

Title: Royal Hospital Road – Chelsea Bridge Road

Subject: VISSIM modelling outputs of the proposed all-round pedestrian stage

Date 31-07-2019

Attendance:

██████████ (RBKC)

Adam Greenland (TfL)

The purpose of the meeting was to discuss the output of the revised traffic signal modelling with the reallocation of green time.

Background:

The previous modelling had excesses queuing on Chelsea Bridge Road southbound during the PM peak, due to arrival rate of traffic at Chelsea Bridge Road / Grosvenor Road junction. It is worth noting the introduction of the pedestrian phase at the junction only had a moderate impact on delays, but the additional platoon of traffic being discharged towards Chelsea Bridge Road / Grosvenor Road junction demonstrated the potential for traffic to block back to Royal Hospital Road junction.

TfL have reallocated green time to Royal Hospital Road & Pimlico Road movements to minimise the amount of traffic heading southbound.

Modelling:

We reviewed the AM and PM peak models to see whether the traffic queued back past Franklins Row on Royal Hospital Road approach in the AM and Turks Row on Lower Sloane Street in the PM. Whilst there was a queue, it only appeared to queue back to these junctions on a couple of occasions. For the vast majority of the peaks, traffic cleared the junction during each green phase.

To further understand the impact of the pedestrian crossings TfL advised splitting the journey time between two points, these are as follows:

- Figure 1 - upstream of the junction on Lower Sloane Street to Chelsea Bridge Road
- Figure 2 - downstream of the junction on Chelsea Bridge Road to Grosvenor Road

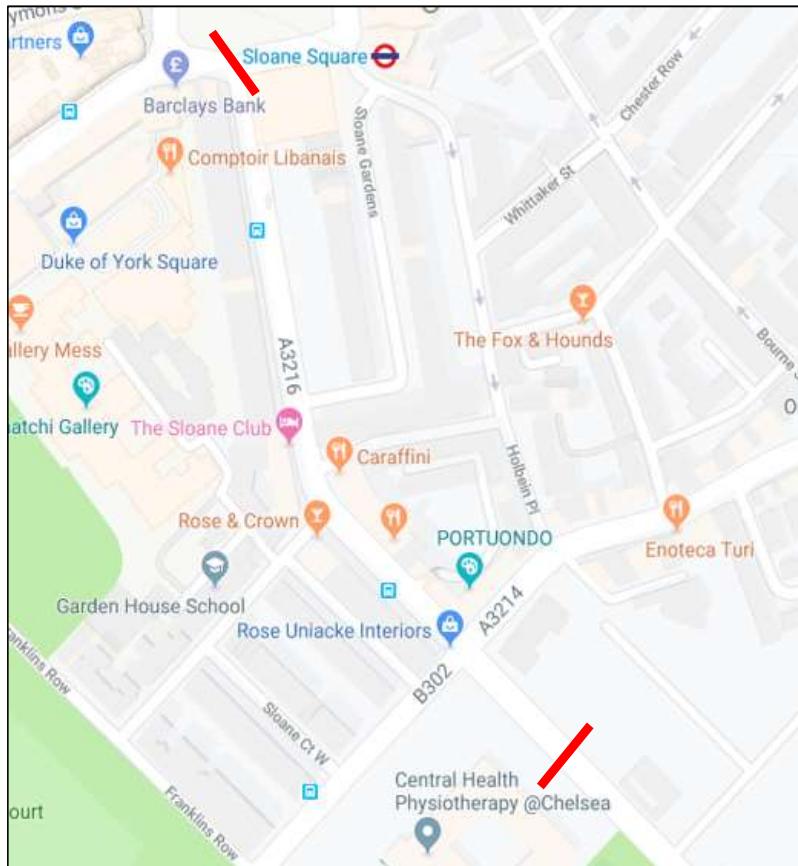


Figure 1 - The red marks are show where the journey times are measured to and from

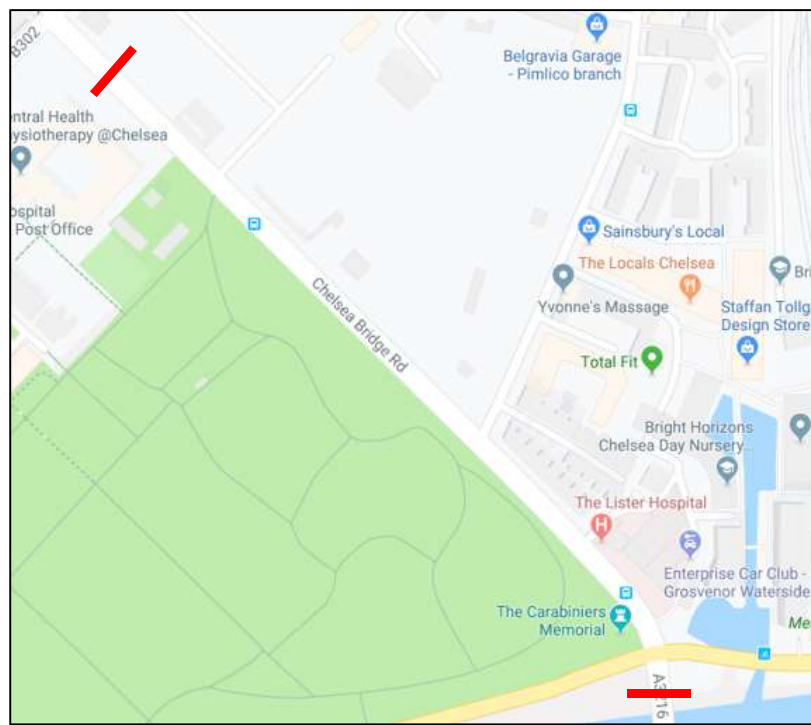


Figure 2 - The red marks are show where the journey times are measured to and from

## Results:

Figure	Period	Base (Secs)	Proposed (Secs)
1	AM	85	75
	PM	65	100
2	AM	81	85
	PM	370	470

From these results its realistic to conclude the AM period has no real impact apart from additional queuing on the approaches due to the addition of the all round pedestrian stage. The additional queuing did not affect the Franklins Row junction. The downstream journey time also isn't affected.

The PM peak show an increase of journey time delay by on average 35 seconds for traffic travelling between the red marks as shown on Figure 1. There is a 100 second delay for traffic travelling between the red marks as shown on Figure 2.

## Mitigation

From discussions with TfL there are additional proposed mitigation to ensure any delays to buses are kept to a minimum. These involve:

- Addition of Call Cancel facilities
- Addition of Bus Priority
- Removal of the central island shown in figure 3
- Introduction of a north bound only stage on Chelsea Bridge Road



Figure 3 - The central island proposed to be removed to assist right turning traffic.

## Next Steps

TfL would like to rerun the proposed model with the traffic island in figure 3 being removed to understand what additional mitigation this could provide. Spencer recommended reviewing the design layout to incorporate this, check the intergreens are correct and consider the introduction of early starts for cyclists to see what the additional delays would be. This is to be agreed with RBKC.