



# SQA-8569 - Scheme Impact Report (SIR)

Royal Hospital Road

June 2020



## Contents

Purpose	3
Scheme Overview	4
Scheme Summary	5
Engineering Services: Safety Checks	6
Model Integrity	7
Strategic Modelling	9
<i>Network Impact Assessment: Walking</i>	10
<i>Network Impact Assessment: Cycling</i>	11
<i>Network Impact Assessment: Bus Network - Mitigated Impacts</i>	12
<i>Network Impact Assessment: Freight &amp; Servicing</i>	13
<i>Network Impact Assessment: General Traffic</i>	14
<i>Network Impact Assessment: Taxis</i>	15
Final Summary	16
Additional Information	17
Contact Details	18



## Purpose

The Scheme Impact Report (SIR) is to be used to identify the impact of implementing a scheme on the network. This allows either the Promoter or Sponsor to provide all of the required information to the Network Impact Specialist Team (NIST) to make an informed decision on the project as part of the TMAN process.

The Scheme Impact Report (SIR) will be initiated and submitted by the scheme Sponsor / Promoter. Engineering Service Signals will complete the Signals Design Technical Assurance section. The SIR is then handed to Network Performance Delivery to inform on the integrity of the modelling and network impact. Once complete, the SIR is handed back to the sponsor/client who will then submit the scheme to NIST for approval.

A SIR must be completed for all schemes planned for implementation on the Transport for London Road Network (TLRN), Strategic Road Network (SRN) and on borough roads if bus operation is also impacted.

### Scheme types:

- Significant changes to large sections of the network
- Major schemes including an aggregation of schemes in an area
- Large schemes
- Small to medium schemes - localised impacts
- Low impact schemes

All of these scheme types require a SIR to assess the impact on the network.

## Reference documents

Document Number	Document Title
SQA-0448	Signal Design Review Sheet
SQA-0064	Design Standards for Signal Schemes in London
SQA-0184	Model Audit Process (MAP) Overview

## Document Control for Scheme Submission

Version	Date	Prepared by	Reviewed by	Approved by
1	22/04/2020	Adam Greenland	Amy Imeson	
2	09/06/2020	Jonathan Mills	Andy Rogers	Andy Rogers
2.1	19/06/2020	Adam Greenland	Andy Rogers	Andy Rogers



## Scheme Overview

Executive Summary		
<p>This scheme will introduce new pedestrian crossings at Chelsea Bridge Road/Royal Hospital Road early cycle release on Chelsea Bridge Road / Lower Sloane Street with very low impact on journey times. This is a result of the increase in cycle time to accommodate the new stages, and the conversion of a zebra crossing on Lower Sloane Street into a signalled crossing.</p>		
<p><b>Walking</b></p> <p>Pedestrians will benefit from new pedestrian crossings on all arms of the junction.</p>		<p>Positive</p>
<p><b>Cycling</b></p> <p>Cyclists will benefit from Early Release on Chelsea Bridge Road / Lower Sloane Street.</p>		<p>Positive</p>
<p><b>Bus Network</b></p> <p>The impact on bus journey times will be relatively minor, some journey times will increase but other journey times are expected to fall.</p>		<p>Positive &amp; Negative</p>
<p><b>Freight &amp; Servicing</b></p> <p>Freight impact is likely to be minimal, some journeys will be slightly quicker, other journeys slightly slower.</p>		<p>Positive &amp; Negative</p>
<p><b>General Traffic</b></p> <p>General traffic impact is likely to be relatively neutral, some journeys will be slightly slower, other journeys slightly faster.</p>		<p>Positive &amp; Negative</p>
<p><b>Taxis</b></p> <p>The impact on taxis is likely to be relatively neutral, some journeys will be slightly slower, other journeys slightly faster.</p>		<p>Positive &amp; Negative</p>

## RSPG

RSPG Version	Changes	Date
I		



## Scheme Summary

Name:	Royal Hospital Road		
Type of scheme:	Pedestrian & Cycle improvement scheme at Chelsea Bridge Rd and Royal Hospital Rd		
Main borough:	Kensington & Chelsea	Road Network:	Other
Location & scope of works:	Junction of Royal Hospital Rd with Chelsea Bridge Rd and Zebra Crossing to the north on Lower Sloane Street.		



Scheme objective (from Scheme Brief form):	<p>Addition of pedestrian facilities at the junction of Royal Hospital Road with Chelsea Bridge Road.</p> <p>Convert Zebra on Lower Sloane Street by Sloane Gardens to signalled pedestrian crossing</p>
Scheme justification & benefits (from Scheme Brief form):	The scheme delivers new safe pedestrian crossing at the junction of Royal Hospital Road with Chelsea Bridge Road and early cycle release on Chelsea Bridge Road & Lower Sloane Street
Changes to scheme brief	



## Engineering Services: Safety checks

Designs approved in principle:	Yes
<p>Stage 2 audit (SQA-8189 &amp; SQA-8448) signed/approved on the 18/02/2020 by TCE            Timings approved in the SQA-8448, buildability &amp; maintainability review approved as part of the SQA-8189.            Approved drawing reference as per signing of this SIR is "PRO/12/000057/P07"</p>	

Safety review (including safety timings):	Yes
Buildability Review:	Yes
Maintainability Review:	Yes

Comments or additional supplementary information:
N/A

*Signal Design Technical Assurance of design drawings listed in Appendix.*

*This Assurance constitutes "Approval in Principle". Full Engineering Services Technical Approval of the Signals Design will be given in detailed design.*

*Changes to layout or facilities following public consultation or in detailed design may affect the timings, buildability, maintainability and safety assessment of the design(s).*

*Prohibited movements require Traffic Management Orders prior to implementation.*



## Model Integrity

Modelling in line with MAP standards:							
LMAP	Yes	TMAP	N/A	VMAP	Yes	AMAP	N/A

Date of traffic flow data:
October 13th 2015

Traffic peak times modelled:			
AM peak	Off peak	PM peak	Weekend
0800-0900	n/a	1730-1830	n/a

Strategic modelling undertaken:				
ONE	No	Other	No	<i>If "Yes", please specify here</i>

Scenarios modelled:				
Base		Future Base	FY with Com Dev	Do Something Y with Com Dev +schem
Other	FY (Future Year) scenario developed in anticipation of the completion of the following committed developments: Ebury Bridge Estate, Ebury Bridge Centre, Chelsea Barracks Development. FY scenarios do not refer to a specific year, rather the completion of anticipated nearby developments (c.2020-2022)			

Feasibility modelling undertaken in Linsig:	
No	<i>If "Yes", please specify here</i>

Model Library Links:

## Modelling vs. Reality (MvR)

How will the scheme be assessed for modelling vs. reality?			
Degree of saturation	n/a	Journey times (general traffic)	Yes
Queue lengths	n/a	Journey times (buses)	Yes
Traffic counts	n/a		

Has base modelling vs. reality data been collected, or is data available?	
	<i>If "Yes", please specify here</i>

Estimated dates for:			
Base modelling vs. reality assessment	TBC	Post-implementation MvR assessment	TBC



## Key modelling assumptions/exceptions

Future base and proposed flows are based on assumptions about nearby developments made in the original modelling exercise in 2016.



## Strategic Modelling

Has Strategic Modelling been undertaken for this scheme?	No
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Network Impact Assessment:

**Walking**



Positive

This scheme introduces a new all-round pedestrian stage at the junction of Chelsea Bridge Road/Royal Hospital Road/Pimlico Road/Lower Sloane Street. Currently there are no signalled crossing at this junction. The scheme also incorporates the conversion of the Zebra crossing on Lower Sloane Street into a signalled pedestrian crossing.

Region/Area	Cycle Time (s)					
	AM Peak		Off-peak		PM Peak	
	Base	DS	Base	DS	Base	DS
	64	104	n/a	n/a	60	96

Average pedestrian maximum wait times and journey times

**AM Peak**

Location	Average ped max wait times (s)		
	Base Model	Do Something	Difference
Chelsea Bridge Road/Royal Hospital Road/Pimlico Road/Lower Sloane Street	N/A	98	N/A

Average pedestrian maximum wait times and journey times

**PM Peak**

Location	Average ped max wait times (s)		
	Base Model	Do Something	Difference
Chelsea Bridge Road/Royal Hospital Road/Pimlico Road/Lower Sloane Street	N/A	90	N/A



Network Impact Assessment:

Cycling



Positive

This scheme is not specifically a cycling scheme, however, the scheme does retain the provision of Advance Cycle Stop Lines at the junction of Royal Hospital Road/Chelsea Bridge Road/Pimlico Road/Lower Sloane Street. In addition, Cycle Early Start has been introduced on two arms of the junction - Chelsea Bridge Road Northbound and Lower Sloane Street southbound.



Network Impact Assessment:

## Bus Network - Mitigated Impacts



Positive & Negative

The impact of the scheme on bus journey times is mixed. In the AM peak, some bus routes through the junction will take slightly longer than before. However, other journeys are expected to be slightly quicker. This is partly due to the conversion of the zebra crossing in to a signalled crossing. This improves journey times for all vehicles, including buses, on Lower Sloane Street. Journey times are also slightly improved due to the removal of a traffic island on the south side of the junction of Chelsea Bridge Road/Royal Hospital Road. In the PM peak, all journey times are expected to increase slightly, this is due to the impact of the new pedestrian stage. Southbound journey times are already elongated due to exit blocking to the South of the junction which will not change significantly as a result of the scheme. Overall the impact of the scheme is relatively neutral.

### AM Peak

Route description	Direction	Frequency (bus/hr)	JT Time Bands (mins)		
			Base Model	Do Something	Difference
Route 11/211 Lower Sloane Street/Pimlico Road	East	15	3-5 mins	3-5 mins	-(0-30) secs
Route 11/211 Pimlico Road/Lower Sloane Street	West	25	3-5 mins	3-5 mins	-(0-30) secs
Route 170 Royal Hospital Road/Pimlico Road	East	6	5-10 mins	5-10 mins	0-30 secs
Route 170 Pimlico Road/Royal Hospital Road	West	7	3-5 mins	3-5 mins	30-60 secs
Route 137/452 Chelsea Bridge Road/Lower Sloane	North	26	5-10 mins	3-5 mins	-(1-2) mins
Route 137/452 Lower Sloane St/Chelsea Bridge Rd	South	21	3-5 mins	3-5 mins	0-30 secs
Route 360 Chelsea Bridge Road/Lower Sloane St	North	5	5-10 mins	3-5 mins	-(1-2) mins
Route 360 Lower Sloane St/Chelsea Bridge Road	South	5	3-5 mins	3-5 mins	-(0-30) secs

### PM Peak

Route description	Direction	Frequency (bus/hr)	JT Time Bands (mins)		
			Base Model	Do Something	Difference
Route 11/211 Lower Sloane Street/Pimlico Road	East	16	3-5 mins	3-5 mins	0-30 secs
Route 11/211 Pimlico Road/Lower Sloane Street	West	24	3-5 mins	3-5 mins	0-30 secs
Route 170 Royal Hospital Road/Pimlico Road	East	7	3-5 mins	3-5 mins	0-30 secs
Route 170 Pimlico Road/Royal Hospital Road	West	7	3-5 mins	3-5 mins	0-30 secs
Route 137/452 Chelsea Bridge Road/Lower Sloane	North	22	3-5 mins	3-5 mins	0-30 secs
Route 137/452 Lower Sloane St/Chelsea Bridge Rd	South	17	10-15 mins	10-15 mins	0-30 secs
Route 360 Chelsea Bridge Road/Lower Sloane St	North	5	3-5 mins	3-5 mins	0-30 secs
Route 360 Lower Sloane St/Chelsea Bridge Road	South	5	10-15 mins	10-15 mins	0-30 secs



Network Impact Assessment:

## Freight & Servicing



Positive &  
Negative

The impact of the scheme on freight movement is relatively neutral, being similar to the impact on general traffic - see next section.



Network Impact Assessment:

**General Traffic**



Positive & Negative

The impact of the scheme on journey times is mixed. In the AM peak, some routes through the junction will take slightly longer than before. However, other journeys are expected to be slightly quicker. This is partly due to the conversion of the zebra crossing in to a signalled crossing. This improves journey times for all vehicles, including buses, on Lower Sloane Street. Journey times are also slightly improved due to the removal of a traffic island on the south side of the junction of Chelsea Bridge Road/Royal Hospital Road. In the PM peak, all journey times are expected to increase slightly, this is due to the impact of the new pedestrian stage. Southbound journey times are already elongated due to exit blocking to the South of the junction which will not change significantly as a result of the scheme. Overall the impact of the scheme is relatively neutral.

AM Peak				
Route description	Direction	JT Time Bands (mins)		
		Base Model	Do Something	Difference
Lower Sloane Street/Chelsea Bridge Road	South	2-3 mins	2-3 mins	-(0-30) secs
Chelsea Bridge Road/Lower Sloane Street	North	5-10 mins	3-5 mins	-(1-2) mins
Pimlico Road/Royal Hospital Road	West	2-3 mins	3-5 mins	30-60 secs
Royal Hospital Road/Pimlico Road	East	3-5 mins	3-5 mins	-(0-30) secs

PM Peak				
Route description	Direction	JT Time Bands (mins)		
		Base Model	Do Something	Difference
Lower Sloane Street/Chelsea Bridge Road	South	10-15 mins	10-15 mins	0-30 secs
Chelsea Bridge Road/Lower Sloane Street	North	3-5 mins	3-5 mins	0-30 secs
Pimlico Road/Royal Hospital Road	West	2-3 mins	3-5 mins	30-60 secs
Royal Hospital Road/Pimlico Road	East	2-3 mins	2-3 mins	0-30 secs



Network Impact Assessment:

## Taxis



Positive &  
Negative

The impact of the scheme is relatively neutral, being similar to the impact on general traffic - see previous section.



## Final Summary

					
Walking	Cycling	Bus Network	Freight/Service	General Traffic	Taxis
Positive	Positive	Positive & Negative	Positive & Negative	Positive & Negative	Positive & Negative

## Healthy Streets Criteria

Have Healthy Streets Criteria objectives been met?	Partially met



## Additional Information

List of additional documents (to be included with SIR submission or links provided):

Document title	Date last updated
PRO/12/000057/P07	20/02/2020

### File Information:

File created by (oneLondon user name):	AdamGreenland
Date/time Excel copy was created:	22/04/2020 14:42
Date/time PDF copy was created:	19/06/2020 12:43

### Additional comments:

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PRO/12/000057/P07

*This document was created using SIR Files Generator v1.5*



## Contact Details

Scheme Sponsor		Date Signed
Sponsor (Client):	Ian Davies	12/06/2020
Promoter (Design Consultant):	██████████	12/06/2020

Engineering Services (ES)		Date Signed
ES Traffic Control Engineer:	Rosemary Wilkins (Engineer) (completed by JMills on behalf of Rosemary Wilkins - 09/06/2020)	09/06/2020
ES Principal Traffic Control Engineer:	Jonathan Mills (Senior Engineer TCE)	09/06/2020

Network Performance - Delivery (NPD)		Date Signed
NPD Network Manager:	Adam Greenland	19/06/2020
NPD Area Performance Manager:	Andy Rogers	19/06/2020

Network Impact Specialist Team (NIST)		Date Signed
Network Impact Assessment Engineer:	N/A	
Network Impact Assessment Manager:	N/A	

ODE		Date Signed
Outcomes Design Engineer:	N/A	

Modelling		Date Signed
Modelling Resource:	N/A	

