

A10 Stoke Newington Gyratory

Gyratory Removal (Changes Following Consultation Feedback)

Stage 1 Road Safety Audit

Ref: 3201.01/004/A10/TLRN/2019

Prepared for:

TfL Strategy and Network Development

By:

Road Safety Audit

TfL Engineering Services - Highways Engineering Team

Prepared by: Chris Gooch, Audit Team Leader
Checked by: Andrew Coventry, Audit Team Member
Approved by: Andrew Coventry

Version	Status	Date
A	Audit report issued to Client	24/07/2019

1.0 INTRODUCTION

1.1 Commission

- 1.1.1 This report results from a Stage 1 Road Safety Audit carried out on the A10 Stoke Newington Gyratory, Gyratory Removal (changes following consultation feedback) proposals.
- 1.1.2 The Audit was undertaken by TfL Road Safety Audit in accordance with the Audit Brief issued by the Client Organisation on 9th July 2019. It took place at the Palestra offices of TfL on 22nd July 2019 and comprised an examination of the documents provided as listed in Appendix A, plus a visit to the site of the proposed scheme.
- 1.1.3 The visit to the site of the proposed scheme was made on 22nd July 2019. During the site visit the weather was sunny and the existing road surface was dry.

1.2 Terms of Reference

- 1.2.1 The Terms of Reference of this Audit are as described in TfL Procedure SQA-0170 dated May 2014. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and how it impacts on all road users and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit. An absence of comment relating to specific road users / modes in Section 3 of this report does not imply that they have not been considered; instead the Audit Team feels they are not adversely affected by the proposed changes.
- 1.2.2 This Safety Audit is not intended to identify pre-existing hazards which remain unchanged due to the proposals; hence they will not be raised in Section 3 of this report as they fall outside the remit of Road Safety Audit in general as specified in the procedure SQA-0170 dated May 2014. Safety issues identified during the Audit and site visit that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in Section 4 of this report.
- 1.2.3 Nothing in this Audit should be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the Designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.
- 1.2.4 In accordance with TfL Procedure SQA-0170 dated May 2014, this Audit has a maximum shelf life of 2 years. If the scheme does not progress to the next stage in its development within this period, then the scheme should be re-audited.
- 1.2.5 Unless general to the scheme, all comments and recommendations are referenced to the detailed design drawings and the locations have been indicated on the plan located in Appendix B.
- 1.2.6 It is the responsibility of the Design Organisation to complete the Designer's response section of this Audit report. Where applicable and necessary it is the responsibility of the Client Organisation to complete the Client comment section of this Audit report. Signatures from both the Design Organisation and Client Organisation must be added within Section 5 of this Audit report. A copy of which must be returned to the Audit Team.

1.3 Main Parties to the Audit

1.3.1 Client Organisation

Client contact details: Tracey Smith – TfL Strategy and Network Development

1.3.2 Design Organisation

Design contact details: David Field – TfL Engineering

1.3.3 Audit Team

Audit Team Leader: Chris Gooch – TfL Road Safety Audit

Audit Team Member: Andrew Coventry – TfL Road Safety Audit

Audit Team Observer: None present

1.3.4 Other Specialist Advisors

Specialist Advisor Details: None present

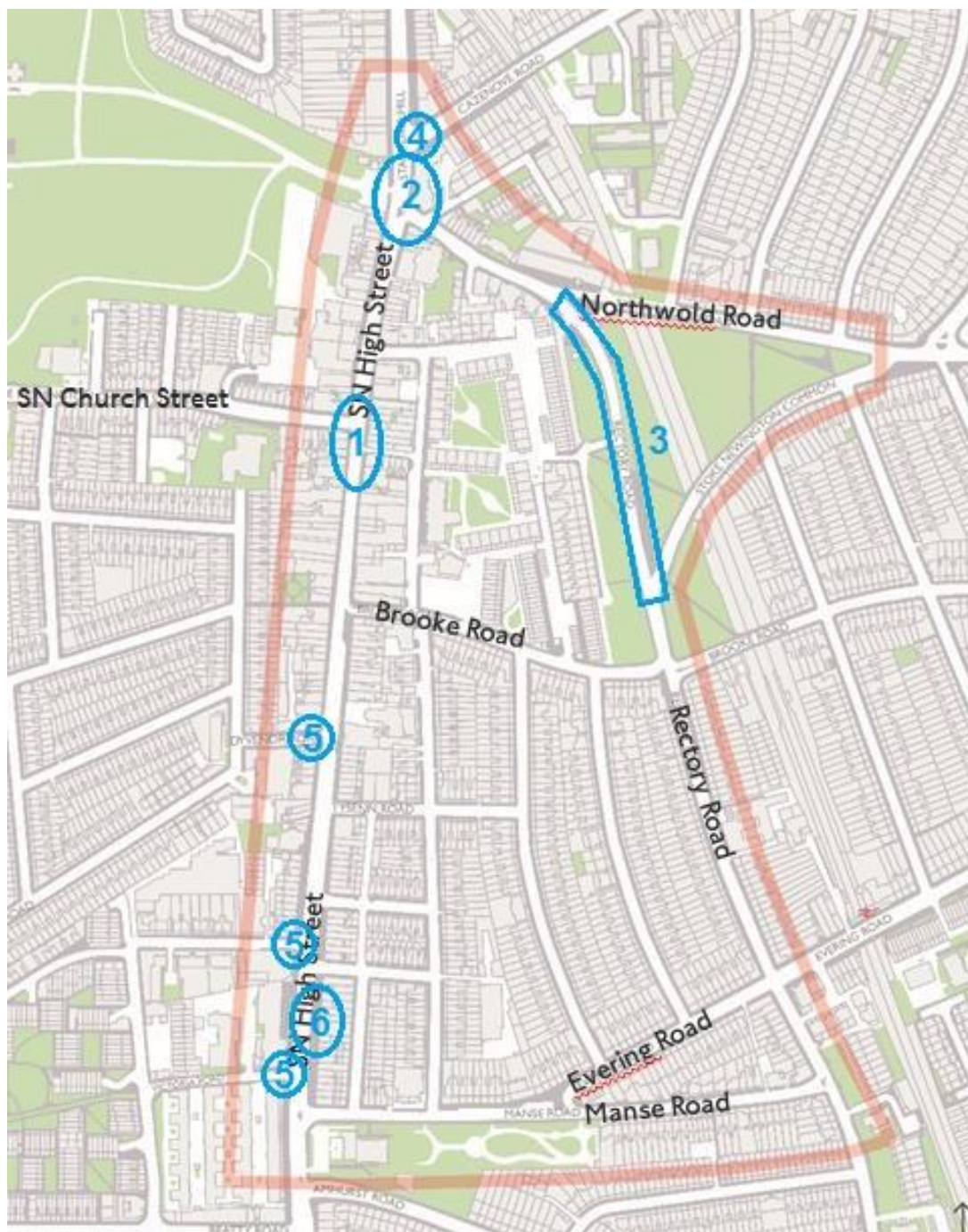
1.4 Purpose of the Scheme

1.4.1 The purpose of the scheme is:

TfL Road Safety Audit provided a Stage 1 Road Safety Audit for the feasibility design proposals aimed at removing the existing one way (clockwise) gyratory predominantly consisting of the A10 Stoke Newington High Street, Rectory Road, Northwold Road, Evering Road and Manse Road. Changes were made based on the previous RSA.

However, further changes have been made to the scheme following consultation feedback. A further Stage 1 Road Safety Audit for these changes only is required, as highlighted on the map and text below.

A map showing the overall scheme extents (red) and the individual areas to be audited (blue) is detailed below:



The changes to be included in the additional safety audit are as follows:

- 1) Stoke Newington High Street junction with Stoke Newington Church Street (shown on sheet 0007) - The northbound stepped cycle track will now be fully segregated on the approach to junction. Cyclists are now to be separately signalled from northbound traffic, which removes the risk of left hook collisions.
- 2) Stamford Hill junction with Northwold Road (shown on sheet 0008) – Southbound cyclists will now be segregated from traffic when using the stepped track/shared footway. Cycle signals are also provided for cyclists proceeding down Stoke Newington High Street.

- 3) Rectory Road, between Northwold Road and Stoke Newington Common (shown on sheets 0009, 0010 & 0013) – Overrun areas using imprint surfacing adjacent to the kerbs replace the previously proposed flush level central median strip. Cyclists will still be encouraged to take the primary position by cycle logo markings positioned centrally in both lanes.
- 4) Stamford Hill junction with Cazenove Road (shown on sheet 0008) - Introduce a new raised entry treatment to reduce speeds for both vehicles turning into Cazenove Road, and on the approach to the junction from the east. Reduce the overall crossing distance by building out the northern footway.
- 5) Stoke Newington High Street junctions with Victorian Road, Victorian Grove and Dynevor Road (shown on sheets 0002, 0003 & 0004) - Flush raised entry treatments replace the previously proposed continuous footways.
- 6) Stoke Newington High Street, between Batley Road and Evering Road (shown on sheet 0003) - Introduce an additional new southbound bus stop opposite the police station.

Note: Traffic signing and street furniture is not included at this stage of feasibility design*.

*Taken directly from the Audit Brief.

1.5 Special Considerations.

- 1.5.1 This Road Safety Audit has only considered the proposals one to six outlined in the Audit Brief. The Audit Team has not reviewed or commented on other design features shown on the drawings beyond these specific proposals.
- 1.5.2 This Road Safety Audit should be read in conjunction with report ref. 3201/004/A10/TLRN/2018

2.0 ITEMS RAISED IN PREVIOUS ROAD SAFETY AUDITS

The original proposals were subject to a Stage 1 Road Safety Audit carried out in August 2018 by TfL Road Safety Audit (ref: 3201/004/A10/TLRN/2018). Only specific changes made to the scheme following consultation feedback has been assessed as part of this new Stage 1 Road Safety Audit (July 2019). Therefore, the original Stage 1 Safety Audit has not been reviewed / commented further.

3.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

This section should be read in conjunction with Paragraphs 1.2.1, 1.2.2 and 1.2.3 of this report.

3.1 STOKE NEWINGTON HIGH STREET JUNCTION WITH STOKE NEWINGTON CHURCH STREET (SHEET 0007) - THE NORTHBOUND STEPPED CYCLE TRACK WILL NOW BE FULLY SEGREGATED ON THE APPROACH TO JUNCTION.

3.1.1 PROBLEM

Location: A – Stoke Newington High Street junction with Stoke Newington Church Street, Stage 1 of the proposed signal method of control.

Summary: Proposed method of control whereby southbound traffic can turn right across the path of northbound cyclists may result in hook type collisions.

Stage 1 of the proposed method of control shows northbound cyclists given a green signal at the same time as southbound traffic on Stoke Newington High Street who can continue ahead or turn right. Northbound traffic in the general traffic lane is held on a red signal to remove the potential left hook type conflict.

Southbound road users turning right into Stoke Newington Church Street may see northbound traffic being held, assume their exit is clear / unopposed, and not appreciate that northbound cyclists have been given a green signal. In addition, queuing northbound traffic is likely to mask visibility to approaching northbound cyclists for road users turning right. Southbound road users may fail to see or appreciate that they have to give way to northbound cyclists and turn right across their path. This may result in right-hook type collisions.

RECOMMENDATION

It is recommended that the signal method of control is adjusted so that southbound traffic does not turn right across the path of northbound cyclists. This could be achieved by providing a separate stage for cyclists.

Design Organisation Response	Accepted / Part Accepted / Rejected
Southbound traffic turning right is limited to cycles and 2 No. bus routes (393, 476) only, which are both low frequency. As the southbound traffic and northbound cycle approaches receive a green signal concurrently, right turning buses will be aware of cycles moving at the same time, with a clear view of the junction.	
In regard to visibility of northbound cyclists, with a vehicle at the northbound stop line there is a visibility distance of approximately 25-30m from an approaching cyclist to a right turning vehicle (and vice versa). This gives a clear view of any approaching cyclists.	
Due to capacity constraints and the requirement to have a neutral or positive effect on bus journey times, a separate cycle stage is not feasible.	
Client Organisation Comments	
Rejected - agree with designer, southbound traffic is limited to 2 low frequency buses	

3.2 STAMFORD HILL JUNCTION WITH NORTHWOLD ROAD (SHEET 0008) – SOUTHBOUND CYCLISTS WILL NOW BE SEGREGATED FROM TRAFFIC WHEN USING THE STEPPED TRACK/SHARED FOOTWAY. CYCLE SIGNALS ARE ALSO PROVIDED FOR CYCLISTS PROCEEDING DOWN STOKE NEWINGTON HIGH STREET.

3.2.1 PROBLEM

Location: B – Stamford Hill southbound towards Stoke Newington High Street, stepped track.

Summary: Proposed method of control whereby the southbound ahead only bus lane is given a green signal at the same time as the southbound stepped track re-joins the carriageway may result in side swipe type collisions on the exit from the junction.

Stage 1 of the proposed Method of Control shows the southbound ahead only bus lane given a green signal at the same time as the southbound stepped track that re-joins the carriageway. The alignment of the bus lane and the cycle track on the southern side of the junction may result in buses squeezing cyclists as they enter Stoke Newington High Street (it is appreciated that the stop line of the stepped track is located further south than that of the bus lane, however southbound cyclists approaching the stop line towards the end of the phase may be at risk). Buses will also be seeking to move to the nearside to access the bus stop on the exit from the junction, further compounding the potential issue. This may result in side swipe type collisions between cyclists and buses.

RECOMMENDATION

It is recommended that the signal method of control is adjusted so that southbound cyclists do not run at the same time as southbound buses. This could be achieved by providing a separate stage for cyclists.

Design Organisation Response	Accepted / Part Accepted / Rejected
<p>The kerb alignment on the northeast footway will deflect buses into the marked bus lane entry, which has a width of 3m, with the overall width between the central traffic island and eastern footway being 4.5m. Thus is the minimum recommended width that will accommodate a bus and cycle together. The inclusion of 'elephant footprint' markings to denote the cycle crossing lane also highlights the presence of cyclists and also directs buses away from the cycle lane. While we do not have sufficient space to provide a cycle facility on the southbound exit eastern footway, the addition of coloured surfacing to highlight the cycle exit lane is to be considered.</p> <p>Due to capacity constraints and the requirement to have a neutral or positive effect on bus journey times, a separate cycle stage is not feasible.</p> <p>The stop on the High Street southbound exit will serve 3 No. bus routes (76, 149, 243). We do not have sufficient space to provide an on-footway facility, such as a bus stop bypass, but will provide additional diag. 1057 cycle logo markings at the corners of the bus stop cage marking. This will provide awareness to bus drivers that cyclists are likely to overtake stationary buses. This is the standard design for this situation.</p>	
Client Organisation Comments	
Part-accepted agree with designer	

3.3 RECTORY ROAD, BETWEEN NORTHWOLD ROAD AND STOKE NEWINGTON COMMON (SHEETS 0009, 0010 & 0013) – OVERRUN AREAS USING IMPRINT SURFACING ADJACENT TO THE KERBS REPLACE THE PREVIOUSLY PROPOSED FLUSH LEVEL CENTRAL MEDIAN STRIP. CYCLISTS WILL STILL BE ENCOURAGED TO TAKE THE PRIMARY POSITION BY CYCLE LOGO MARKINGS POSITIONED CENTRALLY IN BOTH LANES.

3.3.1 PROBLEM

Location: C – Rectory Road, variable width imprint surface overrun strip adjacent to kerbs.

Summary: The width and layout of the imprint may give the impression that the area is a cycle lane. Cyclists may adopt a secondary riding position. There may not be suitable width for vehicles to safely pass a cyclist adopting a secondary position. This may result in shunt and / or side swipe type collisions.

A variable width imprint surface overrun strip adjacent to the kerb is proposed to visually narrow the carriageway width to 6.0m to encourage cyclist to adopt a primary riding position. The width and layout of the imprint may give the impression that the area is a cycle lane and therefore cyclists may not adopt the primary position as intended. The speed and volume of traffic may also discourage cyclists from adopting a primary position.

Should cyclist adopt a secondary riding position within the imprint area, there may not be suitable width for vehicles to safely pass a cyclist. A potential for shunt and / or side swipe type collisions between vehicles and cyclists may exist as a result.

RECOMMENDATION

It is recommended that any narrowing of the carriageway using an imprint type material does not give the impression that it can be / should be used by cyclists. It may be beneficial to provide physical measures to reduce the carriageway to the required width.

Design Organisation Response	Accepted / Part Accepted / Rejected
The Imprint surfacing will have a colour and pattern that provides a significant contrast to the asphalt carriageway surfacing, therefore highlighting to both cyclists and motor vehicle drivers/riders that this is not a dedicated space for cyclists.	
Additionally, an alternative design is being considered. This comprises 3.2m wide opposing traffic lanes, with the western kerb built out to increase the footway width.	
Client Organisation Comments	
Part accepted – Imprint is not a dedicated cycle facility, but a low cost method to give the impression of carriageway narrowing. As such double red lines will be marked to the outside of the imprint to highlight main carriageway.	

**3.4 STAMFORD HILL JUNCTION WITH CAZENOVE ROAD (SHEET 0008) -
INTRODUCE A NEW RAISED ENTRY TREATMENT TO REDUCE SPEEDS
FOR BOTH VEHICLES TURNING INTO CAZENOVE ROAD, AND ON THE
APPROACH TO THE JUNCTION FROM THE EAST. REDUCE THE
OVERALL CROSSING DISTANCE BY BUILDING OUT THE NORTHERN
FOOTWAY.**

3.4.1 PROBLEM

Location: D – Stamford Hill left turn into Cazenove Road.

Summary: The proposed footway buildout may impact on the swept path of vehicles turning left into Cazenove Road. Vehicles may overrun the new kerb buildout. This could result in collisions with pedestrians on the footway.

It is proposed to build out the northern footway of Cazenove Road to reduce the crossing distance for pedestrians. To achieve this, the existing junction corner radius has been reduced. Vehicles turning left into Cazenove Road may have difficulty completing their manoeuvre within the confines of the carriageway and may overrun the new kerb buildout. This could result in collisions with pedestrians on the footway.

RECOMMENDATION

It is recommended that swept path analysis is undertaken to demonstrate that all expected vehicle types can complete their manoeuvre without overrunning the footway buildout. It may be necessary to adjust the proposed kerb line and / or provide a physical feature such as a bollard.

Design Organisation Response	Accepted / Part Accepted / Rejected
The southbound carriageway features a nearside bus lane, so all larger vehicles such as refuse and goods vehicles will turn left into Cazenove Road from the offside lane. This allows a much tighter radius on the corner of the northeast footway and the proposed buildout to be implemented.	
A swept path analysis of the new layout has been carried out for all movements on the junction.	
Client Organisation Comments	
Part-accepted agree with designer	

3.5 STOKE NEWINGTON HIGH STREET JUNCTIONS WITH VICTORIAN ROAD, VICTORIAN GROVE AND DYNEVOR ROAD (SHEETS 0002, 0003 & 0004) - FLUSH RAISED ENTRY TREATMENTS REPLACE THE PREVIOUSLY PROPOSED CONTINUOUS FOOTWAYS.

3.5.1 PROBLEM

Location: E – Victorian Grove and Victorian Road junction with Stoke Newington High Street, stepped cycle track across the junctions.

Summary: Road users turning left into the side road may fail to appreciate the presence of cyclists on the stepped track. This may result in hook type conflicts.

The stepped track will be continued across the Victorian Grove and Victorian Road junctions. Cyclists on the stepped track will be remote from general traffic on the approach to the junction with little / no interaction beforehand. There is concern that road users turning left from Stoke Newington High Street may fail to appreciate the presence of cyclists on the stepped track, or understand that cyclists have priority over turning traffic. This could result in left-hook type collisions.

RECOMMENDATION

It is recommended that the junctions are made left out only to remove the potential conflict. If this cannot be achieved then it is recommended that further measures are provided to highlight the cycle track and the need to give way. This could include road markings and coloured surfacing.

Design Organisation Response	Accepted / Part Accepted / Rejected
<p>The design team has previously investigated restricting turning manoeuvres at both junctions. However it is not practical to make all roads joining onto the high street exit only. There is a Police Station located on Victoria Road which requires quick vehicular access to and from Stoke Newington High Street during emergency calls, making the conversion of Victoria Road to one-way out impractical. Furthermore, the borough do not support new one-way streets, meaning that the existing two-way operation has been retained for Victoria Grove.</p> <p>The cycle track is +65mm above the adjacent carriageway, with a ramp down at the side road to be flush with the carriageway. Both the cycle track and carriageway are to be surfaced in standard black asphalt. The cycle track effectively operates as a mandatory cycle lane, which includes diag. 1057 cycle logo markings and diag. 1004 lane markings across the junction with the side road as specified in TSRGD 2016. Both of these road markings are proposed in these locations.</p>	
Client Organisation Comments	
<p>Rejected – there will be no right turn for general traffic from side roads as the southbound lane on Stoke Newington High St will be a bus lane for buses and cycles only. Only emergency vehicles may use this as access.</p>	

3.6 STOKE NEWINGTON HIGH STREET, BETWEEN BATLEY ROAD AND EVERING ROAD (SHEET 0003) - INTRODUCE AN ADDITIONAL NEW SOUTHBOUND BUS STOP OPPOSITE THE POLICE STATION.

The Audit Team has not identified any features of this specific proposal that could be removed or modified in order to improve the road safety of the measures.

End of list of problems identified and recommendations offered in this Stage 1 Road Safety Audit

4.0 ISSUES IDENTIFIED DURING THE STAGE 1 ROAD SAFETY AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

Safety issues identified during the audit and site inspection that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in this section. It is to be understood that, in raising these issues, the Audit Team in no way warrants that a full review of the highway environment has been undertaken beyond that necessary to undertake the Audit as commissioned.

4.1 ISSUE

Location: 1 – Stoke Newington Church Street, right turn onto Stoke Newington High Street.

Reason considered to be outside the Terms of Reference: Item for consideration rather than a defined road safety concern.

The proposed signal Method of Control includes an internal stop line for cyclists turning right onto Stoke Newington High Street from Stoke Newington Church Street. In Stage 3 of the proposed Method of Control, a red signal is shown at the stop line, however the opposing pedestrian crossing is not running on a green person (rather an all red stage is provided in Stage 4). It is unclear whether this is intentional. It may be necessary to adjust the proposed Method of Control at detailed design.

Design Organisation Response	Accepted / Part Accepted / Rejected
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Client Organisation Comments	
[Leave blank for Client Organisation's Comments]	

5.0 SIGNATURES AND SIGN-OFF

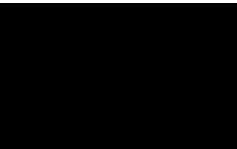
5.1 AUDIT TEAM STATEMENT

We certify that we have examined the drawings and documents listed in Appendix A. to this Safety Audit report. The Road Safety Audit has been carried out in accordance with TfL Procedure SQA-0170 dated May 2014, with the sole purpose of identifying any feature that could be removed or modified in order to improve the safety of the measures. The problems identified have been noted in this report together with associated suggestions for safety improvements that we recommend should be studied for implementation.

No one on the Audit Team has been involved with the design of the measures.

AUDIT TEAM LEADER:

Name: Chris Gooch
BSc. (Hons), CMILT, MCIHT, MSoRSA

Signed: 

Date: 24/07/2019

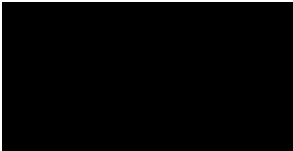
Organisation: Transport for London, Road Safety Audit
Engineering Services, Highways Engineering Team

Address: 3rd Floor Palestra, 197 Blackfriars Road, London, SE1 8NJ

Contact: 

AUDIT TEAM MEMBER:

Name: Andrew Coventry
BEng (Hons), CMILT, MCIHT, MSoRSA,

Signed: 

Date: 24/07/2019

Organisation: Transport for London, Road Safety Audit
Engineering Services, Highways Engineering Team

Address: 3rd Floor Palestra, 197 Blackfriars Road, London, SE1 8NJ

Contact: 

5.2 DESIGN TEAM STATEMENT

In accordance with SQA-0170 dated May 2014, I certify that I have reviewed the items raised in this Stage 1 Safety Audit report. I have given due consideration to each issue raised and have stated my proposed course of action for each in this report. I seek the Client Organisation's endorsement of my proposals.

Name: DAVID FIELD
Position: Design Engineer
Organisation: TfL Engineering, Highways & Traffic

Signed:  **Dated:** 12/08/2019

5.3 CLIENT ORGANISATION STATEMENT

I accept these proposals by the Design Organisation.

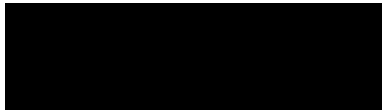
Name: Tracey Smith
Position: Principal Sponsor
Organisation: TfL, IDP

Signed:  **Dated:** 12/08/2019

5.4 SECONDARY CLIENT ORGANISATION STATEMENT (where appropriate)

I accept these proposals by the Design Organisation.

Name: David McKenna
Position: Lead Sponsor
Organisation: TfL IDP Network Sponsorship

Signed:  **Dated:** 09/06/2020

APPENDIX A

Documents Forming the Audit Brief

DRAWING NUMBER

ST-PJ-472C-RSM-FEA-04-DR-TE-01-0002, 0003, 0004, 0007, 0008, 0009, 0010 and 0013 Rev. P00.2

DRAWING TITLE

A10 Stoke Newington Gyratory Feasibility Design TfL –Option 1

DOCUMENTS

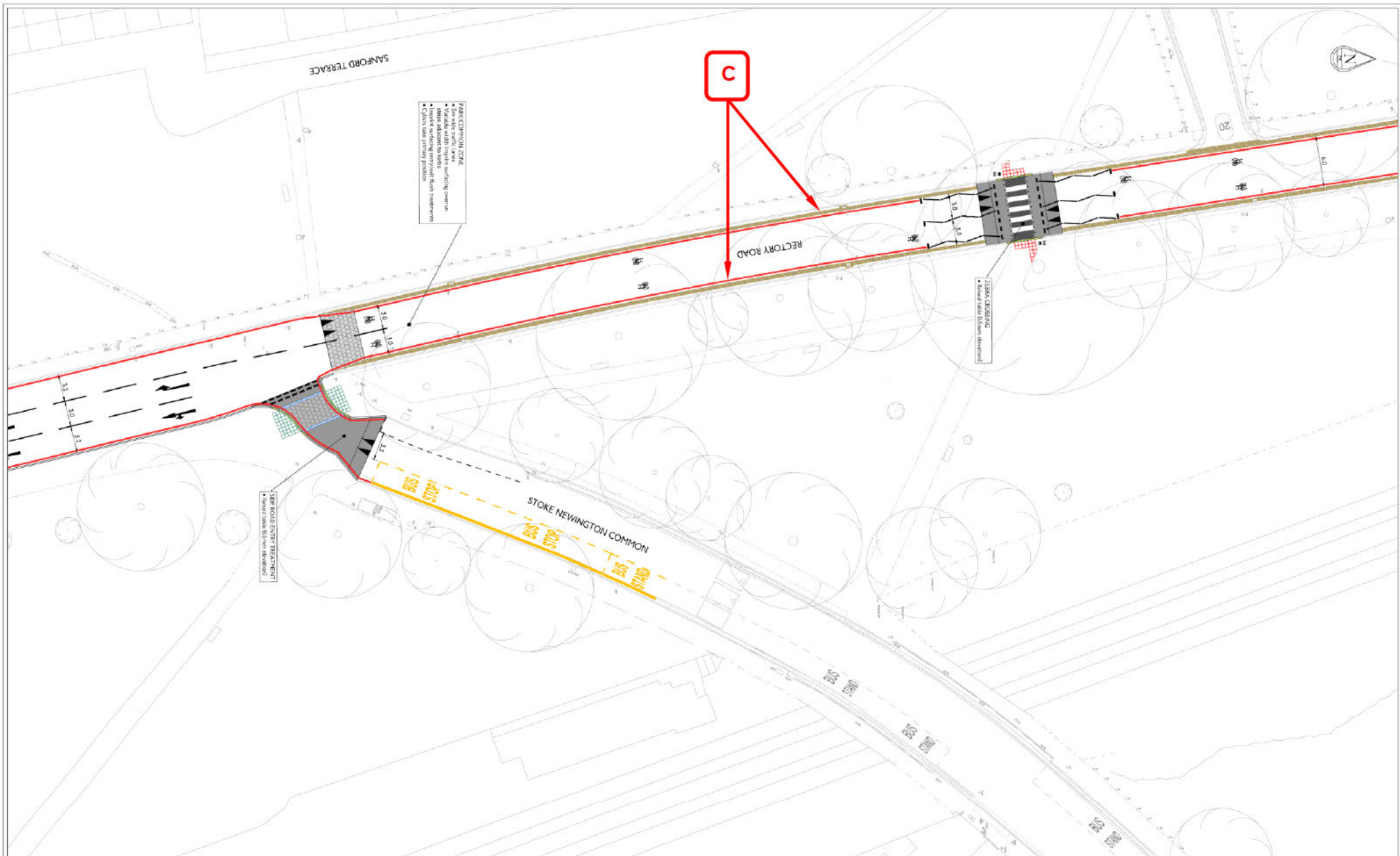
- ☒ Safety Audit Brief
- ☐ Site Location Plan
- ☐ Traffic signal details
- ☐ TfL signal safety checklist
- ☐ Departures from standard
- ☒ Previous Road Safety Audits
- ☐ Previous Designer Responses
- ☐ Collision data
- ☐ Collision plot
- ☐ Traffic flow / modelling data
- ☐ Pedestrian flow / modelling data
- ☐ Speed survey data
- ☐ Other documents

DETAILS (where appropriate)

3201/004/A10/TLRN/2018

APPENDIX B

Problem Locations



LEGEND

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> Proposed road marking - White Proposed road marking - Yellow Proposed road marking - Red Proposed kerb Proposed flush edging kerb Proposed dropped kerb Proposed transition kerb Proposed imprint surfacing | <ul style="list-style-type: none"> Proposed imprint surfacing (crossing) Proposed raised table/lamp Proposed flush overrun strips (imprint) Proposed shared area Proposed public realm enhancements (materials TBC) | <ul style="list-style-type: none"> Proposed traffic island (asphalt top) Proposed tactile paving - red Proposed tactile paving - grey Proposed corduroy paving - buff Proposed traffic signal Proposed bollards |
|--|--|---|

NOTES

- All designs to be in accordance with the Streetworks Code of Practice and signage to be in accordance with the current Traffic Signs Regulations and General Directions (TSRGD 2016).
- All dimensions in metres, unless otherwise stated.
- Critical dimensions are to be checked at detailed design stage.
- All signs to be mounted on existing lighting columns / sign posts where possible subject to structural assessment, where open field.
- Signs on footway to be mounted at a height to ensure a minimum vertical clearance of 2.3m to bottom of sign where cycling is permitted on the footway, otherwise to 2.7m.
- All signs to have a minimum horizontal clearance of 4.0m from kerb face.
- Proposed sign faces to be mounted using anti-rotational fixings where appropriate.
- Reversible contraflow road markings adjacent to kerb and carriageway widths to be agreed.
- All existing signs & lines to be retained or lines otherwise stated.
- Drawing based on 2D Topographical Survey undertaken by Land Survey dated 29/1/19 and provided by Adams.
- Setting out dimensions as proposed.
- All newly proposed signs to be retro-reflective to high performance classification K36.
- Carriageway condition to be assessed at detailed design stage.
- Street lighting to be assessed at detailed design stage.
- Carriageway & footway drainage to be assessed at detailed design stage.
- Design drawings should be made in accordance with the statutory utility survey plans.



DATE			
REV	DATE	DESCRIPTION	BY
001	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
002	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
003	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
004	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
005	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
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053	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
054	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
055	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
056	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
057	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
058	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
059	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
060	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
061	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
062	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
063	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
064	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
065	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
066	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
067	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
068	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
069	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
070	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
071	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
072	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
073	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
074	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
075	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
076	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
077	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
078	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
079	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
080	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
081	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
082	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
083	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
084	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
085	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
086	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
087	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
088	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
089	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
090	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
091	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
092	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
093	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
094	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
095	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
096	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
097	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
098	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
099	04/07/19	ISSUED FOR TENDERS	LB HACKNEY
100	04/07/19	ISSUED FOR TENDERS	LB HACKNEY

Road Space Management
 Outcomes Design Engineering

ST-PJ472C-RSM-FEA-04-DR-TE-01-001.3

LB HACKNEY
A10 STOKE NEWINGTON GYRATORY
FEASIBILITY DESIGN
TFL - OPTION 1

P00.2

DATE JULY 2019
TIME 1:30 PM
LOCATION 53
PROJECT ST-PJ472C-RSM-FEA-04-DR-TE-01-001.3

REV 001
DATE 04/07/19
DESCRIPTION ISSUED FOR TENDERS
BY LB HACKNEY
CHECKED LB HACKNEY
APPROVED LB HACKNEY