasing the funding will be that of the Department for Transport rather than the County Council, Growth Board or LEP.

3.7. Initial work on developing options for the Science Transit scheme and the long term strategy has been through the E&E revenue budget. This funding will continue the commencement of design work following public consultation. There is a need for the County Council to fund the capital costs of initial design and appraisal of the scheme up to the point that the DfT decision is made and LGF funds become available. This funding can be provided from held developer funds constituting the match funding element of the overall budget.

3.9. The £36.2m total budget for the scheme will comprise the following:

Local Growth Fund Grant	£35 m
Developer Contributions (held) ¹	£1.2 m

¹ W100 (£0.944M), ES15 (£0.257M)

3.8. The £1.2m of held developer funding will be supplemented by £1.8m of complementary developer funded works (Witney Downs Road £1.25m and access to Headington £0.55m) and the purchase of vehicles by the bus operators to run an improved service along the route, estimated to be worth a minimum of £2m, to give the total £5m of required local match funding.

3.9. Summary of capital budget requirement:

	£000
A: Estimated cost of feasibility and preliminary design requested to be released	500
B: Estimated cost of detailed design, procurement & enabling works (to be requested to be released at stage 1)	2,700
C: Estimated delivery / construction cost (to be requested to be committed at stage 2 ¹)	23,000
D: Contingency (inc. optimism bias and inflation)	10,000
Total	36,200

3.10. The estimated annual expenditure profile for the project is as follows:

Year	2015/16	2016/17	2017/18	2018/19	later	Contingency

¹ Subject to a successful submission to DfT for release of funding

£000	150	350	1,250	6,120	18,330	10,000
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Revenue Implications

- 3.11. Revenue implications of this scheme will be determined in detail through the preliminary design and will be incorporated into the stage 1 business case.
- 3.12. The construction of the bus lane will increase the overall highway asset and maintenance liability. However this increase is unlikely to lead to any significant change in the periodic maintenance requirement.
- 3.13. It would be expected that the Park & Ride site would charge for parking, and that the revenues so obtained would be sufficient to at least cover the on-going operational costs of the car park, and potentially to contribute a surplus which could offset any future maintenance need on the site. Detailed estimates will be provided in future business cases.
- 3.14. It is to be expected that the bus services both using the Park & Ride and the bus lane would operate on a commercial basis without the need for subsidy. This is the case with the current services operating along the A40 corridor.

4. Project Delivery Timetable & Procurement Plan

Activity	Start Date	Finish Date	Milestone/decision point & scheduled technical gateways
Feasibility & Preliminary Design	01/10/15	31/06/16	Approval of stage 1 BC
Land Acquisition	01/09/16	30/09/17	
Detailed Design	01/09/16	30/09/17	Gateway 3
WebTAG assessment	01/09/16	31/08/17	DfT Business Case
Planning Application	01/10/17	30/04/17	If required
DfT Funding Approval	01/09/17	31/12/17	
Procurement	01/01/18	30/03/18	Approval of stage 2 BC
Construction	01/09/18	31/09/20	

5. Risks, Constraints, Dependencies and Exclusions

Delivery Risk

- 5.1. At the current time the major risk with the scheme is that the county council is required to commit its own resources to the scheme with no guarantee that funding will be forthcoming either to reimburse us for forward funded work nor to allow the scheme to be taken forward. This risk principally comes from two sources:
- i. The scheme, when preliminary design is completed, does not meet the government criteria for continued support.
 - ii. The current funding stream, Local Growth Fund, is closed and the scheme is not transferred to any fund, if any is created.
- 5.2. If the scheme is not able to proceed, any project development costs incurred will become a revenue expense.
- 5.3. As well as the financial risk that this could pose there would be a reputational risk to the council from the failure to deliver a long desired and needed proposal.
- 5.4. The principal mitigation against this is to be continually aware both of the development of the scheme in terms of business case development (using the Treasury 5-case business case model) and the wider environment for local major schemes. If any risk of this nature looks like being realised then there will be a need to develop contingency plans to reduce the county council's exposure or find alternative means to continue progressing the scheme.

Quantified Risk Assessment

- 5.5. A Quantified Risk Assessment will be carried out on the scheme and the final budget for the scheme will include the sum of a 15% Optimism Bias and the P50 value provided by the QRA.

General Risk Management Methodology

- 5.6. To reduce the chance of risks maturing and therefore potential cost over-run, a robust framework will be implemented:
- On-going Value Engineering to eliminate scope creep and ensure that costs contribute to the achievement of tangible benefits
 - Robust risk management, identifying risks and risk owners to ensure that mitigation measures are fully and robustly developed and implemented from the start
 - Early engagement of our term consultants in the development of the scheme design with thorough and robust investigations to eliminate unknowns
 - Implementing a robust procurement strategy with a sensible balance of risk to ensure confidence in the out-turn price without incurring excessive contractor's risk allowances.
- 5.7. The key areas of risk are as follows:

Description of areas or sources of risk and impact on project	Mitigation	Owner
Unexpected utility diversion works	A C3 (Budget Estimate) request under the NRSWA will be submitted to the utility companies as early as possible in the design process with the earliest possible engagement with affected parties undertaken.	Design and delivery team leader
Unexpected complexity in design of road or other aspects of design leading to additional construction costs	An engagement strategy will be prepared to allow input to be sought from specialist contractors in planning the scheme to better understand the critical activities and therefore increase cost certainty.	Design and delivery team leader
Unforeseen environmental and archaeological mitigation measures required	An environmental constraints study will be undertaken for the scheme early in the design process. No significant issues have so far been identified.	Design and delivery team leader
Scheme changes required or protest action	An engagement strategy will be developed to communicate proposals to the public with consideration given to feedback received.	Project Sponsor
Changes to fiscal constraints (e.g. landfill tax and disposal costs) or to design standards.	Allowance to be made in final cost and delivery programmes to allow for change	Design and delivery team leader
Severe adverse weather leading to construction delays	Allowance to be made in final cost and delivery programmes to allow for change	Design and delivery team leader

6. Communication & Consultation

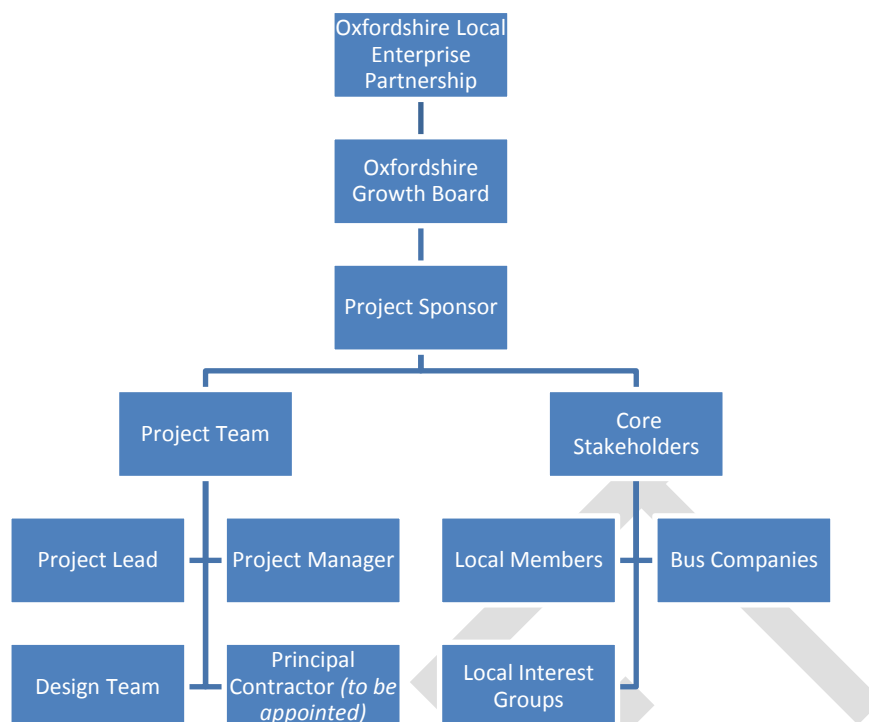
6.1. Part of stakeholder management will be achieved through ensuring an effective communication system which will:

- Establish a co-ordinated approach and formal communication channel and procedure for contacting external partnership bodies, to ensure a record of all correspondence and effective communication throughout the project period.
- Keep local councillors and Cabinet Members informed on project progress.

- Inform those Oxfordshire County Council officers who are directly involved in the project, as well as provide an opportunity for others across the council to be kept up-to-date on the progress of the project throughout the programme period.
 - Keep key stakeholders and external partnership bodies informed on project progress.
 - Inform the general public on the progress of the project and the achievement of key milestones.
 - Establish a reporting mechanism/template, using DfT guidance (when available) to communicate the progress, expenditure and monitoring of the project to the DfT on an annual basis.
 - Enhance public awareness of the scheme being delivered.
 - Create a project brand to be used consistently on all communication material to enhance awareness and recognition of the project.
- 6.2. A detailed communications plan will be developed as the scheme progresses, which will include full stakeholder analysis.

7. Programme/ Project Governance

- 7.1. This project will be run in accordance with the principles of PRINCE2 tailored to meet the corporate governance and decision making processes of Oxfordshire County Council. The governance of the scheme will be managed by Oxfordshire County Council's Capital and Asset Management Board (CAPB).
- 7.2. The management and quality control of the scheme comes through a system of 6 Gateway checks on the continued design of the scheme (project initiation, feasibility, preliminary design, final design, procurement and construction) and a 4-stage approval process for the developing business case for the scheme (Concept Development/Commit to Investigate, Project Development/Commit to Invest, Project Delivery/Commit to Spend, and Project Closure/Client Acceptance).
- 7.3. The final control for approval of the scheme has been "retained" by the Department for Transport. This requires that the scheme produces a full WebTAG compliant 5-stage business case before funding for construction is released.
- 7.4. A design team has been identified with resources made available as programmed. The main critical path relates to the structure design and the associated Highways Agency approval process. The outline delivery structure is proposed as follows:



7.5. The project team will comprise of:

Senior Responsible Owner (SRO): Service Manager - Localities, Policy & Programmes (Llewelyn Morgan)

Project Sponsor: Lisa Michelson

Project Manager: Friederike Vetter

Project Assurance: Will be managed by the County Council's Commercial Team

Design and delivery team leader: The technical support will be provided through Oxfordshire County Council's appointed designer

Senior Supplier (Construction): The Senior Supplier for construction will be appointed in a formal tendering process

8. Supporting Documents

8.1. Appendix A - A40 Witney to Oxford Corridor Engineering Feasibility Study (URS, March 2015) [..\URS\BDRP0002 A40 Corridor Review FINAL with Appendices.pdf](#)