Committee: Cabinet

Date: 24th February 2020

Wards: Ravensbury

Subject: Bishopsford Road Bridge – preferred options for reopening the bridge

Lead officer: Director of Environment and Regeneration, Chris Lee

Lead member: Cabinet Member for Regeneration, Housing and Transport, Councillor Martin Whelton

Contact officer: Deputy FutureMerton Manager, Tara Butler

Recommendations:

A. That Cabinet continues to recognise the urgency and importance of reopening Bishopsford Road Bridge and reaffirms its commitment to holding special meetings where necessary.

B. That Cabinet selects the demolition of the existing structure and the erection of a new bridge [options 5 or 6] as the preferred option from a number of options explored to reopen the bridge.

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1 PURPOSE OF REPORT AND EXECUTIVE SUMMARY

1.1. This report sets out the options the council has explored to reopen the Bishopsford Road Bridge and recommends a preferred option to Cabinet.

1.2. Reopening the bridge to all vehicles is a high priority for the council. Cabinet members have already committed to prioritising works to reopen the bridge and have offered to undertake measures to speed up decision-making such as hold special meetings where necessary.

1.3. Six different options have been explored to reopen the bridge: options 1 to 4 are mainly based around repair and options 5 and 6 provide for a new bridge.

1.4. The primary aim has been to reopen the road as quickly and as safely as possible, ensure both the river and the structure are restored to the state they would have been in if the incident hadn't happened in June 2019 while ensuring that the project can minimise or mitigate risks.

1.5. The report recommends the demolition of the existing structure and the construction to the new bridge as the preferred option to reopen the bridge. This will be either a two span structure (option 5) or a single span structure (option 6).

2 DETAILS

2.1. The council had been carrying out deck strengthening of Bishopsford Road Bridge as part of the annual highways maintenance programme. Works started on 23rd April 2019 which were due to finish by the end of July 2019

2.2. On the evening of Monday 10th June 2019 following a weekend of heavy rain the river Wandle flooded at various points including three houses downstream from Bishopsford Bridge.

2.3. The council and its main structures contractor, FM Conway, worked on stabilising the bridge during the week 10th-14th June. Council staff also arranged sandbags and other support for the residents in the flooded houses

2.4. Four days later on the evening of Friday 14th June 2019 the northern arch of the bridged partially collapsed, breaking the utilities services (gas, water, electricity and broadband) that are routed through the bridge structure. The central arch suffered minor structural damage and the southern arch has no visible defects.

2.5. Details of the civil contingencies plan enacted from 14th – 17th June 2019, the subsequent stabilisation works to the structure and the mitigation measures enacted in the nearby park and surrounding area are set out in the Bishopsford Bridge update to Sustainable Communities Overview and Scrutiny Panel October 2019.

Options for reopening the bridge

2.6. Officers have been working with a multidisciplinary engineering company, WSP and the highways term contractor FM Conway to develop different options to reopen the bridge.

2.7. The options have been based on

- Restoring the structure and the road to the state it would have been in, had the strengthening works been completed as planned and had the incident not occurred in June 2019.
- Reopening the bridge to traffic and pedestrians as quickly as possible while managing or mitigating risks to avoid any further incidents, either during construction or with the new structure.
- Restoring river flow as promptly possible as required by the Water Resources Act, again minimising or mitigating risks in undertaking this.

2.8. A wide variety of other matters have also been considered: impact on the amenity of local residents and businesses, utilities, ecology and other environmental issues, heritage, how the new bridge would look, costs, durability, serviceability and risks

2.9. There are some key issues associated with the reconstruction of the bridge under all options.

2.10. **All options involve demolition**. The northern arch is significantly damaged. All options involve its demolition, including the material above it such as the concrete laid on the bridge during the strengthening works, the walls and piers above the northern arch etc. The central arch is also damaged and the southern arch has no obvious damage. Hidden defects are unknown.

2.11. **Utilities** There are gas, electrical, water and broadband services running through the structure. The existence of these services in the structure make all options complex to deliver and will require demolition by hand around the service pipes, both to prevent damaging the services and to prevent harm to the construction workers on site. Engineers continue to work with all the utilities companies; it is likely that some utilities will have to be diverted in all options.

2.12. **Flood risk management.** Although stabilisation works have been carried out to the broken northern arch, the river is still prevented from flowing through it by a cofferdam in case river flow exacerbates the existing damage and the structure collapses further. A further collapse, particularly if it blocked a flowing river, could be devastating for local flood risk. Any option has to restore the river flow as swiftly as possible while using techniques that will minimise as far as is possible any chance of masonry collapsing into the river.

2.13. Restoration of the river flow and reducing risk is a high priority for the Environment Agency and the council is required to do this under the Water Resources Act.

2.14. The aim of minimising flood risk is a high priority for this project. The council has held 2-weekly discussions with the Environment Agency and received pre-application advice. This advice has been considered when assessing each of the potential options for reopening the bridge.

Preferred option

2.15. It is recommended that Cabinet select the preferred option of demolition of the existing structure and reconstruction of a new bridge. This could either be a two-span structure (i.e. with a single pier in the middle of the river) as set out in Option 5 or a single span structure (without a pier in the middle of the river) as set out in Option 6. There is very little difference between these two options and the estimated costs for each are the same. More detail is set out in Appendix 1.

2.16. Officers are recommending demolition of the existing structure and the construction of a new bridge as giving the lowest risk (during both construction and whole life) and the best service to the area, creating a low risk structure that can accommodate the river Wandle and the weight and volume of modern traffic. The cost of this option is approximately £3million. While the council will continue to seek external funding to help support this cost and are having ongoing discussions on liabilities, Cabinet are asked to consider this report under the initial scenario that the council will bear all the costs.

2.17. Appendix 1 sets out all six options in detail:

2.17.1 Option 1: demolishing c50% of the bridge: all of the broken northern arch and half the damaged central arch and rebuilding both in brick.

2.17.2 Option 2: demolishing c33% of the bridge: the broken northern arch only, repairs to the damaged central arch in brick

2.17.3 Option 3: do minimal repairs to the existing structure to allow cars but not busses or heavy vehicles to cross.

2.17.4 Option 4: demolish c66% of the bridge: all of the broken northern arch and the damaged central arch and rebuilding both in brick

2.17.5 Option 5: demolishing all of the existing bridge and rebuilding a new two-span concrete bridge (i.e. with a pier in the middle)

2.17.6 Option 6: demolishing all of the existing bridge and rebuilding a new single span bridge (i.e. crossing the river without a pier)

3 ALTERNATIVE OPTIONS

3.1. As set out in the body of the report.

4 CONSULTATION UNDERTAKEN OR PROPOSED

4.1. A regular newsletter is distributed to c3,000 homes, businesses, schools and other properties near Bishopsford Road Bridge to update occupiers on progress.

4.2. The council also has a dedicated webpage which is updated regularly, including with the contents of the newsletter and with any events that are held regarding the bridge www.merton.gov.uk/bishopsfordbridge

4.3. On 14th September 2019 council officers and local councillors held a drop-in coffee event on the Tooting and Mitcham Hub side of the bridge to give residents and anyone interested the opportunity to have an update on how works are progressing

4.4. On 16th October 2019 council officers attended Morden Community Forum to update on progress and answer questions.

4.5. Local schools and Tooting and Mitcham Hub have also been contacted to offer school travel plan and road safety training in recognition of the existing travel disruption. We have also engaged local businesses to offer them assistance.

4.6. In the future, if the new structure requires planning permission the council will undertake pre-application consultation on the design of the new structure.

4.7. The council is also in weekly consultation with the Environment Agency, SGN, UK Power Networks, Thames Water and BT Openreach on the technical aspects of delivering the project.

5 TIMETABLE

5.1. The proposed programmes for different options are set out in Appendix A

5.2. Should the preferred option be chosen, the following timetable is proposed:

DATE	ACTIVITY

March April 2020	Environment Agency Flood Risk Activity Permit Start on site. Create initial designs for new bridge including consultation with local people. Work with gas, water, electricity and broadband utilities on their diversions / equipment. Start procurement process for new bridge
May – June 2020	Public consultation on planning application for the new bridge. Submit Environment Agency permission for new bridge. Procure new bridge construction contractors End demolition phase
July – August 2020	Decisions on planning permission and Environment Agency permit Mobilise construction phase and start construction.

6 FINANCIAL, RESOURCE AND PROPERTY IMPLICATIONS

6.1. The estimated costs for each option are summarised in table below.

Options	Description of schemes	Estimated Costs (£'000)	Accounting treatment
1	Demolishing 50% of the bridge: all of the broken northern arch and half the damaged central arch and rebuilding both in brick.	£1,008	This project would be capitalised
2	Demolishing 33% of the bridge: the broken northern arch only, repairs to the damaged central arch in brick	£752	Envisaged this project would be a mixture of revenue and capital spend
3	Do minimal repairs to the existing structure to allow cars but not busses or heavy vehicles to cross	£880	Current proposal is a repairs to existing structure hence revenue costs
4	Demolish 66% of the bridge: all of the broken northern arch and the damaged central arch and rebuilding both in brick	£1,860	This project would be capitalised
5	Demolishing all of the existing bridge and rebuilding a new two-span concrete bridge (i.e. with a pier in the middle)	£2,690	This project would be capitalised
6	Demolishing all of the existing bridge and rebuilding a new single span bridge (i.e. crossing the whole river without a pier)	£2,690	This project would be capitalised

CAPITAL

6.2. The following adjustment to the proposed Business Plan 2020-24 has been made to make provision for the replacement of Bishopsford Bridge (Options 5 or 6):

Adjustments to the Proposed Capital Programme 2020-24 to Fund the Replacement of Bishopsford Bridge

Scheme	2020/21	2021/22	2022/23	2023/24	Total
	£000's	£000's	£000's	£000's	£000's
Corporate Capital Contingency	0	0	0	(2,690)	(2,690)
Bishopsford Bridge	£2,000	£690	0	0	2,690
Total	**£2,000**	**£690**	**0**	**(2,690)**	**0**

6.3. Assuming both projects will be repaid over 25 years they will have the following estimated impact on revenue budgets over the duration of the scheme:

Revenue Impact of the Proposed Change to the Capital Programme to Fund Bishopsford Bridge

	2020/21	2021/22	2022/23	2023/24	Full Year	2046-47	2047-48	2048-49
	£000's	£000's	£000's	£000's	£000's	£000's	£000's	£000's
Minimum Revenue Provision	0	£80	£108	£108	0	(90)	(108)	(108)
Interest	£62	£86	£83	(£10)	(£10)	(£10)	(7)	(3)
Total	**£62**	**£166**	**£191**	**£98**	**(£10)**	**(£100)**	**(£115)**	**(111)**

Please Note: The table above shows that the main impact of the proposed change will impact at the beginning and the end of the funding period, from 2024/25 to 2045/46 the only difference is that caused by the amount of the principal sum outstanding. As the Bishopsford Bridge scheme starts earlier it has a lower principal sum outstanding

6.4. This proposal will reduce the Corporate Capital Contingency from £4,833,900 to £2,143,900.

6.5. REVENUE

6.6. Costs in relation to revenue activities such as engagement/liaison, web page development and maintenance and newsletters cannot be capitalised and would need to be met from revenue budgets.

6.7. Bishopsford Road Bridge lies in a conservation area and as such substantial works to it are likely to require planning permission. Planning permission (including pre-application engagement with local communities) is being factored into all options.

6.8. The council is making provisions to cover these costs in order to reopen the bridge as swiftly and as safely as possible while continuing to explore other avenues to cover the costs of the works.

6.9. Members should note that the above are estimated total costs and the final cost will only be known once final designs are completed and the work competitively tendered.

7 LEGAL AND STATUTORY IMPLICATIONS

7.1. In relation to the subsequent work required in response to the partial collapse of the bridge, the council is operating under its Constitution and contract standing orders. The council and its main contractor FM Conway are working together under the terms of the existing NEC3 contract in place at the time of the event.

7.2. Under the terms of the council's new Highways Contract 2019, the council may procure any works of over £500,000 outside of the contract. All the options that have been considered and are addressed in Appendix A will require a procurement exercise to seek a contractor to undertake the work and this has been factored into the programme.

8 HUMAN RIGHTS, EQUALITIES AND COMMUNITY COHESION IMPLICATIONS

8.1. None for the purposes of this report.

9 CRIME AND DISORDER IMPLICATIONS

9.1. None for the purposes of this report.

10 RISK MANAGEMENT AND HEALTH AND SAFETY IMPLICATIONS

10.1. Bishopsford Road Bridge is on the council's corporate risk register and is being closely monitored as a high priority.

10.2. The council has prepared a bespoke update to its emergency plan to take account of the site-specific considerations and arrangements for any incident involving the bridge and local residents.

10.3. The council, the Environment Agency and FM Conways agreed a flood resilience management plan in July 2019 which sets out what technical actions would be taken in the event of a flood to de-risk the area and who is responsible for them (e.g. supply of water pumps, etc.) This is being regularly reviewed and was most recently updated in December 2019

11 APPENDICES

11.1. Appendix 1: summary of options

11.2. Appendix 2: latest newsletter (January 2020)

12 BACKGROUND PAPERS

Bishopsford Road Bridge feasibility options (WSP) – February 2020

Bishopsford Road Bridge repair proposals (FM Conway) – February 2020

Wandle Vally Conservation Area Character Appraisal

Background papers are available on Merton Council's website:

www.merton.gov.uk/bishopsfordbridge

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