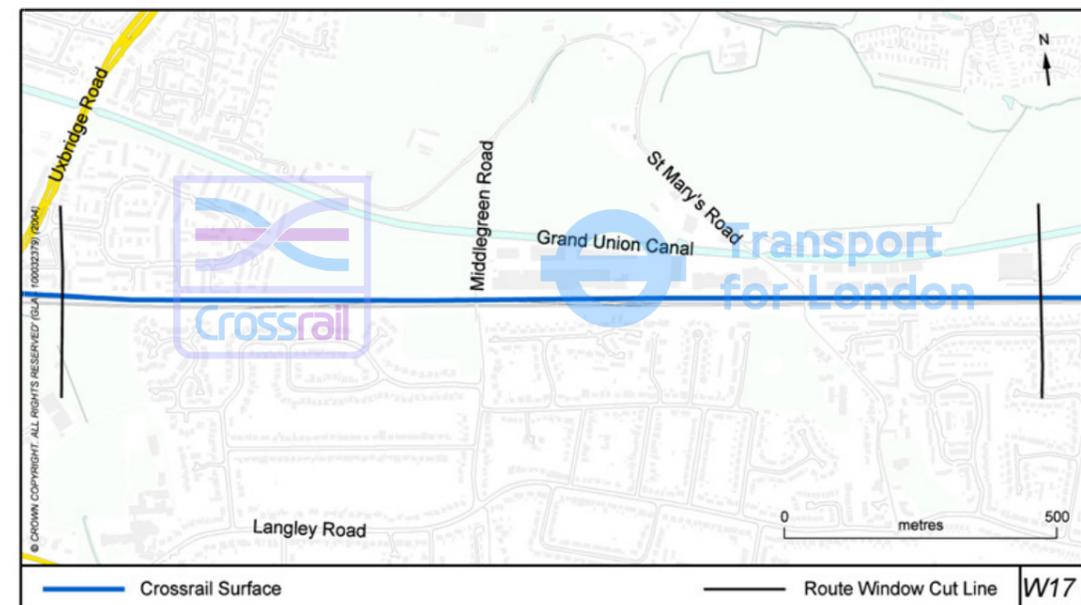


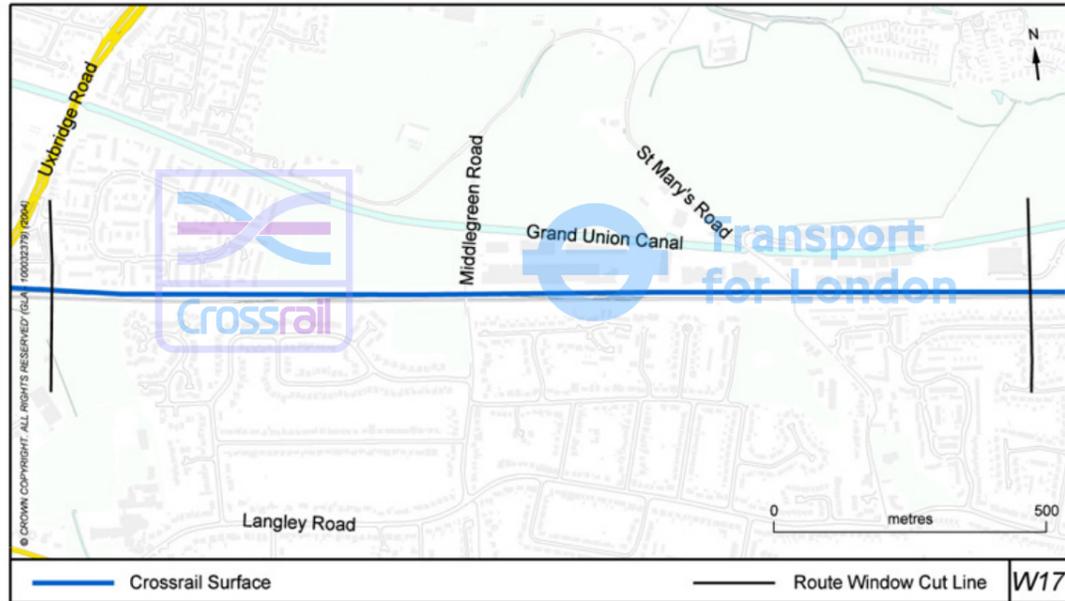
Chapter 10

Route window W17

Middlegreen Road, St Mary's Road and Trenches bridges



10 Route window W17 Middlegreen Road, St Mary's Road and Trenches bridges



Introduction

- 10.1 In order to provide overhead line equipment along the Crossrail route bridge modifications will be required to:
- Middlegreen Road bridge;
 - St Mary's Road bridge; and
 - Trenches footbridge.
- 10.2 One worksite is associated with each of the bridges:
- Middlegreen Road bridge worksite north;
 - St Mary's Road bridge worksite south; and
 - Trenches footbridge worksite north.
- 10.3 It is expected that the construction for the three bridges will take three and a half months, seven months and 6 months respectively.
- 10.4 The drawings provided at the end of this chapter present the main features of the route window and the assessed construction lorry routes.

Baseline conditions

Middlegreen Road bridge

- 10.5 Middlegreen Road is an unclassified road that lies approximately midway between Langley and Slough stations in the Borough of Slough. Middlegreen Road Bridge provides a single lane over the Great Western Main Line where a signal operated contra-flow is in operation. There are no local bus services that operate a route over Middlegreen Road Bridge.
- 10.6 Pedestrian movement over the bridge is possible using a narrow footway on the western side of the bridge; however, there are no footways on either of the approaches.

St Mary's Road bridge

- 10.7 St. Mary's Road is an unclassified road to the west of Langley Station, and approximately 500 m to the east of Middlegreen Road bridge. The road over the railway is open to one way traffic, controlled by traffic signals. There is a footway on the western side of the bridge allowing pedestrian movements. The bridge is in the Borough of Slough.
- 10.8 Currently one bus route runs along St Mary's Road from Langley Road in the south to its junction with Middlegreen Road in the north. This service runs approximately every two hours between the hours of 0800 and 1600 on weekdays and Saturdays. This service does not run on Sundays.
- 10.9 A recent survey showed that 122 and 33 pedestrians and cyclists respectively crossed St Mary's Bridge between the hours of 0700 and 1900.
- 10.10 Langley Manor School is located immediately north of this Trading Estate.

Trenches bridge

- 10.11 This footbridge is to the west of Langley station and connects Alderbury Road West to the south with the Grand Union Canal to the north. Langley Trenches Footbridge is in the Borough of Slough.
- 10.12 The bridge carries a public footpath and National Cycle Network in a north to south direction over the Great Western Main Line. It is also signed as the Colne Valley Trail for walkers and riders, however infrastructure is not particularly good for horses.
- 10.13 A recent survey showed that 644 pedestrians and 77 cyclists were observed to cross the bridge between 0700 and 1900.

Potential changes in baseline conditions

- 10.14 Middlegreen Trading Estate is located on the north west side of the bridge. Currently lorries carrying abnormal loads have to access the site from the south side of St Mary's bridge due to junction alignment constraints. It is understood that the tenant will be moving from this site before the start of construction and it is unlikely that the new tenant will have abnormal lorry loads regularly delivered to the site. There is therefore no need to provide a temporary road bridge to ensure continued access to the Trading Estate.

The permanent works

Middlegreen Road bridge

- 10.15 Middlegreen Road bridge works will take about three and half months to complete. Utilities will first be diverted across a temporary utilities bridge. The main bridge works will involve demolition of the brick arches, installation of new precast concrete arch units, in-fill and concreting over the arch units, provision of new parapets, reinstatement of track ballast, re-laying of utilities and finishing works.

St Mary's Road bridge

- 10.16 A temporary pedestrian/services bridge will be provided before the existing bridge is demolished. Construction of the new bridge will then involve provision of the piers and the south abutment, prior to the installation of bedstone units and concrete beams. Finishing works will include the provision of bridge decks and parapets. On completion, the temporary bridge will be removed.

Trenches footbridge

- 10.17 Demolition of the existing superstructure will be undertaken, while retaining the brick abutments and piers. Bedstone units will then be cast into place before the new bridge is lifted into position and finishing works are completed.

Worksite assessment (group 1)

- 10.18 One worksite is immediately accessed off Middlegreen Road and is described below. The lorry route is shown on Map W17 (iv).

Middlegreen Road bridge worksite north

- 10.19 There is one proposed worksite associated with the works at Middlegreen Road bridge. The Middlegreen Road bridge worksite north is located northwest of the bridge in an area of Bloom Park as shown in figure 10.1. Access to this site will be constructed directly from Middlegreen Road.
- 10.20 Works at this site will require the bridge to be closed for a period of approximately five weeks. During this period pedestrians, cyclists and vehicles will need to be diverted.
- 10.21 The vehicle diversion route from the south continues past the junction of Langley Road with Middlegreen Road to the junction with St Mary's Road. The route extends north along St Mary's Road and rejoins Middlegreen Road approximately 300 m north of St Mary's Road bridge. The total diversion is approximately 800 m. Cyclists and pedestrians will also be diverted over St Mary's Road bridge, but via a shorter route of 500 m. The route, from the south will be along Downs Road, through Springgate Field on a proposed cycle route, along St Mary's Road where it re-joins Middlegreen Road.
- 10.22 There are no bus services along Middlegreen Road, and the diversion will therefore have no impact on public transport.

- 10.23 This diversion has no significant impact for any road users, as the diversion lengths and demand are considered too low to be significant.



Figure 10.1: Middlegreen Road bridge worksite north

- 10.24 It is recommended that during the road closures, appropriate signage be used to alert road users to closures and possible diversion routes.
- 10.25 No significant traffic and transport impacts have been identified that are associated with this worksite.
- ### ***Lorry route assessment***
- 10.26 Lorry access to the worksite will be dependent on the bridge closures. Whilst the bridge remains open, lorries will access the worksite from the A4 London Road, Langley Road and Middlegreen Road.
- 10.27 During the construction period when the bridge will have to be closed lorries will continue along Langley Road to the junction with St Mary's Road (approximately 1 km east of the Middlegreen junction). The route will follow St Mary's Road to its junction with Middlegreen Road, where the route continues south to the site access.
- 10.28 Peak construction activities will occur for a period of approximately five weeks, during which time the number of lorries generated by the worksite will be eight per day. At other times the typical number of lorries will be approximately six per day.
- 10.29 No significant traffic and transport impacts have been identified as a result of these lorry routes and volumes.

Worksite assessment (group 2)

10.30 One worksite is immediately accessed off St Mary's Road and is described below. The lorry route is shown on Map W17 (iv).

St Mary's Road bridge worksite south

10.31 There is one worksite for the works at St Mary's Road bridge. It is located southwest of the bridge within Springgate Field. An existing access on St Mary's Road will be used to access the proposed site.



Figure 10.2: St Mary's Road Bridge worksite south

10.32 St Mary's Road bridge will be demolished and reconstructed on the same alignment with adequate track clearance. The replacement bridge will be the same width as the existing. Prior to demolition a temporary footbridge / cycleway will be constructed offline, to the west of the existing alignment. The temporary footbridge will ensure no disruption to pedestrians and cyclists during the construction period. On completion of the road bridge the temporary footbridge / cycleway will be removed.

10.33 The road bridge will need to be closed to vehicular traffic for 10 weeks. During this time vehicles, including the local bus route, will be diverted over Middlegreen Road bridge, a diversion of approximately 800 m. This diversion will not constitute a significant impact to vehicle occupants or public transport users, as the diversion length is not sufficient to cause an impact. Road users will be notified prior to the junction with Langley Road and Middlegreen Road, as diverted traffic will use Middlegreen Road until it joins with St Mary's Road to the north. St Mary's Road bridge worksite south is shown in figure 10.2.

Lorry route assessment

10.34 Lorry access to the site will be from the A4 London Road, Langley Road and St Mary's Road. Direct access to the site will be from the existing access from St Mary's Road.

10.35 Peak construction activities will occur for a period of approximately 12 weeks, during which time the number of lorries generated by the worksite will be 12 per day. At other times the typical number of lorries will be approximately eight per day.

10.36 No significant traffic and transport impacts have been identified as a result of these lorry routes and volumes.

Worksite assessment (group 3)

10.37 One worksite is immediately accessed off Waterside Drive and is described below. The lorry route is shown on Maps W17 and W16 (iv).

Trenches Road bridge worksite north

10.38 There is one proposed worksite at Trenches Footbridge; Trenches bridge worksite north. This site is located to the northeast of the bridge in an area of open land shown in figure 10.3.

10.39 Access to the site will be via the industrial unit to the northeast of the bridge. A new access road will be constructed from the southwest corner of the industrial unit, along the tree line as shown above and into the southeast corner of the worksite.



Figure 10.3: Trenches footbridge worksite north

10.40 Complete demolition and reconstruction is proposed at Trenches Footbridge, located east of St Mary's Road bridge. The new bridge will be three metres wide in accordance with the

recommendations of Sustrans for well-used un-segregated shared use foot/cycle paths. The footbridge will be closed for a period of three weeks.

- 10.41 Pedestrians and cyclists will be diverted from the footbridge onto Maryside, south of the bridge to St Mary’s Road bridge. On the northern side of the Great Western Main Line, the diversion follows a towpath alongside the Grand Union Canal back to the footbridge. The diversion length and duration of bridge closure are both not sufficient to cause a significant impact.
- 10.42 It is recommended that during the above mentioned road closures that appropriate signage is used to alert pedestrians and cyclists to closures and possible diversion routes.
- 10.43 No significant traffic and transport impacts have been identified that are associated with this worksite.

Lorry route assessment

- 10.44 Lorry access to the site will be from the A4 London Road onto the B470 High Street and Waterside Drive.
- 10.45 During the whole construction period the number of lorries generated by the construction activities is expected to remain constant at an estimated rate of two lorries per day.
- 10.46 No significant traffic and transport impacts have been identified as a result of these lorry routes and volumes.

Mitigation and temporary impacts

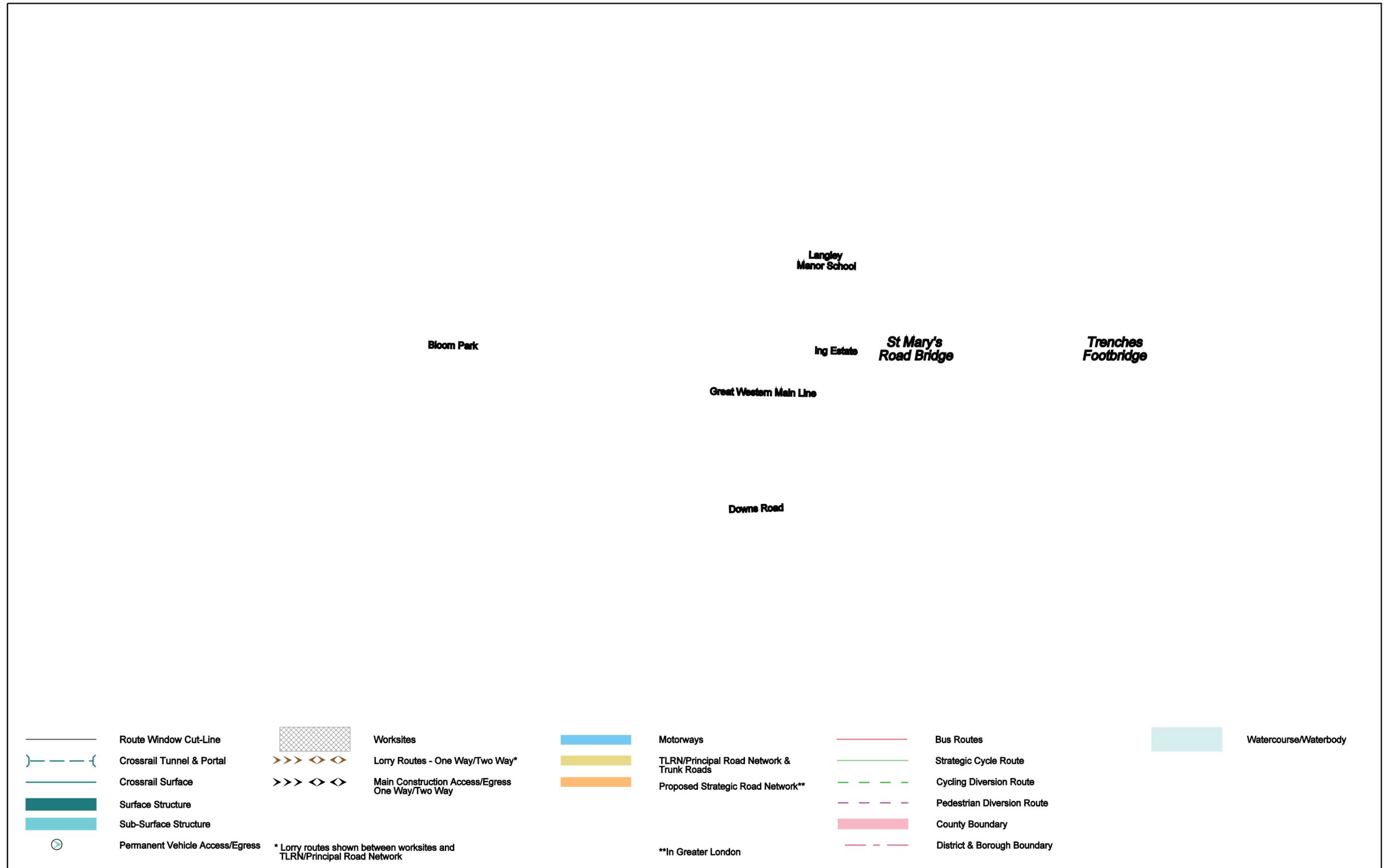
- 10.47 It is recommended that during road closures appropriate signage be used to alert all road users to closures and possible diversion routes to limit any impact on users during the construction period.
- 10.48 In summary, there are no significant temporary traffic and transport impacts to report in this route window.

Mitigation and permanent impacts

- 10.49 There are no permanent impacts in this route window.

Table 10.1: Route window W17 – Temporary impacts

Potential impact		Significance	Committed Mitigation	Residual Impact	
				Description	Significance
Diversion Assessment					
<u>Traffic Levels and Delays to Vehicle Occupants</u>					
CT1c	Middlegreen Road bridge closed for five weeks, vehicle diversion of 0.8 km	Significant	Divert vehicles over St Mary’s Road bridge	None	Not significant
	St Mary’s Road bridge closed for 10 weeks, vehicle diversion of 0.8 km	Significant	Divert vehicles over Middlegreen Road bridge	None	Not significant
<u>Vulnerable Road User Delay</u>					
CT5b CT5c	Middlegreen Road Bridge closed for five weeks, diversion of 0.5 km	Significant	Divert pedestrians & cyclists over St Mary’s Road bridge	Surveys have shown low demand	Not significant
	St Mary’s Road bridge closed for 10 weeks, diversion of 0.5 km	Significant	Provide a temporary footbridge / cycleway	None	Not significant
	Trenches Footbridge closed for three weeks, diversion of 0.5 km	Significant	Divert pedestrians & cyclists over St Mary’s Road bridge	None	Not significant
<u>Public Transport Delay</u>					
CT2b	St Mary’s Road bridge, closed for 10 weeks, diversion of 0.8 km	Significant	Divert one bus route over Middlegreen Road bridge	None	Not significant



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MIDDLEGREEN, ST MARY'S ROAD AND TRENCHES BRIDGES TRANSPORT AND ACCESS

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