

## Outline Business Case (Stage 1 Commit to Invest)

<b>Project/Programme Name:</b>	Harwell Oxford Entrance (A4185/Thomson Avenue Roundabout)
<b>Total Capital Budget:</b>	Project development budget £0.272m (Total cost estimated at £2.0m)
<b>Divisions Affected:</b>	Harwell
<b>Purpose of this report:</b>	This report requests approval [of an increase in the total budget of £0.162m and] to release the budget above to proceed to detailed design and procurement of this project.
<b>Approval No:</b>	H312

### Sign-off & Approval

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

Responsible Owner	Name	Date
Service Manager/ Client / Project Sponsor (Contributor)	Harry Davis (S&I)	22/06/2015
	Marie Kanayan (MID)	24.06.2015
<b>Delivery Team Representative / Project Lead (Author)</b>	Nigel Day	23/06/2015
Service Finance Business Partner or Senior Financial Adviser (Contributor)	Rob Finlayson/ Matt Barlow	
The Capital Finance Team (Contributor)	Bill Evershed	
Other Contributors as applicable (e.g. developer funding, asset strategy)		

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

Approval Level Required	Name	Date
No cost increase or cost increase under £500k - Director for E&E and Chief Finance Officer		
Cost increase over £500k or fundamental change in scope – Cabinet or Leader of the Council of Behalf of Cabinet		

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

Harwell Oxford Campus is a strategically important part of the Enterprise Zone and Science Vale; access improvements to this site attracted City Deal funding from DfT. The site is subject to continuing, ambitious development and the access improvements shall be required to complement these developments. From completion of the whole scheme, the local community will benefit from improved job opportunities and reduced congestion.

Early assessments of the traffic and forecasts for growth on the network have indicated that access will need to be improved to provide the additional capacity that is forecast. Feasibility study and preliminary design have resulted in a 30m inscribed circle diameter roundabout which contains a new segregated cycle bypass on the eastern side, upgraded pedestrian crossings at all arms of the improved junction, and an improved bus stop westbound. This design caters for all road users, and is modelled to facilitate the increase in movements at this junction arising from the predicted growth.

The proposed roundabout is within an enterprise zone and will contribute to delivering growth in the area, allowing Harwell Oxford campus to increase by 5,000 jobs. It satisfies proposal Science Vale 1 in Local Transport Plan 3 (LTP3) which plans to deliver Harwell Oxford entrance improvements by increasing capacity.

Not investing in this proposal would lead to increased congestion at this junction, which may inhibit the full economic realisation of the Harwell Oxford Campus development. There would be reduced interconnectivity between the Science Vale area and the rest of the country which may decrease the economic benefits of the development, and decrease the quality of life of the local community.

## **2 Results of feasibility study and Updated Project/Programme Scope**

*[This section sets out the scope of the project following the feasibility study and any preliminary design work.*

*You can copy over a description of the preferred option from the Stage 0b initial business case and **update**:*

- Has there been any change to the scope of the project following the feasibility and preliminary design works?*
- Why have these changes been made?*
- How do these changes impact on how the project achieves the expected outcomes and business benefits?*
- How do these changes affect the value for money of the project?*
- What other options are available besides making these changes and why were these rejected? In particular in relation to changes increasing the cost of the project.*
- Are there any areas of the project scope that are uncertain or still need to be determined? If so what are the options that are being considered?*

- *Following the feasibility study, are there any new inputs that need to be considered in relation to delivering the project, e.g. Equalities Impact Assessment, ICT, Legal, Highways etc.*

*For programmes of works it is required that a list schemes to be delivered is provided at this stage including location, brief description and estimated cost of works. For large programmes this should be attached in the supporting documents sections of this report. Additions or significant changes to this scheme list will require approval at stage 2 full business case or via an out of tolerance report.]*

Varying junction design concepts were considered at different locations parallel to Harwell Oxford Campus on the A4185 before the preferred improvement was selected at Thomson Avenue, which aligns with separate developments within the Harwell Oxford Campus. Outline assessments of roundabout junctions with varying inscribed circle diameters (ICD) were undertaken prior to the concept of a 30-metre ICD roundabout junction being examined at this junction. The proposed roundabout at Thomson Avenue is predicted to operate with maximum 88% of capacity, accommodating 3,000 jobs. To the south of Thomson Avenue, a further 1,000 jobs can be accommodated via Fermi Avenue without any additional improvements. Although this does not deliver the capacity for the desired 5,000 jobs, it is recognised that as development expands through the centre and north of the Campus further highway improvements will be necessary. This delivers the expected outcomes and business benefits by supporting the increased traffic growth arising from the next phase of development at the Harwell Oxford site.

Following the initial feasibility and preliminary design works a change has been instructed to revise the scope of the project; the scheme now requires land take to the east of Newbury Road whereas this was originally defined as a constraint to mitigate the time that may be required to acquire land. When investigating this option it has been found that the diversion required to accommodate existing Openreach apparatus to the west of Newbury Road could be avoided if the roundabout is located further to the east. The cost of land acquisition has been estimated using an assumed cost of land and associated legal fees taken from a recent land purchase from the same land owner in the same area. The cost of land acquisition is likely to be significantly lower than the cost of the diversion of apparatus. OCC's land agent is about to enter discussions with (??) land owner and authority to undertake a CPO process to run in parallel is being separately sought. Reducing the size of the roundabout in order to negate the need for land purchase or utilities diversions is not an option as a smaller roundabout would not provide sufficient capacity for the projected growth. In addition to the improved value for money the current approach is expected to provide, constructing the roundabout further to the east will result in fewer departures from standards which will increase its resilience and help to optimise its capacity.

### **3 Estimated Cost & Proposed Funding Plan**

*You should explain how the estimated costs and funding plan have changed since the previous report and how any increase in budget requirement is proposed to be met or what will happen to any budget surplus.*

*The updated cost model to support the cost estimate should be included in the supporting documents section of the report.*

*You should explain what the assessed level of required contingency is based on (refer to costed risk register if available).*

*For major, complex projects and detailed resource appraisal template should also now be completed and included in the supporting documents section of the report.*

*If there is any external funding, it is expected that grant determination letters will have been received or funding agreements put in place by this stage. Copies of these should be included in the supporting documents section of this report.*

*Please complete the following tables]*

Summary of capital budget requirement:

	Stage 0b £000s	Stage 1 £000s
A: Cost of feasibility and preliminary design (previously released at stage 0b)	100	157
<b>B: Estimated cost of detailed design, procurement &amp; enabling works (requested to be released at stage 1)</b>	226	<b>115</b>
C: Estimated delivery/ construction cost (to be requested to be committed at stage 2)	1,328	1,443
D: Contingency	346	285
Total	2,000	2,000

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

Year	Previous Years	2014/15	2015/16	2016/17	Contingency
£000s	0	109	809	797	285

#### **4 Project Delivery Timetable & Procurement Plan**

Activity	Start Date	Finish Date	Milestone/decision point & scheduled technical gateways
Feasibility & Preliminary Design	21/01/2015	20/08/2015	Approval of stage 1 BC
Detailed Design	21/08/2015	02/10/2015	

Consultation	29/06/2015	24/07/2015	e-consultation
Planning Application			N/A
Enabling Works	05/10/2015	14/01/2016	Diversion of utilities
Procurement	05/10/2015	14/01/2016	Approval of stage 2 BC
Construction	15/01/2016	15/11/2016	Gateways 4 and 5

## **5 Risks, Constraints, Dependencies and Exclusions**

The key risks for the project are as follows:

Description of areas or sources of risk and impact on project	Mitigation	Owner
Cost of Statutory Undertakers' diversions prohibits scheme delivery	Obtain detail of stats locations and liaise with statutory undertakers	Project Leader
Availability of land required to construct scheme	Liaison with land owners early. Run CPO in parallel to mitigate delay if negotiations fail	Project Leader
Network resilience; substantial development on-going in parallel in the same area	Liaise with other project managers and network co-ordinators and ensure communication with public and stake-holders is undertaken in good time.	All
Change of scope arising from site constraints	Advanced investigation to inform scope of work as far as is practicable	Project Leader

To-date, many factors are still unknown as the design is being progressed, and the land negotiations taking place. Value engineering exercise will be undertaken prior the submission of stage 2 business case. This assessment should then contribute to a significant reduction of the currently identified contingency and a more accurate cost estimate for the construction.

See appendix G for detailed costed risk register which includes a very high level of contingency.

## **6 Communication & Consultation**

*[This section outlines the consultation carried out so far in the development of the proposal and the overarching communication requirements for its successful delivery.]*

*You can copy over and update this section from the stage 0b initial business case.*

*For major projects it is expected that a communication plan should have been developed by this stage and this should be attached within the appendices.]*

Harwell Oxford, OCC Infrastructure Development, Skanska and Atkins support this initiative as it is in line with the planned growth for the area.

A communication plan will be prepared in conjunction with the delivery team and developed as part of the Early Contractor's Involvement to advise key stakeholders and the wider road users. This will be established in complement of other plans established for the projects progressing simultaneously on the network e.g. schemes on the A34.

This communication plan, including a dedicated webpage on OCC's website, will be available as soon as the construction programme is confirmed. Updates could then be issued regularly.

A public liaison officer will manage the communication related to the progress of the works with the stakeholders in close partnership with Oxfordshire major schemes communications team.

The Project Leader will be the point of contact between the project team (external) and the Project Sponsor's team.

The deliverable will be prepared in an external office where the local quality controls will be adopted. Interim and draft copies of reports, drawings or technical notes/memos must be subject to checking prior to issue in accordance with local practices.

Final versions of documents will be issued following a check and approval process which will be indicated through signed copies of the documents being produced. Revisions to issued documents will be subject to similar checking and review.

The key stakeholder will be Harwell Oxford and the proposals should consider the development aspirations and programme of this organisation to minimise negative impact on the site during construction.

This scheme falls within part of OCC's City Deal remit so officers responsible for the development of other schemes in the portfolio should be kept aware of progress.

Other stakeholders will include the parish council, OCC local members, the district council and the North Wessex Downs AONB board.

All stakeholders will soon be informed of an online consultation to be held in July 2015. This will outline the reasoning to deliver the scheme, show the features of the scheme, and highlight other schemes to be completed in the area. General

comments on all aspects of the scheme will be invited, and this feedback taken into consideration.

## **7 Programme/ Project Governance**

*[This section outlines the governance arrangement for the proposed project/ programme.*

*You can copy over and **update** this section from the stage 0b initial business case.]*

The Project Sponsor role is changed to Harry Davis from Melissa Goodacre. This is anticipated to pass to the Commercial Project Sponsor (Major Projects) at a mutually agreeable time, typically around GW2 envisaged in August 2015. It is anticipated that the Major Projects team shall be involved at an early stage to facilitate an earlier transfer if there are associated benefits. Paul Fermer will authorise changes to the budget.

The Project Leader role is held by Nigel Day, accountable for the management of project delivery and external providers to Skanska, in addition to monthly SAP forecast updates. The project will be governed by holding regular officer and challenge meetings to ensure it does not deviate from the plans.

A Principal Contractor will be appointed at a later stage to assist with the smooth transition from design to construction by providing Early Contractor's Involvement (ECI) and to support a value engineered delivery.

## **8 Supporting Documents**

*Attach as available/appropriate*

### **Appendix A - Feasibility Report**



S-001011 Harwell  
Oxford - Technical NC



Harwell\_Campus\_Tec  
Technical Note 29.04.14.

**Appendix B - Detailed scheme list** *(required at this stage for programmes of works)*

**Appendix C - Service & Equalities Impact Assessment**

**Appendix D - The Updated Cost Model**

**Appendix E - Resource Appraisal** *(for major/complex projects)*

**Appendix F - External Funding Confirmations** *(required at this stage - copies of grant determination letters and funding agreements)*

**Appendix G - Project Risk Register** *(required at this stage - costed if available)*

**Appendix H - Communication Plan** *(required at this stage)*

**Appendix I - Project Governance Framework**