

Division(s): Jericho & Osney

CABINET MEMBER FOR ENVIRONMENT – 31 MAY 2019

OXFORD - GEORGE STREET/HYTHE BRIDGE STREET/WORCESTER STREET JUNCTION – REVISED AMENDED JUNCTION LAYOUT AND PEDESTRIAN & CYCLE PROVISION

Report by Director for Planning & Place

RECOMMENDATION

1. **The Cabinet Member for Environment is RECOMMENDED to approve the revised design for the George Street/Worcester Street/Hythe Bridge Street junction and the necessary changes to the Traffic Regulation Order governing traffic movements as advertised in May and June 2018.**

Executive Summary

2. As part of the Local Growth Fund Connections to Oxford Station project, proposals for improvements to the George Street/Hythe Bridge Street/Worcester Street junction in the centre of Oxford including changes to Traffic Regulation Orders (TROs) were consulted on formally last summer; the results of that consultation were reported to the 12 July 2018 Cabinet Member Decisions (Environment) meeting. The design consulted on last year is at Annex 1.
3. At that meeting, the Cabinet Member for Environment decided not to approve the changes to traffic movements in order that officers could consult key stakeholders on further improvements to the detailed design in the light of the consultation responses and the outcome of the Road Safety Audit process.
4. Officers were also asked to consider the implications of the Botley Road corridor study and the Phil Jones Associates report for the design and specification of the scheme. This has now been done and the improvements to the scheme layout made. Key stakeholders have also been given the opportunity to comment on this. The improved design can be seen at Annex 2. Approval is now sought for the amended TROs and improved junction layout.

Background

5. The council's adopted LTP4 seeks to encourage more use of sustainable modes of transport and the improvements to the George Street/Hythe Bridge Street/Worcester Street junction set out in this report are intended to support this aim. The junction was changed in 2014 to facilitate traffic diversions during the construction of the improvements in Frideswide Square and to allow - in the finished scheme - some traffic to avoid Frideswide Square, which traffic modelling at the time indicated was necessary to the overall functioning of the network in the area.

6. The new layout of Frideswide Square has now been in place for three and half years and has performed better than expected in terms of traffic flows. Meanwhile, the George Street/Hythe Bridge Street/Worcester Street junction layout has proved to be unpopular with users, especially pedestrians and cyclists. In particular, concerns have been consistently raised about the comfort and safety of cyclists making the “straight on” movement from Hythe Bridge Street to George Street and about the amount of time that pedestrians have to wait before a green man crossing phase is shown.
7. Given that Frideswide Square has performed well since the opening of the new layout in December 2015, it is no longer considered as important to allow some traffic movements to and from north Oxford to avoid Hythe Bridge Street. Along with the reported problems for pedestrians and cyclists, and the fact that the immediate approaches to the junction are regularly congested (with associated delay to buses) it was considered appropriate to review and consult on changes to the junction design.

Improvements to the junction design

8. Changes to the junction design were consulted on in the spring and early summer last year and a proposal was reported to the Cabinet Member for Environment on July 12. In the light of comments on the detail of the design, she requested that further work be carried out to improve the layout. This report updates the Cabinet Member on improvements to the layout and the feedback subsequently received from stakeholders. The improved design is at Annex 2.
9. A fundamental aspect of the improved design for which approval is sought is still for the junction to operate as two separate movements to reduce wait times overall for all users i.e. only Hythe Bridge Street to Worcester Street North and vice versa, and George Street to Worcester Street South and vice versa. This means that like with the design consulted on last summer, delays to all users at the junction will still be significantly reduced compared to the current arrangement. The aim is still to minimise physical changes, with very little of the 2014 construction needing to be removed.
10. A significant change to the design prompted by the consultation response last summer is the re-introduction of the pedestrian crossing across the Hythe Bridge Street arm of the junction. This was originally omitted to help maximise the efficiency of the new junction layout. Modelling has shown that even after it has been reinstated, the junction works much more efficiently for all users compared to the existing layout. It has also been possible to add Advanced Stop Lines (ASLs) for cyclists (with waiting reservoirs) on both Hythe Bridge Street and Worcester Street North approaches to the junction. Lead in cycle lanes have been added for all arms of the junction.
11. The island protected waiting area in between Hythe Bridge Street and Worcester Street North (the ‘teardrop’) and the waiting area between

Worcester Street North/South and George Street (the 'bowtie') have been retained in the improved design.

Benefits of preferred design

12. In the preferred option, the teardrop provides a larger and better protected waiting area for cyclists travelling west to east into George Street - for when they are opposed by traffic moving from Worcester Street North to Hythe Bridge Street.
13. The cyclist ASL with waiting area in Hythe Bridge Street means that an early release green signal period for eastbound cyclists can be provided (indicated by the usual primary signal heads for all users and also separate low level cycle signal aspects). There will also be an early release green cycle period for westbound cyclists in George Street.
14. The early release for cyclists in Hythe Bridge Street means it will be easier to them to get across into the teardrop waiting area. For some at the front of the Hythe Bridge Street queue, it will mean they can get right across Worcester Street North into the bowtie waiting area. Whichever direction they are travelling in, cyclists emerging from the bowtie waiting area would need to give way to traffic (or any pedestrians using the crossings).
15. Detection equipment is proposed for both teardrop and bowtie waiting areas so that the all red period in the traffic signal phasing is given more time before the green man shows. This will allow cyclists still waiting in the teardrop and bowtie to proceed right through the junction unopposed by traffic.
16. As in last summer's design where the main traffic movements were separated out, the amended preferred design at Annex 2 will see wait times for all users significantly reduced. Queueing of traffic approaching the traffic lights in all cases will be reduced and as such, in Hythe Bridge Street and Worcester Street North, this should result in generally better conditions for cyclists as they approach the junction.
17. Compared to now, there should be a lot fewer incidents of pedestrians crossing at the junction when a red man is showing, as wait times will be significantly shorter than now. This is a very popular way for people to walk to and from the city centre and the rail station so it's very good that this part of the journey can be improved.
18. Whilst the outcome of a Road Safety Audit (RSA) has informed the latest design, an addendum to the audit is currently taking place to reflect comments received from the council's traffic signals team. It is, therefore, still possible that there may be some minor changes before the scheme is built, if approved. The RSA addendum was not complete in time for the writing of this report; officers will verbally report any significant findings of the RSA addendum at the meeting.

Possible alternative option

19. In response to feedback from last summer's consultation, another alternative design option was carefully investigated in order to simplify the cycle movement from Hythe Bridge Street to George Street and give some more space for cargo bikes and trailer bikes in the bowtie waiting area. It involved separately running the Hythe Bridge Street to Worcester Street North and Worcester Street North to Hythe Bridge Street movements so cyclists travelling from Hythe Bridge Street to George Street could do so unopposed by traffic moving from Worcester Street North to Hythe Bridge Street. There would, therefore, have been no need for the first teardrop island protected waiting area.
20. Despite these possible benefits though, this alternative arrangement would have had a significant negative impact on all users (pedestrians and cyclists included) by increasing wait times compared to the improved preferred option. Indeed, congestion would not have been improved very much at all compared to the current very inefficient layout.

Informal stakeholder consultation on preferred design

21. As requested by the Cabinet Member for Environment at the 12 July meeting last year, officers have carried out a targeted informal consultation with selected stakeholders including cycling, pedestrian and access groups and bus operators. This included Pedal and Post cycle couriers who had concerns about the implications of the design for its business. What follows is a summary of the main issues raised by the stakeholders about the junction design (the full responses to the consultation are available as background papers).
22. The **local county and city councillor**, Susanna Pressel was largely positive in her response to the consultation acknowledging that design changes had been made as a result of stakeholder comments made in the 2018 consultation. One concern she had was whether the teardrop waiting area is big enough to accommodate those making the manoeuvre into George Street in the morning peak period.
23. **Cyclox and Cycling UK's** joint response recognises that there are some aspects of the preferred design that represent an improvement compared to last summer's design. However, they object to the preferred design on the basis of a number of matters of detail, notably the limited size of the waiting areas and the difficulty for cyclists turning right from Hythe Bridge Street into George Street.
24. **Pedal & Post** cycle courier company restated their objection to the design that includes the teardrop island because their cargo bikes cannot fit within the waiting space area. It also suggests that in the light of the Phil Jones Associates city centre movement report it is premature to be making changes to the Hythe Bridge Street/George Street junction.

25. **OXTRAG** suggest that the bowtie waiting area may be used by pedestrians crossing diagonally from Worcester Street South to Worcester Street North and therefore potentially conflicting with cyclists. It also requests additional signal heads facing cyclists as they emerge from the “Bowtie” to help them know when to proceed safely.
26. Officer responses to these most significant concerns are as follows:

Teardrop waiting island not big enough to accommodate cyclists:

The teardrop island is bigger than the current waiting area. Because the new signal arrangements will reduce delays and wait times at the junction, most of the time, there should be fewer cyclists needing to wait in the island area at any one time. For some cyclists at the front of the queue in Hythe Bridge Street, the advanced green release will mean they can get right across Worcester Street North into the bowtie waiting area further reducing the pressure on the teardrop island space.

Difficulty for cyclists turning right from Hythe Bridge Street into George Street:

The straight on movement into George Street is effectively a right turn movement. Whilst it is impossible in design terms to completely eliminate this issue the improved design helps. The ASL reservoir with lead in lane allows cyclists a better chance of getting to the front of the queue of eastbound traffic in Hythe Bridge Street. Additionally, there will be an advanced period of green time for cyclists only to help with the right turn.

Waiting areas cannot accommodate cargo or trailer bikes:

There isn't enough space to do this without separately signalling the Worcester Street North to Hythe Bridge Street and Hythe Bridge Street to Worcester Street North movements. As set out earlier, this would result in fundamental disbenefits to all users including cyclists and pedestrians. There is an alternative route for these bigger bicycles to get to George Street – Park End Street/Worcester Street South – which is only marginally longer.

Conflict between cyclists and pedestrians in bowtie waiting area

The nature of the bowtie which includes kerbed islands and bollards should reduce the attractiveness of this route for pedestrians as well as ensuring they are aware that it is not a formal route. Pedestrians will be clearly visible to cyclists riding to and through the bowtie; this will help reduce the possibility of conflict.

Additional signal heads needed for cyclists emerging from bowtie waiting area

Officers do not believe that such additional signals are needed and in fact could result in cyclists taking less care in the event they see a green signal; they may fail to look out for traffic.

Works at this junction premature ahead of implementation of Phil Jones Associates report recommendations

Please see below.

27. Additional more minor matters of detail were raised which would be more appropriately addressed during the detailed design stage ahead of construction e.g. number and spacing of bollards, exact shape and height of islands, colour of the surfacing.

Botley Road improvement scheme and Phil Jones report

28. At the 12 July meeting last year, the Cabinet Member for Environment instructed officers to consider the implications of the Botley Road corridor study and the Phil Jones Associates report for the design and specification of the scheme.
29. One possible outcome of building the preferred option for the junction is that the rate of westbound traffic flow leading into Botley Road may increase during the evening peak, potentially worsening congestion. However, one of the key objectives of the Botley Road scheme is to improve outbound traffic flow and enhance bus priority which should address the possible negative effects of periods of higher rate of westbound traffic flow in the corridor.
30. Nevertheless, in the period after the delivery of this scheme and before the delivery of the Botley Road improvements, it should be possible to use the traffic signals in Worcester Street North to artificially slow the rate of flow of westbound traffic to some extent and for specific short periods of the evening peak to stop congestion from getting worse in Botley Road.
31. As regards the advisory Phil Jones Associate's (PJA) report, its recommendations have not been endorsed by the county and city councils but rather were intended to generate further debate about city centre movement. Many of the report's recommendations, including those relating to city centre traffic and bus routeing, are dependent on effective transport demand management measures (e.g. congestion charge, access restrictions or workplace parking levy) being implemented first. There are, therefore, no plans to implement traffic or bus routeing changes in the Hythe Bridge Street area in the near future. As such, it is not considered necessary or desirable to delay the improvements for all users at this junction while the PJA proposals are considered and developed.

Traffic Regulation Order Decision

32. In order to deliver the preferred design, changes to the current traffic movements need to be made. The schematic plan at Annex 3 from the Cabinet Member for Environment Decisions report on 12 July 2018 shows how traffic movements would need to change. These are governed by a Traffic Regulation Order (TRO), the necessary changes to which were subject to a formal consultation last summer.
33. The details of this consultation and the objections to the advertised TRO changes were reported to the meeting on 12 July 2018. Annex 3 to that report set out the officers' responses to the objections. The latest amendments to the junction layout do not require any changes to the amended TRO that was consulted on last summer – the changes to the current traffic movements needed remain the same. As such, the officers' recommendation also remains the same – that the TRO changes are approved to allow the improvements to the junction to be made.

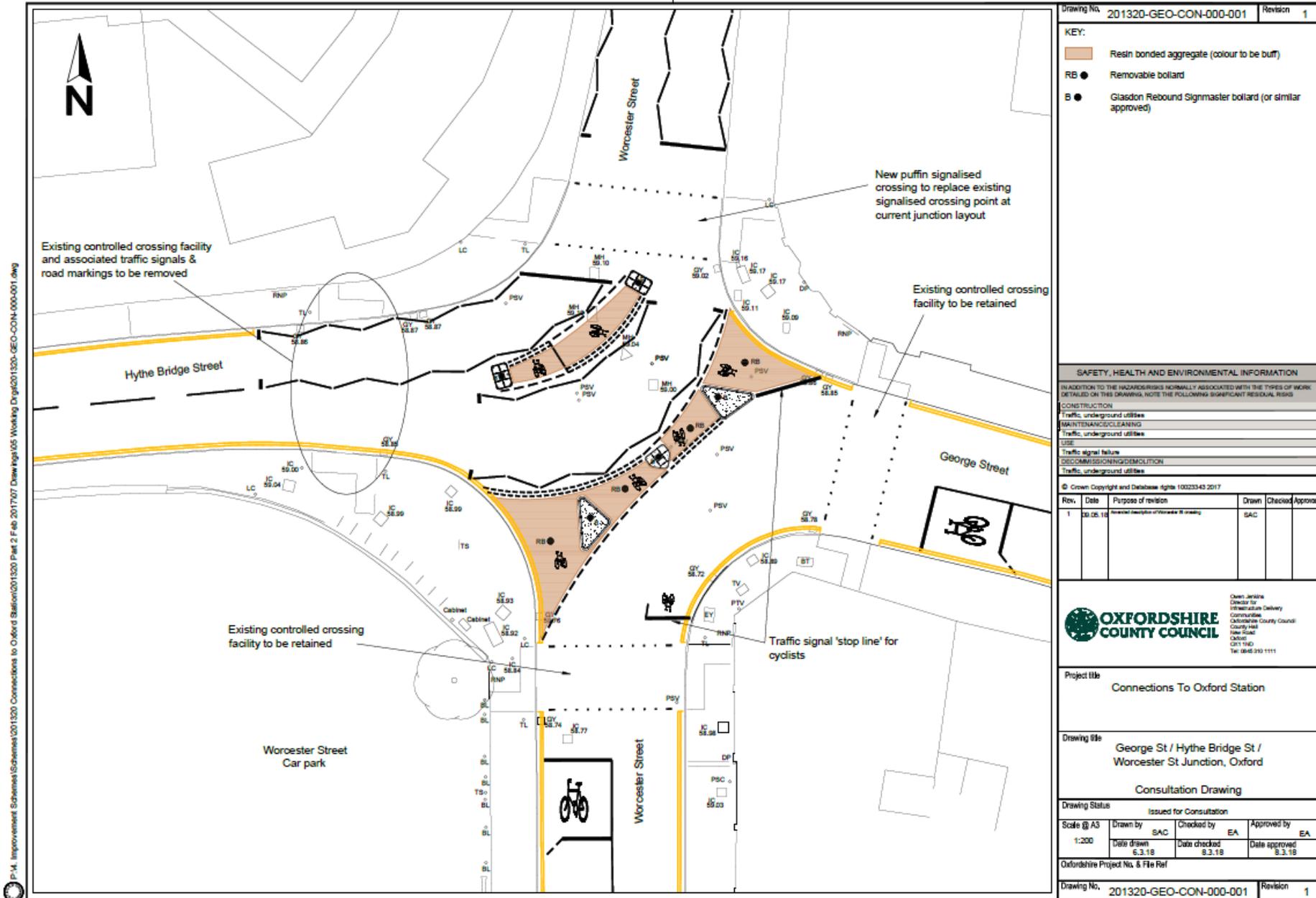
Construction timetable

34. If approved construction of the improved George Street/Hythe Bridge Street/Worcester Street junction would start at the beginning of September this year following on directly from carriageway maintenance work already scheduled to take place over the summer in Hythe Bridge Street and Walton Street. The work to improve the junction is expected to take approximately 4 to 6 weeks and would be followed in early 2020 by changes to the neighbouring New Road/Park End Street junction which was consulted on alongside the initial proposals for George Street/Hythe Bridge Street/Worcester Street junction (and Speedwell Street/St Aldate's junction) in May and June 2017. This was as part of a wider plan for city centre transport improvements and a proposed experimental closure of Queen Street.
35. Following the 2017 consultation, Cabinet approved the proposals for removal of traffic lights and installation of zebra crossings at Speedwell Street/St Aldate's and New Road/Park End Street. Traffic signals at the Speedwell Street/St Aldate's junction were removed in May last year. At the same time as asking for views on the revised design for George Street/Hythe Bridge Street junction, key stakeholders were also asked whether they had any comments on the proposals for the New Road/Park End Street junction in the light of their experience of the Speedwell Street/St Aldate's junction. No concerns were raised. It is, therefore, proposed to implement the proposals subject to sufficient funding being available.

Financial and Staff Implications

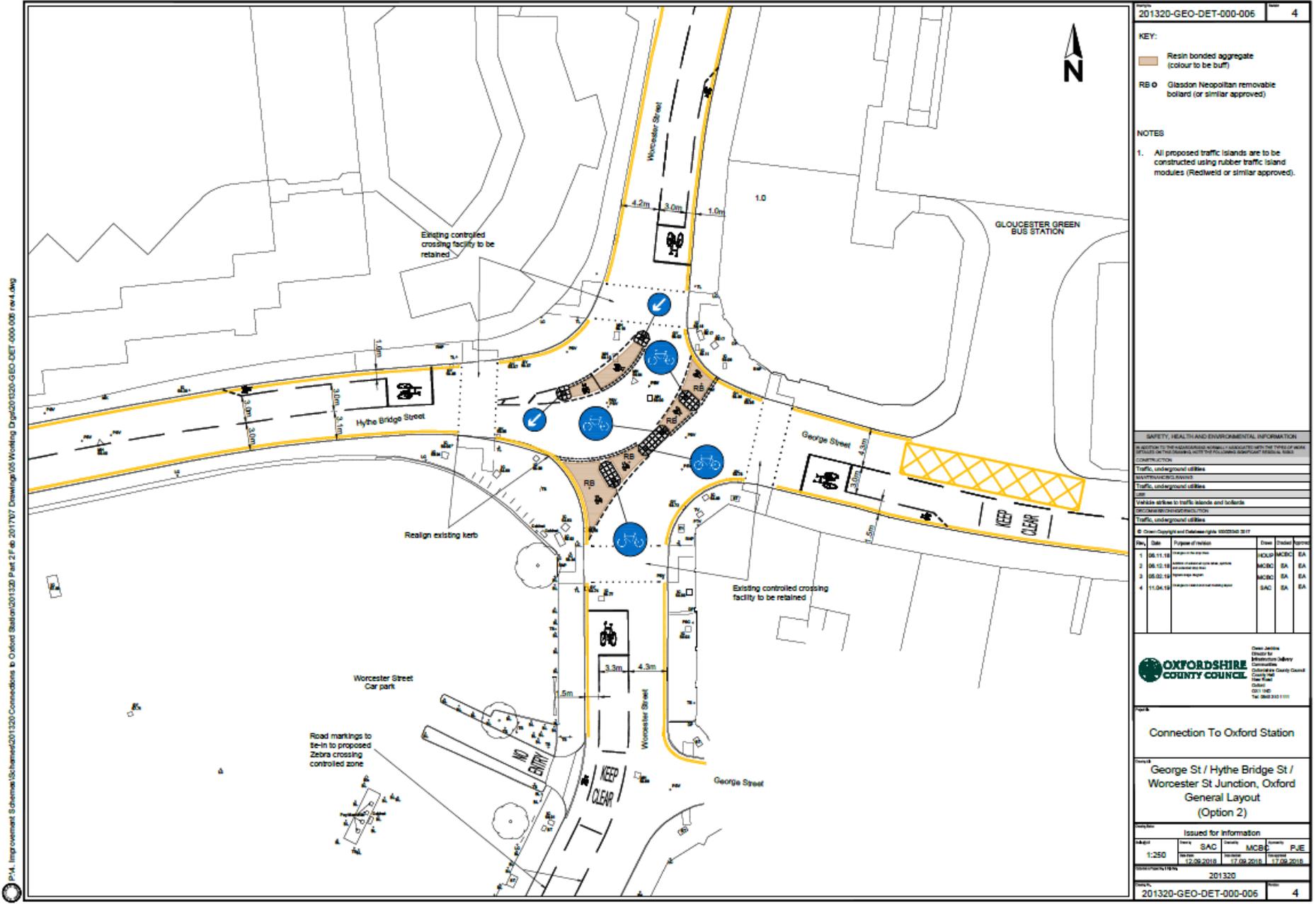
36. The planning, consultation and design of the proposals has been funded using S106 developer funds (£170k) and capital awarded by the Oxfordshire Local Enterprise Partnership, as part of the Local Growth Fund (£800k) – a total of £970k. Further detailed design work and construction will also be funded from this source and is not expected to exceed the funding already allocated to this

2018 LAYOUT



Drawing No.	201320-GEO-CON-000-001	Revision	1		
KEY:					
	Resin bonded aggregate (colour to be buff)				
	Removable bollard				
	Glasdon Rebound Signmaster bollard (or similar approved)				
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION					
IN ADDITION TO THE HAZARDOUS RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS					
CONSTRUCTION					
Traffic, underground utilities					
MAINTENANCE/CLEANING					
Traffic, underground utilities					
USE					
Traffic signal failure					
DEMOLITION/DEMOLITION					
Traffic, underground utilities					
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Rev.	Date	Purpose of revision	Drawn	Checked	Approved
1	03.08.18	Revised description of Worcester St crossing	SAC		
<p>Owen Jarline Director for Infrastructure Delivery Communities Oxfordshire County Council County Hall New Gate Oxford OX1 1HG Tel: 0845 353 1111</p>					
Project title					
Connections To Oxford Station					
Drawing title					
George St / Hythe Bridge St / Worcester St Junction, Oxford					
Consultation Drawing					
Drawing Status					
Issued for Consultation					
Scale @ A3	Drawn by	Checked by	Approved by		
1:200	SAC	EA	EA		
Date drawn	Date checked	Date approved			
6.3.18	8.3.18	9.3.18			
Oxfordshire Project No. & File Ref					
Drawing No.	201320-GEO-CON-000-001	Revision	1		

IMPROVED LAYOUT (2019)



014 - Improvement Scheme/Schematic/201320/Connections to Oxford Station/201320-DET-000-006 new4.dwg
 21 Feb 2017 07:07 Drawings/05 Working Dwg/201320-DET-000-006 new4.dwg

201320-GEO-DET-000-006		4			
KEY:					
Resin bonded aggregate (colour to be buff)					
RB Glasson Neopollan removable bollard (or similar approved)					
NOTES					
1. All proposed traffic islands are to be constructed using rubber traffic island modules (Redweld or similar approved).					
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION					
In addition to the usual safety warnings associated with the terms of work detailed on this drawing, note the following additional safety issues: CONSTRUCTION Traffic, underground utilities MAINTENANCE/REPAIRS Traffic, underground utilities USE Vehicle strikes to traffic islands and bollards DECOMMISSION/DEMOLITION Traffic, underground utilities					
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Rev.	Date	Purpose of revision	Drawn	Checked	Approved
1	06.11.18	Issue for review	HJUP	MCBC	EA
2	06.12.18	Issue for construction	MCBC	EA	EA
3	05.02.19	Revised design	MCBC	EA	EA
4	11.04.19	Issue for construction	SAC	EA	EA
Owen Jenkins Director for Infrastructure Delivery Oxfordshire County Council County Hall Oxford OX1 1JG Tel: 01865 211111					
OXFORDSHIRE COUNTY COUNCIL					
Connection To Oxford Station					
George St / Hythe Bridge St / Worcester St Junction, Oxford General Layout (Option 2)					
Issued for information					
Scale	Drawn	Checked	Issued	Approved	
1:250	SAC	MCBC	PJE		
Issue Date	Issue Date	Issue Date	Issue Date	Issue Date	
17.09.2018	17.09.2018	17.09.2018	17.09.2018	17.09.2018	
201320					
201320-GEO-DET-000-006		4			

Proposed changes to traffic movements at the George Street/Hythe Bridge Street/Worcester Street junction

NB – all movements allowable for cyclists

