

SURREY COUNTY COUNCIL

LOCAL COMMITTEE (REIGATE & BANSTEAD)



DATE: 3 MARCH 2014

LEAD OFFICER: ZENA CURRY, INFRASTRUCTURE TEAM LEADER

SUBJECT: C58/880 FLANCHFORD BRIDGE – FLOOD DAMAGE REPAIR INFORMATION – URGENT ITEM

DIVISION: REIGATE

SUMMARY OF ISSUE:

Flanchford Bridge was damaged by the extreme weather events from 24 December 2013. Although the parapet was damaged, the more significant damage was caused to the foundations of the bridge by the actions of fast moving deep water from the flooded River Mole.

For safety reasons the bridge has been closed to vehicular traffic, until permission can be granted by the Environment Agency for working in the River Mole to carry out repair work and temporary traffic management.

In the longer term, and subject to funding, it is planned to replace the bridge with a new single span bridge. The feasibility design of this is being carried out and, subject to constraints, it is planned that this new bridge could be built in the next financial year.

RECOMMENDATIONS:

The Local Committee (Reigate & Banstead) is asked to note the report.

REASONS FOR RECOMMENDATIONS:

This item is for information only.

1. INTRODUCTION AND BACKGROUND:

1.1 Flanchford Bridge is a two span brick arch bridge carrying the C58 Flanchford Road over the River Mole. The central pier of the bridge is located within the River Mole and is on a 40° skew alignment to the direction of river flow. It is a narrow, approximately 3.3m wide, single way bridge on a rural east-west route between south Reigate and south Dorking, near Leigh.

1.2 Flanchford Bridge is on the County list of Floodwatch structures and is vulnerable to scour. Scour is when fast moving deep water causes material around bridge foundations and piers to be scooped away creating scour

holes. These scour holes can compromise the strength of the bridge and are one of the three main causes of bridge collapse.

- 1.3 The recent extreme weather events resulted in damage to Flanchford Bridge that required the Flanchford Road to be closed to vehicular traffic on 24 December 2013. The flooding of the River Mole caused not only the obvious damage to the parapet but also signs that the bridge has experienced scour and requires a weight restriction. A detailed inspection, including an underwater diving inspection and structural assessment, has been carried out to determine the required weight limit.
- 1.4 Flanchford Road will remain closed to vehicular traffic until repairs can safely be carried out to the bridge. These repairs require scaffolding to be erected on the banks and over the River Mole. Permission has to be granted by the Environment Agency, for the works, and this will be determined when the flood risk has subsided.
- 1.5 Once the repairs have been carried out, the road will reopen to vehicular traffic under a 3T weight limit and 6' 6" width restriction under temporary traffic signal control. A 6' 6" width restriction helps prevent larger, over weight vehicles from using the bridge. Traffic signals are required to prevent vehicles attempting to reverse back through a width restriction if a vehicle is coming the other way. The traffic orders for these restrictions have been granted. The road will then be open to use by Surrey Residents in light vehicles.
- 1.6 In the longer term, and subject to funding, it is planned to replace the bridge with a new single span bridge. The feasibility design of this is being carried out and, subject to constraints, it is planned that this new bridge could be built in the next financial year. The temporary measures and weight restriction will remain in place, for safety, until a new bridge is constructed.

2. ANALYSIS:

- 2.1 Flanchford Bridge will be reopened to vehicular traffic as soon as repairs can safely be carried out, under a 3 tonne weight restriction and 6' 6" width restriction and temporary traffic signal control.
- 2.2 In the longer term, and subject to funding, it is planned to replace the bridge with a new single span bridge.

3. OPTIONS:

- 3.1 The only safe alternative to reopening the bridge to vehicular traffic under a 3T weight limit and 6' 6" width restriction under temporary traffic signal control would be to keep the road closed.
- 3.2 Feasibility is being carried out in to a new single span bridge and, subject to constraints, it is planned that this new bridge could be built in the next financial year. The priority for the new bridge is that it is more resilient to flooding, has a larger aperture for the River Mole to pass through and foundations that are not vulnerable to scour. The temporary measures and weight restriction will remain in place, for safety, until a new bridge is constructed

4. CONSULTATIONS:

- 4.1 Consultations will take place as part of the Feasibility study for a new single span bridge.
- 4.2 The Parish Council have expressed a preference for a new bridge to remain as a single carriageway bridge to provide traffic calming but also to make provision for pedestrians and cyclists.

5. FINANCIAL AND VALUE FOR MONEY IMPLICATIONS:

- 5.1 The costs of the road closure and diversion signs, inspections, assessment and feasibility study will be funded from the bridge strengthening budget.
- 5.2 Applications have been made for financial support under the Bellwin scheme for the initial flood response and under the Severe Weather Recovery Scheme for the longer term damage repair.

6. EQUALITIES AND DIVERSITY IMPLICATIONS:

- 6.1 The feasibility in to a new single span bridge will investigate the possibility of a footway to provide better access for pedestrians, wheelchairs and pushchairs.

7. LOCALISM:

- 7.1 The C28 Flanchford Road provides a link across the River Mole between the communities of Reigate and Dorking. The Flanchford Bridge is vulnerable to damage when the River Mole is in flood. Other alternative local bridges, that cross the River Mole, are also vulnerable to being impassable during flooding.
- 7.2 A new replacement single span bridge would increase capacity of the River Mole, and have the opportunity to be slightly raised giving greater resilience to flooding.

8. OTHER IMPLICATIONS:

Area assessed:	Direct Implications:
Crime and Disorder	No significant implications arising from this report.
Sustainability (including Climate Change and Carbon Emissions)	Set out below.
Corporate Parenting/Looked After Children	No significant implications arising from this report
Safeguarding responsibilities for vulnerable children and adults	No significant implications arising from this report
Public Health	No significant implications arising from this report

8.1 Sustainability implications

The feasibility in to a proposed new single span bridge will take sustainability in to account.

9. CONCLUSION AND RECOMMENDATIONS:

9.1 This item is for information only.

10. WHAT HAPPENS NEXT:

10.1 The committee will be informed when Flanchford Bridge will be reopened to vehicular traffic under a 3Tonne weight restriction and 6' 6" width restriction and temporary traffic signal control.

10.2 The committee will be informed when the Feasibility in to a long term solution to the vulnerability of the Flanchford Bridge to flooding has been produced.

Contact Officer:

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Consulted:

The local elected Members, and Parish Council have been kept informed on the flood repairs to Flanchford Bridge.

Annexes:

None.

- **Sources/background papers:**
None